Southern Illinois University

Impact Preplant Burndown Tank-Mix Programs.
Trial ID: 17-6C Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 4-20-17
Completion Date: 6-15-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Upper Left: 38.514662 89.838155 **Upper Right:** 38.514937 89.838138
Latitude of LL Corner °: 38.514662 N **Lower Right:** 38.514955 89.83756
Longitude of LL Corner °: 89.837513 W USAIL 42.5083389 - 36.9702949
Altitude of LL Corner, Unit: 435.00 FT -87.0199279 - -91.5130844
Angle y-axis to North °: 270.00
GPS Precision: G GPS for trial site

Objectives:
Evaluate Impact preplant burndown tank-mix programs for performance and corn safety.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 63-33 **BBCH Scale:** BCOR
Description: SS RIB

Planting Date: 5-16-17
Planting Method: SEEDED
Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 69 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 3 Type: W **Code:** LAMPU Lamium purpureum L.
Common Name: deadnettle, purple

Pest 4 Type: W **Code:** RANAB Ranunculus abortivus L.
Common Name: buttercup, smallflower

Pest 5 Type: W **Code:** STEME Stellaria media (L.) Vill.
Common Name: chickweed, common

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 150 LB/A, P2O5 50 LB/A, K2O 100 LB/A

Soil Description

Description Name: 06C_2013
% OM: 2.9 **Texture:** SIL silt loam
pH: 6.7 **Soil Name:** Caseyville
CEC: 7

Additional Measured Elements

Element	Quantity	Unit
P1	63	lb/A
K	323	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	3-23-17	0.14	IN	RAIN	rain	1	DAY	36.7	60.4	F
2.	3-24-17	0.07	IN	RAIN	rain	1	DAY	49.7	77.6	F
3.	3-25-17	0.38	IN	RAIN	rain	1	DAY	54.2	65.7	F
4.	3-26-17	0	IN	RAIN	rain	1	DAY	46.8	62.9	F
5.	3-27-17	0.25	IN	RAIN	rain	1	DAY	45.8	58.3	F
6.	3-28-17	0	IN	RAIN	rain	1	DAY	53.4	59.8	F
7.	3-29-17	0	IN	RAIN	rain	1	DAY	46.1	68.1	F
8.	3-30-17	1.06	IN	RAIN	rain	1	DAY	50.3	72.8	F
9.	3-31-17	0.04	IN	RAIN	rain	1	DAY	44.4	51.8	F
10.	4-1-17	0	IN	RAIN	rain	1	DAY	38.8	59.5	F
11.	4-2-17	0.02	IN	RAIN	rain	1	DAY	44.5	67	F
12.	4-3-17	0.75	IN	RAIN	rain	1	DAY	57.4	70	F
13.	4-4-17	0	IN	RAIN	rain	1	DAY	54.1	66.4	F
14.	4-5-17	1.03	IN	RAIN	rain	1	DAY	40.8	61.6	F
15.	4-6-17	0.05	IN	RAIN	rain	1	DAY	42.8	58.1	F
16.	4-7-17	0	IN	RAIN	rain	1	DAY	40.7	60.8	F
17.	4-8-17	0	IN	RAIN	rain	1	DAY	41.3	73.7	F
18.	4-9-17	0	IN	RAIN	rain	1	DAY	60.9	78.8	F
19.	4-10-17	0.12	IN	RAIN	rain	1	DAY	58.5	77.4	F
20.	4-11-17	0	IN	RAIN	rain	1	DAY	43.3	61.6	F
21.	4-12-17	0	IN	RAIN	rain	1	DAY	38.8	73.1	F
22.	4-13-17	0	IN	RAIN	rain	1	DAY	48	81.5	F
23.	4-14-17	0.21	IN	RAIN	rain	1	DAY	57.5	81.9	F
24.	4-15-17	0	IN	RAIN	rain	1	DAY	63.8	83.3	F
25.	4-16-17	0	IN	RAIN	rain	1	DAY	57	75.5	F
26.	4-17-17	0	IN	RAIN	rain	1	DAY	49.6	68.3	F
27.	4-18-17	0	IN	RAIN	rain	1	DAY	49.7	77.9	F
28.	4-19-17	0	IN	RAIN	rain	1	DAY	58.8	86.4	F
29.	4-20-17	0	IN	RAIN	rain	1	DAY	58	82.5	F
30.	4-21-17	0.12	IN	RAIN	rain	1	DAY	49.4	59.4	F
31.	4-22-17	0.26	IN	RAIN	rain	1	DAY	43.1	59.1	F
32.	4-23-17	0	IN	RAIN	rain	1	DAY	40.5	72.9	F
33.	4-24-17	0	IN	RAIN	rain	1	DAY	40.7	76.7	F
34.	4-25-17	0	IN	RAIN	rain	1	DAY	47.3	80.1	F
35.	4-26-17	1.23	IN	RAIN	rain	1	DAY	51.4	75.5	F
36.	4-27-17	0.21	IN	RAIN	rain	1	DAY	48.7	62.2	F
37.	4-28-17	0.22	IN	RAIN	rain	1	DAY	52.5	60.2	F
38.	4-29-17	2.17	IN	RAIN	rain	1	DAY	57.5	79.1	F
39.	4-30-17	2.4	IN	RAIN	rain	1	DAY	54.8	71.7	F
40.	5-1-17	0	IN	RAIN	rain	1	DAY	47.8	58.4	F
41.	5-2-17	0	IN	RAIN	rain	1	DAY	46.3	70.5	F
42.	5-3-17	0.96	IN	RAIN	rain	1	DAY	46.9	57	F
43.	5-4-17	1.75	IN	RAIN	rain	1	DAY	47.6	52.1	F
44.	5-5-17	0	IN	RAIN	rain	1	DAY	46.3	66.9	F
45.	5-6-17	0	IN	RAIN	rain	1	DAY	45.7	68.3	F
46.	5-7-17	0	IN	RAIN	rain	1	DAY	43.5	74.7	F
47.	5-8-17	0	IN	RAIN	rain	1	DAY	50	83.1	F
48.	5-9-17	0	IN	RAIN	rain	1	DAY	59.6	88.2	F
49.	5-10-17	0.05	IN	RAIN	rain	1	DAY	62.6	86.3	F
50.	5-11-17	0.11	IN	RAIN	rain	1	DAY	61.9	75	F
51.	5-12-17	0	IN	RAIN	rain	1	DAY	55.1	73.3	F

52.	5-13-17	0	IN	RAIN	rain	1	DAY	50.8	82.2	F
53.	5-14-17	0	IN	RAIN	rain	1	DAY	55.1	84.1	F
54.	5-15-17	0	IN	RAIN	rain	1	DAY	57.3	85.9	F
55.	5-16-17	0	IN	RAIN	rain	1	DAY	63.5	86.6	F
56.	5-17-17	0	IN	RAIN	rain	1	DAY	68.5	83.6	F
57.	5-18-17	0	IN	RAIN	rain	1	DAY	68.2	88.5	F
58.	5-19-17	0.14	IN	RAIN	rain	1	DAY	58.6	84.4	F
59.	5-20-17	1.32	IN	RAIN	rain	1	DAY	58.2	79.1	F
60.	5-21-17	0	IN	RAIN	rain	1	DAY	53.1	71.5	F
61.	5-22-17	0	IN	RAIN	rain	1	DAY	50.2	76.1	F
62.	5-23-17	0.1	IN	RAIN	rain	1	DAY	56.8	73.8	F
63.	5-24-17	0	IN	RAIN	rain	1	DAY	53.9	68.5	F
64.	5-25-17	0	IN	RAIN	rain	1	DAY	54.6	76.7	F
65.	5-26-17	0	IN	RAIN	rain	1	DAY	55.9	81	F
66.	5-27-17	0.3	IN	RAIN	rain	1	DAY	64.2	83.6	F
67.	5-28-17	0	IN	RAIN	rain	1	DAY	62.8	79.4	F
68.	5-29-17	0.06	IN	RAIN	rain	1	DAY	59.8	86.2	F
69.	5-30-17	0	IN	RAIN	rain	1	DAY	56.4	81.8	F
70.	5-31-17	0	IN	RAIN	rain	1	DAY	55	82.9	F
71.	6-1-17	0	IN	RAIN	rain	1	DAY	56.7	83.8	F
72.	6-2-17	0	IN	RAIN	rain	1	DAY	60	90.9	F
73.	6-3-17	0	IN	RAIN	rain	1	DAY	64.1	89.5	F
74.	6-4-17	0.26	IN	RAIN	rain	1	DAY	67.8	87.6	F
75.	6-5-17	0.15	IN	RAIN	rain	1	DAY	68.1	90.2	F
76.	6-6-17	0	IN	RAIN	rain	1	DAY	61.7	81.4	F
77.	6-7-17	0	IN	RAIN	rain	1	DAY	53.9	79.9	F
78.	6-8-17	0	IN	RAIN	rain	1	DAY	52.3	81.1	F
79.	6-9-17	0	IN	RAIN	rain	1	DAY	54.9	85.6	F
80.	6-10-17	0	IN	RAIN	rain	1	DAY	58.8	86.2	F
81.	6-11-17	0	IN	RAIN	rain	1	DAY	62.4	90.1	F
82.	6-12-17	0	IN	RAIN	rain	1	DAY	65.9	92.6	F
83.	6-13-17	0	IN	RAIN	rain	1	DAY	75	93.7	F
84.	6-14-17	0.16	IN	RAIN	rain	1	DAY	68.3	92.1	F
85.	6-15-17	0.94	IN	RAIN	rain	1	DAY	66.5	88.6	F
86.	6-16-17	0	IN	RAIN	rain	1	DAY	68.8	88.5	F
87.	6-17-17	0.01	IN	RAIN	rain	1	DAY	71.2	88.2	F
88.	6-18-17	0.66	IN	RAIN	rain	1	DAY	65.2	82.9	F
89.	6-19-17	0	IN	RAIN	rain	1	DAY	63.4	86.1	F
90.	6-20-17	0	IN	RAIN	rain	1	DAY	60.6	89	F
91.	6-21-17	0	IN	RAIN	rain	1	DAY	68.2	92.6	F
92.	6-22-17	0.01	IN	RAIN	rain	1	DAY	71.7	83.4	F
93.	6-23-17	0.03	IN	RAIN	rain	1	DAY	68.8	86.9	F
94.	6-24-17	0	IN	RAIN	rain	1	DAY	56.8	79.2	F
95.	6-25-17	0	IN	RAIN	rain	1	DAY	53.7	83.2	F
96.	6-26-17	0	IN	RAIN	rain	1	DAY	51.4	79.5	F
97.	6-27-17	0	IN	RAIN	rain	1	DAY	51.8	81.7	F
98.	6-28-17	0	IN	RAIN	rain	1	DAY	57	86.6	F
99.	6-29-17	0	IN	RAIN	rain	1	DAY	68.2	91.4	F
100.	6-30-17	0.05	IN	RAIN	rain	1	DAY	69.6	85.6	F

Comment:
Rainfall was recorded on station and provided by Illinois Climate Network.
Air temperature was recorded at Scott Air Force Base 2.5 miles north and provided by NOAA's National Centers for Environmental Information.
Air temperatures given are summarized as weekly high and low, detailed weather data is available on request.

Application Description

	A
Application Date:	4-20-17
Appl. Start Time:	9:00
Appl. Stop Time:	9:30
Application Method:	Spray
Application Timing:	14DBP
Application Placement:	BROFOL
Applied By:	RFK
Air Temperature, Unit:	78 F
% Relative Humidity:	62
Wind Velocity, Unit:	4 MPH
Wind Direction:	S
Dew Presence (Y/N):	N
Soil Temperature, Unit:	65 F
Soil Moisture:	NORMAL
% Cloud Cover:	25
Next Moisture Occurred On:	4-21-17
Time to Next Moisture, Unit:	24 HR

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	ZEAMD
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMATA W
Pest 2 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	10+
Stage Minimum, Percent:	10+
Stage Maximum, Percent:	10+
Height, Unit:	6 IN
Height Minimum, Maximum:	2 8
Density, Unit:	1 FT2
Pest 3 Code, Type, Scale:	LAMPU W
Stage Majority, Percent:	10+
Stage Minimum, Percent:	10+
Stage Maximum, Percent:	10+
Height, Unit:	4 IN
Height Minimum, Maximum:	4 6
Density, Unit:	0.1 FT2
Pest 4 Code, Type, Scale:	RANAB W
Stage Majority, Percent:	10+
Stage Minimum, Percent:	10+
Stage Maximum, Percent:	10+
Height, Unit:	8 IN
Height Minimum, Maximum:	4 8
Density, Unit:	0.1 FT2
Pest 5 Code, Type, Scale:	STEME W
Stage Majority, Percent:	10
Stage Minimum, Percent:	10
Stage Maximum, Percent:	10
Height, Unit:	6 IN
Height Minimum, Maximum:	4 6
Density, Unit:	1 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Nozzle Spacing, Unit:	20 IN
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Impact Preplant Burndown Tank-Mix Programs.
Trial ID: 17-6C Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMBTR	AMBTR	AMBTR	AMBTR	LAMPU	LAMPU
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR	LAMPU	LAMPU
	Crop Code														
	Rating Date									5-4-17	5-18-17	6-1-17	6-15-17	5-4-17	5-18-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent	Percent
	Rating Timing									0 DAPP	14 DAPP	16 DAP	30 DAP	0 DAPP	14 DAPP
	Trt-Eval Interval									14 DA-A	28 DA-A	42 DA-A	56 DA-A	14 DA-A	28 DA-A
1	NONTREATED									0	0	0	0	0	0
2	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	88 a	80 a	99 a	99 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
3	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	92 a	83 a	99 a	99 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
4	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	92 a	87 a	99 a	99 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29.0	fl oz/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
5	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	90 a	83 a	99 a	99 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
6	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	92 a	87 a	99 a	99 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	2,4-D AMINE 4	3.8	SL	0.475	lb ai/a	1	pt/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
7	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	91 a	85 a	99 a	99 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	CLARITY	4	SL	0.5	lb ai/a	1.0	pt/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
8	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	89 a	82 a	99 a	99 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
9	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	91 a	83 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	14DBP	A						
	CLARITY	4	SL	0.5	lb ai/a	1.0	pt/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=19,20
Could not calculate LSD (% mean diff) for columns 8,12,7,11,10,9,13,17 because error mean square = 0.

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMBTR	AMBTR	AMBTR	AMBTR	LAMPU	LAMPU
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR	LAMPU	LAMPU
	Crop Code														
	Rating Date									5-4-17	5-18-17	6-1-17	6-15-17	5-4-17	5-18-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent	Percent
	Rating Timing									0 DAPP	14 DAPP	16 DAP	30 DAP	0 DAPP	14 DAPP
	Trt-Eval Interval									14 DA-A	28 DA-A	42 DA-A	56 DA-A	14 DA-A	28 DA-A
10	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	14DBP	A	99 a	99 a	0 b	0 b	99 a	99 a
	CLARITY	4	SL	0.5	lb ai/a	1.0	pt/a	14DBP	A						
	LSD P=.05									.	.	7.2	8.2	.	.
	Standard Deviation									0.0	0.0	4.9	5.5	0.0	0.0
	CV									0.0	0.0	6.14	7.34	0.0	0.0
	Replicate F									0.000	0.000	1.287	0.248	0.000	0.000
	Replicate Prob(F)									1.0000	1.0000	0.3015	0.8615	1.0000	1.0000
	Treatment F									0.000	0.000	149.833	105.023	0.000	0.000
	Treatment Prob(F)									1.0000	1.0000	0.0001	0.0001	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=19,20
Could not calculate LSD (% mean diff) for columns 8,12,7,11,10,9,13,17 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	RANAB	RANAB	STEME	STEME	AMATA	AMATA
	Pest Code									RANAB	RANAB	STEME	STEME	AMATA	AMATA
	Crop Code														
	Rating Date									5-4-17	5-18-17	5-4-17	5-18-17	6-1-17	6-15-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent	Percent
	Rating Timing									0 DAPP	14 DAPP	0 DAPP	14 DAPP	16 DAP	30 DAP
	Trt-Eval Interval									14 DA-A	28 DA-A	14 DA-A	28 DA-A	42 DA-A	56 DA-A
1	NONTREATED									0	0	0	0	0	0
2	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	95 abc	99 a	99 a	99 a	94 a	93 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
3	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	95 bc	99 a	99 a	99 a	95 a	96 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
4	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	94 c	99 a	99 a	99 a	93 a	91 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29.0	fl oz/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
5	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	98 ab	99 a	98 a	99 a	94 a	93 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
6	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	95 bc	99 a	99 a	99 a	95 a	93 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	2,4-D AMINE 4	3.8	SL	0.475	lb ai/a	1	pt/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
7	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 ab	99 a	99 a	99 a	99 a	99 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	CLARITY	4	SL	0.5	lb ai/a	1.0	pt/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
8	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	99 a	99 a	92 a	95 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A						
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
9	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	99 a	99 a	99 a	99 a	97 a	96 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	14DBP	A						
	CLARITY	4	SL	0.5	lb ai/a	1.0	pt/a	14DBP	A						
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A						
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=19,20
Could not calculate LSD (% mean diff) for columns 8,12,7,11,10,9,13,17 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	RANAB	RANAB	STEME	STEME	AMATA	AMATA
	Pest Code									RANAB	RANAB	STEME	STEME	AMATA	AMATA
	Crop Code														
	Rating Date									5-4-17	5-18-17	5-4-17	5-18-17	6-1-17	6-15-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent	Percent
	Rating Timing									0 DAPP	14 DAPP	0 DAPP	14 DAPP	16 DAP	30 DAP
	Trt-Eval Interval									14 DA-A	28 DA-A	14 DA-A	28 DA-A	42 DA-A	56 DA-A
10	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	14DBP	A	99 a	99 a	99 a	99 a	0 b	0 b
	CLARITY	4	SL	0.5	lb ai/a	1.0	pt/a	14DBP	A						
	LSD P=.05									4.3	.	1.0	.	9.3	9.0
	Standard Deviation									3.0	0.0	0.7	0.0	6.4	6.0
	CV									3.08	0.0	0.67	0.0	7.55	7.15
	Replicate F									0.514	0.000	1.000	0.000	2.265	2.850
	Replicate Prob(F)									0.6767	1.0000	0.4098	1.0000	0.1067	0.0703
	Treatment F									2.460	0.000	1.000	0.000	99.063	110.549
	Treatment Prob(F)									0.0421	1.0000	0.4613	1.0000	0.0001	0.0001

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Missing data estimates are included in columns:Average=19,20
Could not calculate LSD (% mean diff) for columns 8,12,7,11,10,9,13,17 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	SETFA 6-1-17 Control Percent 16 DAP 42 DA-A	SETFA 6-15-17 Control Percent 30 DAP 56 DA-A	ZEAMD 6-1-17 Injury Percent 16 DAP 42 DA-A	ZEAMD 6-15-17 Injury Percent 30 DAP 56 DA-A
1	NONTREATED									0	0	0 a	0 a
2	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	50 b	0 b	0 a	0 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A				
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A				
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
3	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	59 ab	0 b	0 a	0 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	14DBP	A				
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A				
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
4	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	80 a	25 b	0 a	0 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29.0	fl oz/a	14DBP	A				
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A				
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
5	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	69 ab	20 b	0 a	0 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A				
	SHARPEN	2.85	SC	0.0223	lb ai/a	1.0	fl oz/a	14DBP	A				
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A				
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
6	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	45 b	13 b	0 a	0 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A				
	2,4-D AMINE 4	3.8	SL	0.475	lb ai/a	1	pt/a	14DBP	A				
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A				
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
7	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	68 ab	33 ab	0 a	0 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A				
	CLARITY	4	SL	0.5	lb ai/a	1.0	pt/a	14DBP	A				
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A				
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
8	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	51 b	13 b	0 a	0 a
	IMPACT	2.8	SC	0.0164	lb ai/a	0.75	fl oz/a	14DBP	A				
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	14DBP	A				
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A				
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
9	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	1.25	pt/a	14DBP	A	85 a	64 a	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	14DBP	A				
	CLARITY	4	SL	0.5	lb ai/a	1.0	pt/a	14DBP	A				
	AATREX 4L	4	SC	1.0	lb ai/a	2.0	pt/a	14DBP	A				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	14DBP	A				
	28% UAN	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				

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Missing data estimates are included in columns:Average=19,20
Could not calculate LSD (% mean diff) for columns 8,12,7,11,10,9,13,17 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
Pest Code										SETFA	SETFA		
Crop Code												ZEAMD	ZEAMD
Rating Date										6-1-17	6-15-17	6-1-17	6-15-17
Rating Type										Control	Control	Injury	Injury
Rating Unit										Percent	Percent	Percent	Percent
Rating Timing										16 DAP	30 DAP	16 DAP	30 DAP
Trt-Eval Interval										42 DA-A	56 DA-A	42 DA-A	56 DA-A
10	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	14DBP	A	0 c	0 b	0 a	0 a
	CLARITY	4	SL	0.5	lb ai/a	1.0	pt/a	14DBP	A				
LSD P=.05										28.6	35.9	.	.
Standard Deviation										19.6	24.6	0.0	0.0
CV										34.88	133.25	0.0	0.0
Replicate F										0.858	1.074	0.000	0.000
Replicate Prob(F)										0.4763	0.3788	1.0000	1.0000
Treatment F										6.538	2.795	0.000	0.000
Treatment Prob(F)										0.0002	0.0244	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=19,20
Could not calculate LSD (% mean diff) for columns 8,12,7,11,10,9,13,17 because error mean square = 0.

Southern Illinois University

Impact Preplant Burndown Tank-Mix Programs.
Trial ID: 17-6C Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: AMVAC (17C04H061).
2. Ratings:
   CI 14 and 28 DAP.
   WC 0, 14, 28, and 42 DAP.
3. Yield not requested.
4. Target winter annual and early emerging summer annuals for burndown rating at 0 DAP.
   Rate residual control for weeds emerging after planting.
   Treatment 10 is burndown without residual, best comparison when rating residual WC.
5. Report by Sept 15.

Rainfall following the 14DBP application A was 0.38 inch over 2 days beginning 24 hours later, and 8.94 inch over 7 days beginning 6 days after application.

Ratings on 5-4-17 at 14 DA-A were at the planned planting date (0 DAPP), planting was delayed due to wet soil conditions.
Ratings on 5-18-17 at 28 DA-A were 14 days after the planned planting date (14 DAPP), planting was delayed due to wet soil conditions.

At 28 DA-A on 5-18-17 there were no summer annuals emerging in the nontreated plots, so too soon to rate summer annual weed control.

Southern Illinois University

Liberty Rates, Tank-Mix Partners and Timing in No-Till Marestail Burndown ahead of Corn.
Trial ID: 17-DSO-Bayer-WGJ Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 4-18-17
Completion Date: 6-6-17

Trial Location

City: De Soto **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62924

Latitude of LL Corner °: 37.796712 N
Longitude of LL Corner °: 89.262938 W
Altitude of LL Corner, Unit: 380.00 FT
Angle y-axis to North °: 0.00
GPS Precision: G GPS for trial site

Objectives:
Evaluate new Liberty rates as a burndown product on non-LL corn acres.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: NONE Non-crop
Planting Method: NA

Pest Description

Pest 1 Type: W **Code:** ERICA Conyza canadensis (L.) Crong.
Common Name: horseweed
Description: glyphosate-resistant marestail

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	NONE	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: DSO_west_2016
% Sand: 15.4 **% OM:** 1.96 **Texture:** SIL silt loam
% Silt: 64.7 **pH:** 7.1 **Soil Name:** Okaw
% Clay: 19.9 **CEC:** 7.91

Additional Measured Elements

Element	Quantity	Unit
P1	52	lb/A
K	278	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: SOUTHERN IL AIRPORT (93810) **Distance, Unit:** 1.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	3-25-17					7	DAY	46	71	F
2.	3-25-17	0.12	IN	RAIN	rain	1	DAY			
3.	3-27-17	0.26	IN	RAIN	rain	1	DAY			
4.	3-30-17	0.66	IN	RAIN	rain	1	DAY			
5.	4-1-17					7	DAY	40	72	F
6.	4-3-17	0.47	IN	RAIN	rain	1	DAY			
7.	4-5-17	0.92	IN	RAIN	rain	1	DAY			
8.	4-6-17	0.06	IN	RAIN	rain	1	DAY			
9.	4-8-17					7	DAY	37	82	F
10.	4-10-17	0.09	IN	RAIN	rain	2	DAY			
11.	4-15-17					7	DAY	50	81	F
12.	4-16-17	0.85	IN	RAIN	rain	3	DAY			
13.	4-20-17	1.6	IN	RAIN	rain	3	DAY			
14.	4-22-17					7	DAY	41	77	F
15.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
16.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
17.	4-29-17					7	DAY	45	82	F
18.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
19.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
20.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
21.	5-6-17					7	DAY	42	83	F
22.	5-13-17					7	DAY	50	85	F
23.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
24.	5-20-17					7	DAY	51	84	F
25.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
26.	5-27-17					7	DAY	56	87	F
27.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
28.	6-3-17					7	DAY	54	87	F
29.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
30.	6-10-17					7	DAY	57	92	F
31.	6-15-17	0.13	IN	RAIN	rain	1	DAY			
32.	6-17-17					7	DAY	61	90	F
33.	6-18-17	0.8	IN	RAIN	rain	1	DAY			
34.	6-22-17	1.02	IN	RAIN	rain	2	DAY			
35.	6-24-17					7	DAY	54	87	F

Application Description

	A	B
Application Date:	4-18-17	5-8-17
Appl. Start Time:	13:50	9:20
Appl. Stop Time:	14:50	10:00
Interval to Prev. Appl., Unit:		20 DAYS
Application Method:	Spray	Spray
Application Timing:	3-4"MT	6-8"MT
Application Placement:	BROFOL	BROFOL
Applied By:	MCG	MCG
Air Temperature, Unit:	76 F	71 F
% Relative Humidity:	67	59
Wind Velocity, Unit:	3 MPH	3 MPH
Wind Direction:	S	SE
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	63 F	62 F
Soil Moisture:	NORMAL	ABONOR
% Cloud Cover:	75	0
Next Moisture Occurred On:	4-20-17	5-18-17
Time to Next Moisture, Unit:	2 DAY	10 DAY

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	NONE	NONE
Stage Scale Used:	NA	NA

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ERICA W	ERICA W
Stage Majority, Percent:	35	45
Stage Minimum, Percent:	COT	8
Stage Maximum, Percent:	50+	50+
Height, Unit:	3 IN	10 IN
Height Minimum, Maximum:	0.1 5	4 16
Density, Unit:	10 FT2	12 FT2

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	XR
Nozzle Size:	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

Liberty Rates, Tank-Mix Partners and Timing in No-Till Marestail Burndown ahead of Corn.
Trial ID: 17-DSO-Bayer-WGJ Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ERICA	ERICA	ERICA	ERICA	ERICA
	Pest Code									ERICA	ERICA	ERICA	ERICA	ERICA
	Crop Code													
	Rating Date									4-25-17	5-5-17	5-16-17	5-23-17	6-6-17
	Rating Type									Burndown	Burndown	Burndown	Burndown	Burndown
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									7 DA-A	17 DA-A	8 DA-B	15 DA-B	29 DA-B
1	NONTREATED									0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"MT	A	94 bc	97 a	97 abc		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"MT	A					
	2,4-D AMINE 4	3.8	SL	0.71	lb ae/a	1.5	pt/a	3-4"MT	A					
3	LIBERTY 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	3-4"MT	A	94 bc	97 a	98 ab		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"MT	A					
	2,4-D AMINE 4	3.8	SL	0.71	lb ae/a	1.5	pt/a	3-4"MT	A					
4	LIBERTY 280	2.34	EC	0.79	lb ai/a	43	fl oz/a	3-4"MT	A	93 bc	97 a	98 ab		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"MT	A					
	2,4-D AMINE 4	3.8	SL	0.71	lb ae/a	1.5	pt/a	3-4"MT	A					
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"MT	A	98 a	99 a	98 ab		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"MT	A					
	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	3-4"MT	A					
6	LIBERTY 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	3-4"MT	A	98 a	99 a	99 a		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"MT	A					
	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	3-4"MT	A					
7	LIBERTY 280	2.34	EC	0.79	lb ai/a	43	fl oz/a	3-4"MT	A	98 a	99 a	97 abc		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"MT	A					
	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	3-4"MT	A					
8	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"MT	A	93 bc	94 b	92 def		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"MT	A					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	3-4"MT	A					
9	LIBERTY 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	3-4"MT	A	92 c	98 a	96 a-d		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"MT	A					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	3-4"MT	A					
10	LIBERTY 280	2.34	EC	0.79	lb ai/a	43	fl oz/a	3-4"MT	A	95 b	99 a	97 abc		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"MT	A					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	3-4"MT	A					
11	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	6-8"MT	B			91 f	82 e	73 e
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	2,4-D AMINE 4	3.8	SL	0.71	lb ae/a	1.5	pt/a	6-8"MT	B					
12	LIBERTY 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	6-8"MT	B			92 ef	87 d	77 de
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	2,4-D AMINE 4	3.8	SL	0.71	lb ae/a	1.5	pt/a	6-8"MT	B					
13	LIBERTY 280	2.34	EC	0.79	lb ai/a	43	fl oz/a	6-8"MT	B			94 c-f	93 c	83 cd
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	2,4-D AMINE 4	3.8	SL	0.71	lb ae/a	1.5	pt/a	6-8"MT	B					
14	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	6-8"MT	B			94 b-f	94 bc	85 bcd
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	6-8"MT	B					
15	LIBERTY 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	6-8"MT	B			96 a-e	95 abc	87 bc
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	6-8"MT	B					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									ERICA	ERICA	ERICA	ERICA	ERICA
	Crop Code													
	Rating Date									4-25-17	5-5-17	5-16-17	5-23-17	6-6-17
	Rating Type									Burndown	Burndown	Burndown	Burndown	Burndown
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									7 DA-A	17 DA-A	8 DA-B	15 DA-B	29 DA-B
16	LIBERTY 280	2.34	EC	0.79	lb ai/a	43	fl oz/a	6-8"MT	B			96 abc	96 abc	91 abc
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	SHARPEN	2.85	SC	0.0445	lb ai/a	2	fl oz/a	6-8"MT	B					
17	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	6-8"MT	B			91 f	95 abc	87 bc
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	6-8"MT	B					
18	LIBERTY 280	2.34	EC	0.66	lb ai/a	36	fl oz/a	6-8"MT	B			95 b-e	98 ab	94 ab
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	6-8"MT	B					
19	LIBERTY 280	2.34	EC	0.79	lb ai/a	43	fl oz/a	6-8"MT	B			95 a-e	97 ab	93 ab
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	6-8"MT	B					
20	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	6-8"MT	B			96 a-e	98 a	98 a
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"MT	B					
	ROUNDUP PMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	6-8"MT	B					
	SENCOR DF	75	DF	0.375	lb ai/a	8	oz/a	6-8"MT	B					
	LSD P=.05									2.6	2.5	3.7	3.6	9.6
	Standard Deviation									1.5	1.4	2.3	2.1	5.6
	CV									1.59	1.46	2.37	2.22	6.45
	Replicate F									3.636	1.164	4.656	4.554	3.062
	Replicate Prob(F)									0.0499	0.3374	0.0159	0.0251	0.0717
	Treatment F									9.200	4.014	3.514	18.396	5.821
	Treatment Prob(F)									0.0001	0.0087	0.0007	0.0001	0.0008

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Southern Illinois University

Liberty Rates, Tank-Mix Partners and Timing in No-Till Marestail Burndown ahead of Corn.

Trial ID: 17-DSO-Bayer-WGJ Location: De Soto, IL Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Bayer (WGJ).
2. Ratings:
   CI none, noncrop.
   WC 7, 14, and 28 DA-A, WC 7, 14, and 28 DA-B.
   Rate burndown only, do not let new emergence factor into burndown rating.
3. No yield (noncrop).
4. Target GR-marestail and rate other weeds of appropriate size at application.
5. Photos

Rainfall following application A was 1.60" over 3 days beginning 52 hours after application.
Rainfall following application B was 0.04" over 1 day beginning 10 days after application.
The first substantial rainfall event following application B was 1.61" over 1 day beginning 12 days after application.

It was very windy when photos were taken on 5-5-17 at 17 DA-A. Some plots with good control but showing a lot of green in the photo might just be showing leaf litter.

Southern Illinois University

Diflexx Early Season Applications in Corn Compard to Competitors.
Trial ID: 17-21S-E60 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-17-17
Completion Date: 7-6-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.520864 N
Longitude of LL Corner °: 89.84345 W
Angle y-axis to North °: 180.00
GPS Precision: G GPS for trial site

Objectives:
Evaluate Diflexx in an early season application, compare the early season safety of Diflexx to that of Status, and evalaute the safety of Diflexx in combination with competitors products.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 63-33 **BBCH Scale:** BCOR
Description: SS RIB

Planting Date: 5-17-17
Planting Method: SEEDED

Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 68 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 4 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Pest 5 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A
2.	FERT	N 150 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: 21S_2013
% OM: 3 **Texture:** SIL silt loam
pH: 6.5 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	40	lb/A
K	318	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-29-17					7	DAY	45	77	F
2.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
3.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
4.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
5.	5-6-17					7	DAY	43	87	F
6.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
7.	5-13-17					7	DAY	51	87	F
8.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
9.	5-20-17					7	DAY	50	80	F
10.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
11.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
12.	5-27-17					7	DAY	55	87	F
13.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
14.	6-3-17					7	DAY	54	89	F
15.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
16.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
17.	6-17-17					7	DAY	62	92	F
18.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
19.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
20.	6-24-17					7	DAY	53	91	F
21.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
22.	7-1-17					7	DAY	60	93	F
23.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
24.	7-8-17					7	DAY	67	98	F

Application Description

	A
Application Date:	5-26-17
Appl. Start Time:	16:20
Appl. Stop Time:	16:50
Application Method:	Spray
Application Timing:	V1-V2
Application Placement:	BROFOL
Applied By:	RLS
Air Temperature, Unit:	76 F
% Relative Humidity:	72
Wind Velocity, Unit:	11 MPH
Wind Direction:	SSW
Dew Presence (Y/N):	N
Soil Temperature, Unit:	67 F
Soil Moisture:	NORMAL
% Cloud Cover:	45
Next Moisture Occurred On:	5-27-17
Time to Next Moisture, Unit:	24 HR

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	ZEAMD
Stage Scale Used:	DESC
Stage Majority, Percent:	V1
Stage Minimum, Percent:	V1
Stage Maximum, Percent:	V1
Height, Unit:	1 IN
Height Minimum, Maximum:	0.5 1.5

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ABUTH W
Stage Majority, Percent:	N/A
Pest 2 Code, Type, Scale:	AMATA W
Stage Majority, Percent:	N/A
Pest 3 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	4
Stage Minimum, Percent:	2
Stage Maximum, Percent:	4
Height, Unit:	0.5 IN
Height Minimum, Maximum:	0.25 1
Density, Unit:	0.7 FT2
Pest 4 Code, Type, Scale:	XANST W
Stage Majority, Percent:	4
Stage Minimum, Percent:	COTY
Stage Maximum, Percent:	4
Height, Unit:	5 IN
Height Minimum, Maximum:	0.25 1
Density, Unit:	5 FT2
Pest 5 Code, Type, Scale:	SETFA W
Stage Majority, Percent:	1
Stage Minimum, Percent:	1
Stage Maximum, Percent:	2
Height, Unit:	0.25 IN
Height Minimum, Maximum:	0.25 0.25
Density, Unit:	0.3 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Nozzle Spacing, Unit:	20 IN
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Diflexx Early Season Applications in Corn Compard to Competitors.
Trial ID: 17-21S-E60 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code														
Crop Code										ZEAMD	ZEAMD	AMATA	AMATA	AMATA
Rating Date										5-31-17	6-9-17	6-9-17	6-21-17	7-6-17
Rating Type										Injury	Injury	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing														
Trt-Eval Interval										5 DA-A	14 DA-A	14 DA-A	25 DA-A	40 DA-A
1	NONTREATED									0	0	0	0	0
2	CORVUS	2.63	SC	0.0925	lb ai/a	4.5	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
3	ACURON	3.44	CS	1.72	lb ai/a	64	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
4	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	V1-V2	A	0 a	0 a	99 a	98 a	99 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V1-V2	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
5	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
6	CORVUS	2.63	SC	0.0925	lb ai/a	4.5	fl oz/a	V1-V2	A	0 a	0 a	99 a	98 a	98 a
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
7	ACURON	3.44	CS	1.72	lb ai/a	64	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
8	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	V1-V2	A	0 a	0 a	99 a	98 a	99 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V1-V2	A					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
9	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
10	CORVUS	2.63	SC	0.0925	lb ai/a	4.5	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
11	ACURON	3.44	CS	1.72	lb ai/a	64	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
12	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V1-V2	A					
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,7,11
Could not calculate LSD (% mean diff) for columns 5,6,10 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code											AMATA	AMATA	AMATA
	Crop Code									ZEAMD	ZEAMD			
	Rating Date									5-31-17	6-9-17	6-9-17	6-21-17	7-6-17
	Rating Type									Injury	Injury	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									5 DA-A	14 DA-A	14 DA-A	25 DA-A	40 DA-A
13	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
14	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	0 a	0 a	99 a	99 a	99 a
	CLARITY	4	SL	0.25	lb ae/a	8	fl oz/a	V1-V2	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A					
	LSD P=.05									.	.	.	1.3	0.6
	Standard Deviation									0.0	0.0	0.0	0.8	0.3
	CV									0.0	0.0	0.0	0.79	0.35
	Replicate F									0.000	0.000	0.000	1.183	1.929
	Replicate Prob(F)									1.0000	1.0000	1.0000	0.3236	0.1672
	Treatment F									0.000	0.000	0.000	0.873	1.000
	Treatment Prob(F)									1.0000	1.0000	1.0000	0.5828	0.4777

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,7,11
Could not calculate LSD (% mean diff) for columns 5,6,10 because error mean square = 0.

Pest Code										AMBTR	AMBTR	AMBTR
Crop Code												
Rating Date										6-9-17	6-21-17	7-6-17
Rating Type										Control	Control	Control
Rating Unit										0-99	0-99	0-99
Rating Timing												
Trt-Eval Interval										14 DA-A	25 DA-A	40 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									0	0	0
2	CORVUS	2.63	SC	0.0925	lb ai/a	4.5	fl oz/a	V1-V2	A	87 def	83 ef	75 bc
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
3	ACURON	3.44	CS	1.72	lb ai/a	64	fl oz/a	V1-V2	A	88 cde	89 a-e	88 ab
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
4	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	V1-V2	A	73 g	70 g	40 d
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V1-V2	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
5	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	82 f	77 fg	70 c
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
6	CORVUS	2.63	SC	0.0925	lb ai/a	4.5	fl oz/a	V1-V2	A	97 a	97 a	97 a
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
7	ACURON	3.44	CS	1.72	lb ai/a	64	fl oz/a	V1-V2	A	95 ab	93 abc	95 a
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
8	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	V1-V2	A	92 a-d	87 cde	84 abc
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V1-V2	A			
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
9	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	96 ab	95 ab	95 a
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
10	CORVUS	2.63	SC	0.0925	lb ai/a	4.5	fl oz/a	V1-V2	A	92 a-d	92 a-d	90 ab
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
11	ACURON	3.44	CS	1.72	lb ai/a	64	fl oz/a	V1-V2	A	95 abc	88 b-e	91 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
12	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	V1-V2	A	85 ef	85 de	84 abc
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V1-V2	A			
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,7,11
Could not calculate LSD (% mean diff) for columns 5,6,10 because error mean square = 0.

Pest Code									AMBTR	AMBTR	AMBTR
Crop Code											
Rating Date									6-9-17	6-21-17	7-6-17
Rating Type									Control	Control	Control
Rating Unit									0-99	0-99	0-99
Rating Timing											
Trt-Eval Interval									14 DA-A	25 DA-A	40 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
13	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	90 b-e	85 de	83 abc
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
14	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	96 ab	94 abc	94 a
	CLARITY	4	SL	0.25	lb ae/a	8	fl oz/a	V1-V2	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A			
LSD P=.05										6.4	8.2	15.1
Standard Deviation										3.8	4.9	9.0
CV										4.23	5.58	10.72
Replicate F										0.518	0.828	3.199
Replicate Prob(F)										0.6023	0.4489	0.0586
Treatment F										9.708	7.327	8.838
Treatment Prob(F)										0.0001	0.0001	0.0001

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,7,11
Could not calculate LSD (% mean diff) for columns 5,6,10 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	XANST	XANST	XANST	SETFA	SETFA	SETFA
	Pest Code									XANST	XANST	XANST	SETFA	SETFA	SETFA
	Crop Code														
	Rating Date									6-9-17	6-21-17	7-6-17	6-9-17	6-21-17	7-6-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									14 DA-A	25 DA-A	40 DA-A	14 DA-A	25 DA-A	40 DA-A
1	NONTREATED									0	0	0	0	0	0
2	CORVUS	2.63	SC	0.0925	lb ai/a	4.5	fl oz/a	V1-V2	A	93 a-d	90 ab	91 a	98 a	91 bcd	95 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
3	ACURON	3.44	CS	1.72	lb ai/a	64	fl oz/a	V1-V2	A	95 abc	93 ab	94 a	99 a	99 a	98 a
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
4	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	V1-V2	A	88 d	77 c	83 a	99 a	90 cd	94 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V1-V2	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
5	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	93 bcd	88 b	93 a	99 a	95 abc	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
6	CORVUS	2.63	SC	0.0925	lb ai/a	4.5	fl oz/a	V1-V2	A	97 abc	96 ab	96 a	99 a	97 ab	97 a
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
7	ACURON	3.44	CS	1.72	lb ai/a	64	fl oz/a	V1-V2	A	98 ab	95 ab	99 a	99 a	98 ab	99 a
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
8	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	V1-V2	A	96 abc	93 ab	99 a	98 a	73 e	89 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V1-V2	A						
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
9	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	98 a	97 a	98 a	99 a	99 a	99 a
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	V1-V2	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
10	CORVUS	2.63	SC	0.0925	lb ai/a	4.5	fl oz/a	V1-V2	A	95 abc	90 ab	96 a	98 a	92 abc	96 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
11	ACURON	3.44	CS	1.72	lb ai/a	64	fl oz/a	V1-V2	A	92 cd	90 ab	97 a	99 a	96 abc	98 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
12	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	V1-V2	A	92 cd	90 ab	93 a	99 a	85 d	91 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V1-V2	A						
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						

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Missing data estimates are included in columns:Average=8,7,11
Could not calculate LSD (% mean diff) for columns 5,6,10 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	XANST	XANST	XANST	SETFA	SETFA	SETFA
	Pest Code									XANST	XANST	XANST	SETFA	SETFA	SETFA
	Crop Code														
	Rating Date									6-9-17	6-21-17	7-6-17	6-9-17	6-21-17	7-6-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									14 DA-A	25 DA-A	40 DA-A	14 DA-A	25 DA-A	40 DA-A
13	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	93 bcd	90 ab	96 a	99 a	98 ab	98 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	V1-V2	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
14	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V1-V2	A	98 ab	95 ab	99 a	99 a	98 a	99 a
	CLARITY	4	SL	0.25	lb ae/a	8	fl oz/a	V1-V2	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	V1-V2	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1-V2	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1-V2	A						
	LSD P=.05									5.6	9.0	15.9	1.6	7.1	6.8
	Standard Deviation									3.3	5.2	9.4	1.0	4.2	4.0
	CV									3.52	5.69	9.94	0.99	4.52	4.17
	Replicate F									5.073	7.566	1.606	0.188	2.119	0.107
	Replicate Prob(F)									0.0165	0.0049	0.2216	0.8302	0.1421	0.8991
	Treatment F									2.430	3.018	0.656	0.920	9.011	1.929
	Treatment Prob(F)									0.0382	0.0208	0.7743	0.5431	0.0001	0.0826

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Could not calculate LSD (% mean diff) for columns 5,6,10 because error mean square = 0.

Southern Illinois University

Diflexx Early Season Applications in Corn Compard to Competitors.
Trial ID: 17-21S-E60 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Bayer (WMW).
2. Ratings:
   CI 7 and 14 DA-A, describe symptoms.
   WC 14, 28, and 42 DA-A.
   Record percent ground cover of each weed rated in each nontreated at each rating.
3. Yield not requested.
4. Blanket fungicides and insecticides as needed.
5. Photos not requested.

Rainfall following application A was 0.30" over 1 day beginning 24 hours after application.

Southern Illinois University

Diflexx Duo Mid-Postemergence Applications in Corn Compared to Competitors.
Trial ID: 17-21S-ME40 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-17-17
Completion Date: 7-18-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.520875 N
Longitude of LL Corner °: 89.843953 W
Angle y-axis to North °: 180.00
GPS Precision: G GPS for trial site

Objectives:
Demonstrate the value of Diflexx Duo compared to competitive products.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 63-33 **BBCH Scale:** BCOR
Description: SS RIB

Planting Date: 5-17-17
Planting Method: SEEDED
Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 68 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 4 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Pest 5 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 150 LB/A, P2O5 50 LB/A, K2O 150 LB/A

Soil Description

Description Name: 21S_2013
% OM: 3 **Texture:** SIL silt loam
pH: 6.5 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	40	lb/A
K	318	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-29-17					7	DAY	45	77	F
2.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
3.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
4.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
5.	5-6-17					7	DAY	43	87	F
6.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
7.	5-13-17					7	DAY	51	87	F
8.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
9.	5-20-17					7	DAY	50	80	F
10.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
11.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
12.	5-27-17					7	DAY	55	87	F
13.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
14.	6-3-17					7	DAY	54	89	F
15.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
16.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
17.	6-17-17					7	DAY	62	92	F
18.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
19.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
20.	6-24-17					7	DAY	53	91	F
21.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
22.	7-1-17					7	DAY	60	93	F
23.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
24.	7-8-17					7	DAY	67	98	F
25.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
26.	7-15-17					7	DAY	60	91	F
27.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
28.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
29.	7-22-17					7	DAY	69	99	F

Application Description

	A
Application Date:	6-5-17
Appl. Start Time:	10:10
Appl. Stop Time:	10:40
Application Method:	Spray
Application Timing:	2-4"W
Application Placement:	BROFOL
Applied By:	RLS
Air Temperature, Unit:	83 F
% Relative Humidity:	66
Wind Velocity, Unit:	6 MPH
Wind Direction:	NE
Dew Presence (Y/N):	Y
Soil Temperature, Unit:	75 F
Soil Moisture:	NORMAL
% Cloud Cover:	20
Next Moisture Occurred On:	6-14-17
Time to Next Moisture, Unit:	9 DAY

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	ZEAMD
Stage Scale Used:	DESC
Stage Majority, Percent:	V4
Stage Minimum, Percent:	V3
Stage Maximum, Percent:	V4
Height, Unit:	5 IN
Height Minimum, Maximum:	4 6

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ABUTH W
Stage Majority, Percent:	4
Stage Minimum, Percent:	2
Stage Maximum, Percent:	6
Height, Unit:	2.5 IN
Height Minimum, Maximum:	0.5 4
Density, Unit:	0.9 FT2
Pest 2 Code, Type, Scale:	AMATA W
Stage Majority, Percent:	4
Stage Minimum, Percent:	4
Stage Maximum, Percent:	6
Height, Unit:	1 IN
Height Minimum, Maximum:	0.5 2
Density, Unit:	0.5 FT2
Pest 3 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	8
Stage Minimum, Percent:	2
Stage Maximum, Percent:	17
Height, Unit:	3 IN
Height Minimum, Maximum:	0.25 5
Density, Unit:	4 FT2
Pest 4 Code, Type, Scale:	XANST W
Stage Majority, Percent:	4
Stage Minimum, Percent:	4
Stage Maximum, Percent:	7
Height, Unit:	1 IN
Height Minimum, Maximum:	0.5 3
Density, Unit:	0.15 FT2
Pest 5 Code, Type, Scale:	SETFA W
Stage Majority, Percent:	3
Stage Minimum, Percent:	2
Stage Maximum, Percent:	6
Height, Unit:	1 IN
Height Minimum, Maximum:	0.5 2
Density, Unit:	10 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Nozzle Spacing, Unit:	20 IN
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Diflexx Duo Mid-Postemergence Applications in Corn Compared to Competitors.
Trial ID: 17-21S-ME40 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ZEAMD 6-9-17 Injury 0-99	ZEAMD 6-19-17 Injury 0-99	ABUTH 6-19-17 Control 0-99	ABUTH 7-6-17 Control 0-99	ABUTH 7-18-17 Control 0-99
	Pest Code													
	Crop Code													
	Rating Date									6-9-17	6-19-17	6-19-17	7-6-17	7-18-17
	Rating Type									Injury	Injury	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									4 DA-A	14 DA-A	14 DA-A	31 DA-A	43 DA-A
1	NONTREATED									0	0	0	0	0
2	DIFLEXX DUO	2.13	SC	0.533	lb ai/a	32	fl oz/a	2-4"W	A	0 a	0 a	96 a	96 a	96 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
3	DIFLEXX DUO	2.13	SC	0.53	lb ai/a	32	fl oz/a	2-4"W	A	0 a	0 a	98 a	98 a	98 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
4	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	2-4"W	A	0 a	0 a	99 a	98 a	98 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
5	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	2-4"W	A	0 a	0 a	98 a	98 a	97 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
6	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	2-4"W	A	0 a	0 a	99 a	98 a	98 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
7	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	2-4"W	A	0 a	0 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
8	ARMEZON	2.8	SL	0.0125	lb ai/a	0.5717	fl oz/a	2-4"W	A	0 a	0 a	98 a	95 a	95 a
	OUTLOOK	6	EC	0.66	lb ai/a	14	fl oz/a	2-4"W	A					
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
9	ARMEZON	2.8	SL	0.0125	lb ai/a	0.5717	fl oz/a	2-4"W	A	0 a	0 a	98 a	98 a	98 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	2-4"W	A					
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
10	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	2-4"W	A	0 a	0 a	98 a	98 a	98 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
11	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2-4"W	A	0 a	0 a	99 a	98 a	98 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code												ABUTH	ABUTH	ABUTH
Crop Code										ZEAMD	ZEAMD			
Rating Date										6-9-17	6-19-17	6-19-17	7-6-17	7-18-17
Rating Type										Injury	Injury	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing														
Trt-Eval Interval										4 DA-A	14 DA-A	14 DA-A	31 DA-A	43 DA-A
12	ROUNDUP WEATHERMAX	4.5	SL	1.55	lb ae/a	44	fl oz/a	2-4"W	A	0 a	0 a	97 a	97 a	97 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	2-4"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A					
LSD P=.05										.	.	2.4	3.3	3.3
Standard Deviation										0.0	0.0	1.4	2.0	2.0
CV										0.0	0.0	1.43	2.01	2.0
Replicate F										0.000	0.000	0.574	1.156	1.175
Replicate Prob(F)										1.0000	1.0000	0.5725	0.3350	0.3294
Treatment F										0.000	0.000	1.414	1.028	0.967
Treatment Prob(F)										1.0000	1.0000	0.2440	0.4556	0.4997

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									AMATA	AMATA	AMATA
	Crop Code											
	Rating Date									6-19-17	7-6-17	7-18-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									14 DA-A	31 DA-A	43 DA-A
1	NONTREATED									0	0	0
2	DIFLEXX DUO	2.13	SC	0.533	lb ai/a	32	fl oz/a	2-4"W	A	99 a	99 a	99 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
3	DIFLEXX DUO	2.13	SC	0.53	lb ai/a	32	fl oz/a	2-4"W	A	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
4	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	2-4"W	A	99 a	99 a	99 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
5	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	2-4"W	A	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
6	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	2-4"W	A	99 a	99 a	99 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
7	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	2-4"W	A	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
8	ARMEZON	2.8	SL	0.0125	lb ai/a	0.5717	fl oz/a	2-4"W	A	99 a	99 a	99 a
	OUTLOOK	6	EC	0.66	lb ai/a	14	fl oz/a	2-4"W	A			
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
9	ARMEZON	2.8	SL	0.0125	lb ai/a	0.5717	fl oz/a	2-4"W	A	99 a	99 a	99 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	2-4"W	A			
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
10	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	2-4"W	A	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
11	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2-4"W	A	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			

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Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Southern Illinois University

Pest Code									AMATA	AMATA	AMATA
Crop Code											
Rating Date									6-19-17	7-6-17	7-18-17
Rating Type									Control	Control	Control
Rating Unit									0-99	0-99	0-99
Rating Timing											
Trt-Eval Interval									14 DA-A	31 DA-A	43 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
12	ROUNDUP WEATHERMAX	4.5	SL	1.55	lb ae/a	44	fl oz/a	2-4"W	A	94 b	94 b	94 b
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
LSD P=.05										2.1	2.1	2.1
Standard Deviation										1.2	1.2	1.2
CV										1.24	1.24	1.24
Replicate F										1.000	1.247	1.247
Replicate Prob(F)										0.3855	0.3086	0.3086
Treatment F										5.224	5.190	5.190
Treatment Prob(F)										0.0008	0.0009	0.0009

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Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									AMBTR	AMBTR	AMBTR
	Crop Code											
	Rating Date									6-19-17	7-6-17	7-18-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									14 DA-A	31 DA-A	43 DA-A
1	NONTREATED									0	0	0
2	DIFLEXX DUO	2.13	SC	0.533	lb ai/a	32	fl oz/a	2-4"W	A	98 a	98 a	98 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
3	DIFLEXX DUO	2.13	SC	0.53	lb ai/a	32	fl oz/a	2-4"W	A	99 a	98 a	98 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
4	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	2-4"W	A	98 a	97 a	97 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
5	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	2-4"W	A	98 a	98 a	98 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
6	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	2-4"W	A	96 a	96 a	96 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
7	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	2-4"W	A	98 a	98 a	98 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
8	ARMEZON	2.8	SL	0.0125	lb ai/a	0.5717	fl oz/a	2-4"W	A	97 a	97 a	97 a
	OUTLOOK	6	EC	0.66	lb ai/a	14	fl oz/a	2-4"W	A			
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
9	ARMEZON	2.8	SL	0.0125	lb ai/a	0.5717	fl oz/a	2-4"W	A	99 a	97 a	96 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	2-4"W	A			
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
10	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	2-4"W	A	96 a	96 a	96 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
11	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2-4"W	A	96 a	96 a	96 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A			
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			

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Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Southern Illinois University

Pest Code									AMBTR	AMBTR	AMBTR
Crop Code											
Rating Date									6-19-17	7-6-17	7-18-17
Rating Type									Control	Control	Control
Rating Unit									0-99	0-99	0-99
Rating Timing											
Trt-Eval Interval									14 DA-A	31 DA-A	43 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
12	ROUNDUP WEATHERMAX	4.5	SL	1.55	lb ae/a	44	fl oz/a	2-4"W	A	97 a	98 a	98 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	2-4"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A			
LSD P=.05										2.1	2.5	2.2
Standard Deviation										1.2	1.5	1.3
CV										1.25	1.49	1.35
Replicate F										3.694	5.375	7.175
Replicate Prob(F)										0.0431	0.0136	0.0045
Treatment F										1.576	0.922	1.768
Treatment Prob(F)										0.1855	0.5332	0.1334

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code									XANST	XANST	XANST	SETFA	SETFA	SETFA
	Crop Code														
	Rating Date									6-19-17	7-6-17	7-18-17	6-19-17	7-6-17	7-18-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									14 DA-A	31 DA-A	43 DA-A	14 DA-A	31 DA-A	43 DA-A
1	NONTREATED									0	0	0	0	0	0
2	DIFLEXX DUO	2.13	SC	0.533	lb ai/a	32	fl oz/a	2-4"W	A	98 a	98 ab	98 a	97 a	96 a	95 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
3	DIFLEXX DUO	2.13	SC	0.53	lb ai/a	32	fl oz/a	2-4"W	A	99 a	99 a	99 a	77 b	71 b	70 b
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
4	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	2-4"W	A	97 a	97 b	96 a	98 a	97 a	96 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
5	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	2-4"W	A	98 a	98 ab	98 a	94 a	93 a	92 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
6	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	2-4"W	A	97 a	98 ab	98 a	99 a	99 a	97 a
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
7	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	2-4"W	A	98 a	98 ab	98 a	98 a	98 a	98 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
8	ARMEZON	2.8	SL	0.0125	lb ai/a	0.5717	fl oz/a	2-4"W	A	97 a	97 b	96 a	99 a	99 a	98 a
	OUTLOOK	6	EC	0.66	lb ai/a	14	fl oz/a	2-4"W	A						
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
9	ARMEZON	2.8	SL	0.0125	lb ai/a	0.5717	fl oz/a	2-4"W	A	96 a	97 ab	94 a	98 a	98 a	96 a
	STATUS	56	WG	0.105	lb ae/a	3	oz/a	2-4"W	A						
	ROUNDUP WEATHERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
10	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	2-4"W	A	98 a	97 ab	97 a	97 a	96 a	95 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
11	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2-4"W	A	95 a	94 c	94 a	96 a	95 a	95 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code									XANST	XANST	XANST	SETFA	SETFA	SETFA
	Crop Code														
	Rating Date									6-19-17	7-6-17	7-18-17	6-19-17	7-6-17	7-18-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									14 DA-A	31 DA-A	43 DA-A	14 DA-A	31 DA-A	43 DA-A
12	ROUNDUP WEATHERMAX	4.5	SL	1.55	lb ae/a	44	fl oz/a	2-4"W	A	99 a	99 ab	99 a	98 a	98 a	98 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	2-4"W	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	A						
	LSD P=.05									2.5	2.3	4.2	5.1	9.9	9.7
	Standard Deviation									1.5	1.4	2.4	3.0	5.8	5.7
	CV									1.53	1.4	2.52	3.13	6.15	6.08
	Replicate F									5.736	5.689	5.267	1.624	2.368	1.834
	Replicate Prob(F)									0.0107	0.0111	0.0145	0.2221	0.1194	0.1857
	Treatment F									1.899	3.368	1.816	12.972	5.818	5.916
	Treatment Prob(F)									0.1066	0.0100	0.1229	0.0001	0.0004	0.0004

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trial Comments

1. Protocol: Bayer (WMX).
2. Ratings:
   CI 7 and 14 DA-A, describe symptoms.
   WC 14, 28, and 42 DA-A.
   Record percent ground cover of each weed rated in each nontreated at each rating.
3. Yield not requested.
4. Blanket fungicides and insecticides as needed.
5. Photos not requested.
6. Application A is 2-4 inch weeds and V3-V4 corn.

Rainfall following application A was 1.1" over 2 days beginning 9 days after application.

% Ground cover at 14 DA-A, 6/19:
- 50% AMBTR, 20% ABUTH, 20% SETFA, 5% AMATA, 5% XANST.

% Ground cover at 31 DA-A, 7/6:
- 55% AMBTR, 20% ABUTH, 20% SETFA, 5% XANST.

% Ground cover at 43 DA-A, 7/18:
- 65 % AMBTR, 15% ABUTH, 15% SETFA, 5% XANST.

Southern Illinois University

Corn One- and Two-Pass Selective Herbicides Demonstration - Bayer.
Trial ID: 17-21N-M160 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-17-17
Completion Date: 7-28-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.521773 N
Longitude of LL Corner °: 89.844174 W
Angle y-axis to North °: 180.00
GPS Precision: G GPS for trial site

Objectives:
Demonstrate Bayer selective corn herbicides in one-pass and two-pass applications.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 63-33 **BBCH Scale:** BCOR
Description: SS RIB

Planting Date: 5-17-17
Planting Method: SEEDED
Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 67 F
Soil Moisture: NORMAL
Seed Bed: FINE

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 3 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 150 LB/A, P2O5 50 LB/A, K2O 150 LB/A

Soil Description

Description Name: 21N_2013
% OM: 3.1 **Texture:** SIL silt loam
pH: 6.7 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	42	lb/A
K	319	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-22-17					7	DAY	41	80	F
2.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
3.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
4.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
5.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
6.	4-29-17					7	DAY	45	77	F
7.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
8.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
9.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
10.	5-6-17					7	DAY	43	87	F
11.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
12.	5-13-17					7	DAY	51	87	F
13.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
14.	5-20-17					7	DAY	50	80	F
15.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
16.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
17.	5-27-17					7	DAY	55	87	F
18.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
19.	6-3-17					7	DAY	54	89	F
20.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
21.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
22.	6-17-17					7	DAY	62	92	F
23.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
24.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
25.	6-24-17					7	DAY	53	91	F
26.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
27.	7-1-17					7	DAY	60	93	F
28.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
29.	7-8-17					7	DAY	67	98	F
30.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
31.	7-15-17					7	DAY	60	91	F
32.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
33.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
34.	7-22-17					7	DAY	69	99	F
35.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
36.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
37.	7-29-17					7	DAY	61	83	F

Application Description

	A	B	C
Application Date:	5-18-17	5-27-17	6-8-17
Appl. Start Time:	8:00	15:35	14:25
Appl. Stop Time:	8:20	15:40	14:50
Interval to Prev. Appl., Unit:		9 DAYS	12 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	EPOST	MPOST
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	MCG	MCG	RLS
Air Temperature, Unit:	77 F	77 F	80 F
% Relative Humidity:	75	73	35
Wind Velocity, Unit:	7 MPH	0 MPH	5 MPH
Wind Direction:	SSW		NW
Dew Presence (Y/N):			N
Soil Temperature, Unit:	69 F	69 F	71 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	90	25	0
Next Moisture Occurred On:	5-19-17	5-27-17	6-14-17
Time to Next Moisture, Unit:	24 HR	2 HR	6 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMD	ZEAMD	ZEAMD
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	V2	V4
Stage Minimum, Percent:		V2	V4
Stage Maximum, Percent:		V2	V4
Height, Unit:		2.5 IN	9.5 IN
Height Minimum, Maximum:		2 3	8.5 9.5

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:	N/A	COT	COT
Stage Minimum, Percent:		COT	COT
Stage Maximum, Percent:		1	4
Height, Unit:		0.5 IN	0.4 IN
Height Minimum, Maximum:		0.2 1	0.4 1
Density, Unit:		3 FT2	1 FT2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	N/A	2	6
Stage Minimum, Percent:		COT	COT
Stage Maximum, Percent:		2	8
Height, Unit:		0.7 IN	2 IN
Height Minimum, Maximum:		0.5 1	0.3 3
Density, Unit:		0.5 FT2	1 FT2
Pest 3 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:	N/A	2	1
Stage Minimum, Percent:		1	1
Stage Maximum, Percent:		2	2
Height, Unit:		0.3 IN	0.5 IN
Height Minimum, Maximum:		0.1 1.5	0.1 1
Density, Unit:		1 FT2	0.2 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

Corn One- and Two-Pass Selective Herbicides Demonstration - Bayer.
Trial ID: 17-21N-M160 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval									ZEAMD 5-25-17 Injury 0-99 7 DA-A	ZEAMD 6-1-17 Injury 0-99 14 DA-A	ZEAMD 6-5-17 Injury 0-99 9 DA-B	ZEAMD 6-14-17 Injury 0-99 6 DA-C 18 DA-B	ZEAMD 6-19-17 Injury 0-99 11 DA-C 23 DA-B	ZEAMD 6-26-17 Injury 0-99 18 DA-C 30 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	NONTREATED									0	0	0	0	0	0
2	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	0 a	0 a	1 a	28 b	13 ab	2 b
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A						
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C						
3	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	0 a	0 a	1 a	0 c	0 c	0 b
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A						
	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	MPOST	C						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C						
4	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	0 a	0 a	0 a	0 c	0 c	0 b
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A						
	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	MPOST	C						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	MPOST	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C						
5	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	0 a	0 a	1 a	0 c	0 c	0 b
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A						
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	MPOST	C						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C						
6	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	0 a	0 a	2 a	35 a	13 ab	5 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A						
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C						
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	MPOST	C						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C						
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	MPOST	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C						
7	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	0 a	0 a	0 a	0 c	0 c	0 b
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A						
8	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	0 a	0 a	0 a	0 c	0 c	0 b
	DEGREE XTRA	4.04	CS	2.02	lb ai/a	2	qt/a	PRE	A						
	AATREX 4L	4	SC	0.344	lb ai/a	11	fl oz/a	PRE	A						
9	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	0 a	0 a	0 a	33 a	8 b	0 b
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A						
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C						
10	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	0 a	0 a	1 a	0 c	0 c	0 b
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A						
	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	MPOST	C						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code														
	Crop Code									ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD
	Rating Date									5-25-17	6-1-17	6-5-17	6-14-17	6-19-17	6-26-17
	Rating Type									Injury	Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									7 DA-A	14 DA-A	9 DA-B	6 DA-C	11 DA-C	18 DA-C
	Trt-Eval Interval												18 DA-B	23 DA-B	30 DA-B
11	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	0 a	0 a	2 a	0 c	0 c	0 b
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A						
	DIFLEXX DUO	2.13	SC	0.53	lb ai/a	32	fl oz/a	MPOST	C						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C						
12	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	0 a	0 a	1 a	37 a	17 a	2 b
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A						
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C						
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	MPOST	C						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C						
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	MPOST	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C						
13	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	EPOST	B	0 a	0 a	0 a	0 c	0 c	0 b
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	EPOST	B						
	ROUNDUP POWERMAX	4.5	SL	0.42	lb ae/a	12	fl oz/a	EPOST	B						
14	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	EPOST	B	0 a	0 a	0 a	0 c	0 c	0 b
	DEGREE XTRA	4.04	CS	2.02	lb ai/a	2	qt/a	EPOST	B						
	AATREX 4L	4	SC	0.344	lb ai/a	11	fl oz/a	EPOST	B						
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	B						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPOST	B						
15	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	0 a	0 a	1 a	0 c	0 c	0 b
16	RESICORE	3.29	EC	2.06	lb ai/a	2.5	qt/a	PRE	A	0 a	0 a	1 a	0 c	0 c	0 b
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A						
	LSD P=.05									.	.	1.7	4.6	6.0	2.6
	Standard Deviation									0.0	0.0	1.0	2.8	3.6	1.6
	CV									0.0	0.0	160.5	31.21	103.94	282.34
	Replicate F									0.000	0.000	1.890	2.237	0.303	2.935
	Replicate Prob(F)									1.0000	1.0000	0.1698	0.1255	0.7407	0.0696
	Treatment F									0.000	0.000	1.356	91.804	8.774	2.258
	Treatment Prob(F)									1.0000	1.0000	0.2384	0.0001	0.0001	0.0324

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
	Crop Code													
	Rating Date									6-5-17	6-14-17	6-19-17	7-11-17	7-24-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									-3 DA-C	6 DA-C	11 DA-C	33 DA-C	46 DA-C
	Trt-Eval Interval									9 DA-B	18 DA-B	23 DA-B	45 DA-B	58 DA-B
1	NONTREATED									0	0	0	0	0
2	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	96 cd	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
3	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	94 d	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
4	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	98 abc	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
5	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	98 abc	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
6	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	98 abc	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
7	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	98 abc	97 ab	97 a	98 ab	98 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
8	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	98 abc	97 ab	97 a	96 b	94 a
	DEGREE XTRA	4.04	CS	2.02	lb ai/a	2	qt/a	PRE	A					
	AATREX 4L	4	SC	0.344	lb ai/a	11	fl oz/a	PRE	A					
9	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	97 a-d	99 a	99 a	99 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
10	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	98 abc	99 a	99 a	99 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
	Crop Code													
	Rating Date									6-5-17	6-14-17	6-19-17	7-11-17	7-24-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									-3 DA-C	6 DA-C	11 DA-C	33 DA-C	46 DA-C
	Trt-Eval Interval									9 DA-B	18 DA-B	23 DA-B	45 DA-B	58 DA-B
11	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	96 bcd	99 a	99 a	99 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	DIFLEXX DUO	2.13	SC	0.53	lb ai/a	32	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
12	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	98 abc	99 a	99 a	99 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
13	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	EPOST	B	97 abc	96 b	97 a	96 b	97 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	EPOST	B					
	ROUNDUP POWERMAX	4.5	SL	0.42	lb ae/a	12	fl oz/a	EPOST	B					
14	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	EPOST	B	98 abc	93 c	93 b	96 b	98 a
	DEGREE XTRA	4.04	CS	2.02	lb ai/a	2	qt/a	EPOST	B					
	AATREX 4L	4	SC	0.344	lb ai/a	11	fl oz/a	EPOST	B					
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	B					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPOST	B					
15	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	99 ab	98 ab	98 a	99 a	99 a
16	RESICORE	3.29	EC	2.06	lb ai/a	2.5	qt/a	PRE	A	99 a	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	LSD P=.05									2.4	2.3	2.4	1.9	3.5
	Standard Deviation									1.4	1.4	1.4	1.1	2.1
	CV									1.44	1.4	1.48	1.14	2.15
	Replicate F									0.146	0.036	0.127	0.124	0.729
	Replicate Prob(F)									0.8649	0.9651	0.8813	0.8835	0.4913
	Treatment F									2.282	4.117	3.655	3.102	1.243
	Treatment Prob(F)									0.0307	0.0007	0.0017	0.0052	0.3009

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code										AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
Crop Code														
Rating Date										6-5-17	6-14-17	6-19-17	7-11-17	7-24-17
Rating Type										Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing										-3 DA-C	6 DA-C	11 DA-C	33 DA-C	46 DA-C
Trt-Eval Interval										9 DA-B	18 DA-B	23 DA-B	45 DA-B	58 DA-B
1	NONTREATED									0	0	0	0	0
2	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	91 b-e	98 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
3	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	88 de	99 a	98 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
4	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	90 cde	98 a	98 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
5	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	95 abc	98 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
6	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	96 abc	98 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
7	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	98 a	96 ab	97 a	98 a	98 ab
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
8	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	94 a-d	89 c	91 b	91 b	96 bc
	DEGREE XTRA	4.04	CS	2.02	lb ai/a	2	qt/a	PRE	A					
	AATREX 4L	4	SC	0.344	lb ai/a	11	fl oz/a	PRE	A					
9	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	88 de	99 a	99 a	99 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
10	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	97 a	99 a	99 a	99 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code													
	Rating Date									6-5-17	6-14-17	6-19-17	7-11-17	7-24-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									-3 DA-C	6 DA-C	11 DA-C	33 DA-C	46 DA-C
	Trt-Eval Interval									9 DA-B	18 DA-B	23 DA-B	45 DA-B	58 DA-B
11	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	86 e	98 a	99 a	99 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	DIFLEXX DUO	2.13	SC	0.53	lb ai/a	32	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
12	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	93 a-d	99 a	99 a	98 a	98 ab
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
13	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	EPOST	B	97 a	95 ab	95 a	96 a	96 abc
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	EPOST	B					
	ROUNDUP POWERMAX	4.5	SL	0.42	lb ae/a	12	fl oz/a	EPOST	B					
14	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	EPOST	B	97 ab	93 bc	91 b	92 b	93 c
	DEGREE XTRA	4.04	CS	2.02	lb ai/a	2	qt/a	EPOST	B					
	AATREX 4L	4	SC	0.344	lb ai/a	11	fl oz/a	EPOST	B					
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	B					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPOST	B					
15	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	97 a	95 ab	96 a	98 a	98 ab
16	RESICORE	3.29	EC	2.06	lb ai/a	2.5	qt/a	PRE	A	98 a	97 ab	96 a	98 a	99 ab
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	LSD P=.05									6.3	4.8	4.2	3.8	3.2
	Standard Deviation									3.8	2.9	2.5	2.3	1.9
	CV									4.05	2.97	2.59	2.34	1.96
	Replicate F									1.031	0.024	0.618	0.412	0.343
	Replicate Prob(F)									0.3697	0.9760	0.5463	0.6660	0.7127
	Treatment F									3.700	2.878	3.529	3.752	2.242
	Treatment Prob(F)									0.0016	0.0084	0.0022	0.0014	0.0335

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									SETFA	SETFA	SETFA	SETFA	SETFA
	Crop Code													
	Rating Date									6-5-17	6-14-17	6-19-17	7-11-17	7-24-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									-3 DA-C	6 DA-C	11 DA-C	33 DA-C	46 DA-C
	Trt-Eval Interval									9 DA-B	18 DA-B	23 DA-B	45 DA-B	58 DA-B
1	NONTREATED									0	0	0	0	0
2	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	96 a	98 ab	97 ab	98 a	98 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
3	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	94 a	95 ab	93 bc	92 bc	96 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
4	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	98 a	99 a	98 ab	96 ab	97 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
5	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	98 a	88 c	90 c	91 c	95 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	DIFLEXX	4	SC	0.25	lb ae/a	8	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
6	CORVUS	2.63	SC	0.082	lb ai/a	4	fl oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
7	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	99 a	98 ab	98 ab	97 a	97 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
8	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	99 a	99 ab	97 ab	99 a	99 a
	DEGREE XTRA	4.04	CS	2.02	lb ai/a	2	qt/a	PRE	A					
	AATREX 4L	4	SC	0.344	lb ai/a	11	fl oz/a	PRE	A					
9	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	99 a	99 ab	98 a	98 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
10	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	DIFLEXX DUO	2.13	SC	0.4	lb ai/a	24	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									SETFA	SETFA	SETFA	SETFA	SETFA
	Crop Code													
	Rating Date									6-5-17	6-14-17	6-19-17	7-11-17	7-24-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									-3 DA-C	6 DA-C	11 DA-C	33 DA-C	46 DA-C
	Trt-Eval Interval									9 DA-B	18 DA-B	23 DA-B	45 DA-B	58 DA-B
11	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	98 a	99 a	97 ab	96 ab	97 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	DIFLEXX DUO	2.13	SC	0.53	lb ai/a	32	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
12	BALANCE FLEXX	2	SC	0.0625	lb ai/a	4	fl oz/a	PRE	A	99 a	99 a	99 a	98 a	99 a
	DEGREE XTRA	4.04	CS	1.52	lb ai/a	1.5	qt/a	PRE	A					
	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	MPOST	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	MPOST	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	MPOST	C					
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	MPOST	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	MPOST	C					
13	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	EPOST	B	99 a	99 a	98 ab	96 ab	96 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	EPOST	B					
	ROUNDUP POWERMAX	4.5	SL	0.42	lb ae/a	12	fl oz/a	EPOST	B					
14	CAPRENO	3.45	SC	0.081	lb ai/a	3	fl oz/a	EPOST	B	99 a	99 a	98 ab	98 a	99 a
	DEGREE XTRA	4.04	CS	2.02	lb ai/a	2	qt/a	EPOST	B					
	AATREX 4L	4	SC	0.344	lb ai/a	11	fl oz/a	EPOST	B					
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	B					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPOST	B					
15	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	98 a	94 b	95 abc	96 ab	98 a
16	RESICORE	3.29	EC	2.06	lb ai/a	2.5	qt/a	PRE	A	99 a	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	LSD P=.05									4.1	4.4	4.7	4.9	2.6
	Standard Deviation									2.4	2.6	2.8	2.9	1.6
	CV									2.48	2.7	2.9	3.01	1.59
	Replicate F									2.089	0.425	1.021	0.521	0.559
	Replicate Prob(F)									0.1427	0.6580	0.3732	0.5998	0.5783
	Treatment F									1.168	3.806	2.371	2.083	2.050
	Treatment Prob(F)									0.3497	0.0013	0.0252	0.0479	0.0516

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Southern Illinois University

Corn One- and Two-Pass Selective Herbicides Demonstration - Bayer.
Trial ID: 17-21N-M160 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Bayer (WMU).
2. Ratings:
   CI 7-10 and 14-17 DA each application, rate all plots after C.
   Get 2 CI ratings before application C.
   WC 11-18 DA crop emergence and before B.
   7-10 DA-B and before C, rate all plots for effectiveness of the PRE.
   7-10, 20-28, and 40-45 DA-C, rate all plots.
3. Yield not requested.
4. Photos if something new happens, or any CI.
5. EPOST target 1-2 inch weeds but within V1-V2.
   MPOST target 3-4 inch weeds but within V4-V5.
6. Rate before spray applications B and C.

Rainfall following application A was 1.46" over 2 days beginning 24 hours after application.
Rainfall following application B was 0.3" over 1 day beginning 2 hours after application.
Rainfall following application C was 1.1" over 2 days beginning 6 days after application.

Minor necrosis on the tip of the first leaf was noted in plot 111 at 9 DA-B.

Plot 112 was positioned in a low area of the field. As a result, stunting was noted in this plot at 11 DA-C rating.

CI symptoms at 18 DA-B and 18 DA-C were stunting.

Pictures available of 1st rep plots (overall) and crop injury from 6/14.

Corn Weed Control Programs Showcase.
Trial ID: 17-21N-E130 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-17-17
Completion Date: 10-24-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.521998 N
Longitude of LL Corner °: 89.844161 W
Altitude of LL Corner, Unit: 435.00 FT
Angle y-axis to North °: 180.00

Objectives:
Showcase preemergenece plus postemergence herbicide programs from Dow, Syngenta and others.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 63-33 **BBCH Scale:** BCOR
Planting Date: 5-17-17
Planting Method: SEEDED
Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 68 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 3 Type: W **Code:** IPOSS
Common Name: morningglory, species

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A
2.	FERT	N 150 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: 21N_2013
% OM: 3.1 **Texture:** SIL silt loam
pH: 6.7 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	42	lb/A
K	319	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	39	70	F
2.	4-2-17	1.85	IN	RAIN	rain	5	DAY			
3.	4-8-17					7	DAY	39	81	F
4.	4-10-17	0.12	IN	RAIN	rain	1	DAY			
5.	4-14-17	0.21	IN	RAIN	rain	1	DAY			
6.	4-15-17					7	DAY	49	86	F
7.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
8.	4-22-17					7	DAY	41	80	F
9.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
10.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
11.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
12.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
13.	4-29-17					7	DAY	45	77	F
14.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
15.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
16.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
17.	5-6-17					7	DAY	43	87	F
18.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
19.	5-13-17					7	DAY	51	87	F
20.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
21.	5-20-17					7	DAY	50	80	F
22.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
23.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
24.	5-27-17					7	DAY	55	87	F
25.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
26.	6-3-17					7	DAY	54	89	F
27.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
28.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
29.	6-17-17					7	DAY	62	92	F
30.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
31.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
32.	6-24-17					7	DAY	53	91	F
33.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
34.	7-1-17					7	DAY	60	93	F
35.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
36.	7-8-17					7	DAY	67	98	F
37.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
38.	7-15-17					7	DAY	60	91	F
39.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
40.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
41.	7-22-17					7	DAY	69	99	F
42.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
43.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
44.	7-29-17					7	DAY	61	83	F
45.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
46.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
47.	8-5-17					7	DAY	55	87	F
48.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
49.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
50.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
51.	8-12-17					7	DAY	56	84	F
52.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
53.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
54.	8-19-17					7	DAY	56	94	F
55.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
56.	8-26-17					7	DAY	56	86	F
57.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
58.	9-2-17					7	DAY	47	95	F

59.	9-4-17	0.79	IN	RAIN	rain	1	DAY			
60.	9-9-17					7	DAY	57	83	F
61.	9-12-17	0.12	IN	RAIN	rain	2	DAY			
62.	9-16-17					7	DAY	61	95	F
63.	9-18-17	0.06	IN	RAIN	rain	1	DAY			
64.	9-23-17					7	DAY	49	93	F
65.	9-30-17					7	DAY	48	84	F
66.	10-3-17	0.38	IN	RAIN	rain	1	DAY			
67.	10-5-17	0.05	IN	RAIN	rain	1	DAY			
68.	10-7-17	0.13	IN	RAIN	rain	1	DAY			
69.	10-7-17					7	DAY	50	85	F
70.	10-9-17	0.3	IN	RAIN	rain	1	DAY			
71.	10-10-17	0.28	IN	RAIN	rain	1	DAY			
72.	10-14-17					7	DAY	40	88	F
73.	10-15-17	0.66	IN	RAIN	rain	1	DAY			
74.	10-21-17					7	DAY	36	79	F
75.	10-22-17	0.65	IN	RAIN	rain	2	DAY			
76.	10-28-17					7	DAY	25	76	F

Application Description

	A	B	C	D
Application Date:	5-18-17	5-26-17	6-6-17	6-9-17
Appl. Start Time:	20:00	17:20	7:10	11:45
Appl. Stop Time:	20:20	17:25	7:20	12:10
Interval to Prev. Appl., Unit:		8 DAYS	11 DAYS	3 DAYS
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	V1	2-4"W	4-6"W
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	RLS	RLS	MCG	CC
Air Temperature, Unit:	76 F	76 F	66 F	81 F
% Relative Humidity:	81	72	56	36
Wind Velocity, Unit:	7 MPH	9 MPH	10 MPH	8 MPH
Wind Direction:	SSE	SW	NNE	SSW
Dew Presence (Y/N):	N	N	N	N
Soil Temperature, Unit:	70 F	67 F	73 F	70 F
Soil Moisture:	NORMAL	NORMAL	ABONOR	NORMAL
% Cloud Cover:	0	45	0	25
Next Moisture Occurred On:	5-19-17	5-27-17	6-14-17	6-14-17
Time to Next Moisture, Unit:	9 HR	24 HR	8 DAY	5 DAY

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	ZEAMD	ZEAMD	ZEAMD	ZEAMD
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	V1	V4	V5
Stage Minimum, Percent:		V1	V4	V5
Stage Maximum, Percent:		V1	V4	V5
Height, Unit:		2 IN	8 IN	9 IN
Height Minimum, Maximum:		2 2	5 8	5 9

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:	NA	2	6	5
Stage Minimum, Percent:		2	2	4
Stage Maximum, Percent:		2	6	6
Height, Unit:		0.25 IN	2 IN	3 IN
Height Minimum, Maximum:		0.25 0.5	0.5 3	2 4
Density, Unit:		10 FT2	2 FT2	2 FT2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	NA	2	6	8
Stage Minimum, Percent:		2	2	6
Stage Maximum, Percent:		4	8	10
Height, Unit:		0.5 IN	2.5 IN	4 IN
Height Minimum, Maximum:		0.25 1	0.5 3	1.5 7.5
Density, Unit:		0.1 FT2	0.5 FT2	0.8 FT2
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W	IPOSS W
Stage Majority, Percent:	NA	NA	NA	NA

Application Equipment

	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR	XR
Nozzle Size:	8002	8002	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA

Southern Illinois University

Corn Weed Control Programs Showcase.
Trial ID: 17-21N-E130 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval										ZEAMD 5-25-17 Injury 0-99 7 DA-A	ZEAMD 6-1-17 Injury 0-99 14 DA-A 6 DA-B	ZEAMD 6-14-17 Injury 0-99 8 DA-C 27 DA-A	ZEAMD 6-19-17 Injury 0-99 13 DA-C 10 DA-D	ZEAMD 6-26-17 Injury 0-99 17 DA-D
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	KEYSTONE NXT	5.6	SE	3.5	lb ai/a	2.5	qt/a	PRE	A	0 a	0 b	0 b	0 a	0 a
	HORNET WDG	68.5	WG	0.171	lb ai/a	4	oz/a	PRE	A					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
2	SURESTART II	4.16	SE	1.3	lb ai/a	2.5	pt/a	PRE	A	0 a	0 b	0 b	0 a	0 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
3	RESICORE	3.29	EC	2.26	lb ai/a	2.75	qt/a	PRE	A	0 a	0 b	0 b	0 a	0 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
4	RESICORE	3.29	EC	1.23	lb ai/a	1.5	qt/a	PRE	A	0 a	0 b	0 b	0 a	0 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	4-6"W	D					
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	4-6"W	D					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
5	SURESTART II	4.16	SE	1.04	lb ai/a	2	pt/a	PRE	A	0 a	0 b	0 b	0 a	0 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	4-6"W	D					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
6	NONTREATED									0	0	0	0	0
7	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	0 a	0 b	0 b	0 a	0 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
8	ACURON FLEXI	3.26	ES	1.63	lb ai/a	2	qt/a	PRE	A	0 a	0 b	0 b	0 a	0 a
	PRINCEP 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
9	ACURON	3.44	CS	1.08	lb ai/a	1.25	qt/a	PRE	A	0 a	0 b	6 a	0 a	0 a
	AATREX 4L	4	SC	0.5	lb ai/a	0.5	qt/a	PRE	A					
	ACURON	3.44	CS	1.08	lb ai/a	1.25	qt/a	2-4"W	C					
	AATREX 4L	4	SC	0.5	lb ai/a	0.5	qt/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	2-4"W	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C					
10	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	0 a	0 b	0 b	0 a	0 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W	C					
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C					
11	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	0 a	0 b	0 b	0 a	0 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W	C					
	LIBERTY 280	2.34	EC	0.402	lb ai/a	22.0	fl oz/a	2-4"W	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,9,11 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code														
Crop Code										ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD
Rating Date										5-25-17	6-1-17	6-14-17	6-19-17	6-26-17
Rating Type										Injury	Injury	Injury	Injury	Injury
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing										7 DA-A	14 DA-A	8 DA-C	13 DA-C	17 DA-D
Trt-Eval Interval											6 DA-B	27 DA-A	10 DA-D	
12	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	V1	B		6 a	0 b	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1	B					
LSD P=.05										.	0.6	1.2	.	.
Standard Deviation										0.0	0.3	0.7	0.0	0.0
CV										0.0	67.58	135.17	0.0	0.0
Replicate F										0.000	1.000	1.000	0.000	0.000
Replicate Prob(F)										1.0000	0.3855	0.3855	1.0000	1.0000
Treatment F										0.000	72.250	18.063	0.000	0.000
Treatment Prob(F)										1.0000	0.0001	0.0001	1.0000	1.0000

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code													
	Rating Date									6-14-17	6-19-17	7-6-17	7-18-17	8-7-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									8 DA-C	13 DA-C	30 DA-C	42 DA-C	62 DA-C
	Trt-Eval Interval									19 DA-B	10 DA-D	27 DA-D	39 DA-D	59 DA-D
1	KEYSTONE NXT	5.6	SE	3.5	lb ai/a	2.5	qt/a	PRE	A	98 a	98 a	98 a	98 a	98 a
	HORNET WDG	68.5	WG	0.171	lb ai/a	4	oz/a	PRE	A					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
2	SURESTART II	4.16	SE	1.3	lb ai/a	2.5	pt/a	PRE	A	99 a	98 a	97 a	96 a	96 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
3	RESICORE	3.29	EC	2.26	lb ai/a	2.75	qt/a	PRE	A	98 a	98 a	98 a	97 a	98 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
4	RESICORE	3.29	EC	1.23	lb ai/a	1.5	qt/a	PRE	A	98 a	98 a	99 a	99 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	4-6"W	D					
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	4-6"W	D					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
5	SURESTART II	4.16	SE	1.04	lb ai/a	2	pt/a	PRE	A	98 a	98 a	99 a	99 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	4-6"W	D					
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D					
6	NONTREATED									0	0	0	0	0
7	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	95 a	93 b	95 a	95 a	95 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
8	ACURON FLEXI	3.26	ES	1.63	lb ai/a	2	qt/a	PRE	A	97 a	97 ab	96 a	96 a	97 a
	PRINCEP 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A					
9	ACURON	3.44	CS	1.08	lb ai/a	1.25	qt/a	PRE	A	96 a	97 ab	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	0.5	qt/a	PRE	A					
	ACURON	3.44	CS	1.08	lb ai/a	1.25	qt/a	2-4"W	C					
	AATREX 4L	4	SC	0.5	lb ai/a	0.5	qt/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	2-4"W	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C					
10	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	96 a	96 ab	92 a	92 a	90 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W	C					
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C					
11	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	97 a	97 ab	96 a	94 a	96 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W	C					
	LIBERTY 280	2.34	EC	0.402	lb ai/a	22.0	fl oz/a	2-4"W	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C					

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Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code													
	Rating Date									6-14-17	6-19-17	7-6-17	7-18-17	8-7-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									8 DA-C	13 DA-C	30 DA-C	42 DA-C	62 DA-C
	Trt-Eval Interval									19 DA-B	10 DA-D	27 DA-D	39 DA-D	59 DA-D
12	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	V1	B	83 b	82 c	68 b	67 b	68 b
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1	B					
	LSD P=.05									4.4	3.9	9.8	9.8	11.5
	Standard Deviation									2.6	2.3	5.7	5.8	6.7
	CV									2.68	2.38	6.08	6.15	7.16
	Replicate F									1.162	1.324	1.676	2.011	1.686
	Replicate Prob(F)									0.3330	0.2885	0.2123	0.1600	0.2105
	Treatment F									8.375	13.424	7.116	7.688	5.246
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001	0.0008

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Could not calculate LSD (% mean diff) for columns 5,9,11 because error mean square = 0.

Pest Code									ABUTH	ABUTH	ABUTH	IPOHE	IPOHE	IPOHE
Crop Code														
Rating Date									7-6-17	7-18-17	8-7-17	7-6-17	7-18-17	8-7-17
Rating Type									Control	Control	Control	Control	Control	Control
Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing									30 DA-C	42 DA-C	62 DA-C	30 DA-C	42 DA-C	62 DA-C
Trt-Eval Interval									27 DA-D	39 DA-D	59 DA-D	27 DA-D	39 DA-D	59 DA-D
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	KEYSTONE NXT	5.6	SE	3.5	lb ai/a	2.5	qt/a	PRE	A	99 a	98 a	99 a	97 a	97 a	98 a
	HORNET WDG	68.5	WG	0.171	lb ai/a	4	oz/a	PRE	A						
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D						
2	SURESTART II	4.16	SE	1.3	lb ai/a	2.5	pt/a	PRE	A	98 a	98 a	99 a	96 a	96 a	97 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A						
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D						
3	RESICORE	3.29	EC	2.26	lb ai/a	2.75	qt/a	PRE	A	99 a	98 a	99 a	99 a	98 a	98 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A						
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D						
4	RESICORE	3.29	EC	1.23	lb ai/a	1.5	qt/a	PRE	A	99 a	99 a	99 a	99 a	98 a	98 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A						
	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	4-6"W	D						
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	4-6"W	D						
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D						
5	SURESTART II	4.16	SE	1.04	lb ai/a	2	pt/a	PRE	A	99 a	99 a	99 a	99 a	98 a	98 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A						
	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	4-6"W	D						
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D						
6	NONTREATED									0	0	0	0	0	0
7	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	99 a	98 a	99 a	93 a	93 a	96 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A						
8	ACURON FLEXI	3.26	ES	1.63	lb ai/a	2	qt/a	PRE	A	99 a	99 a	99 a	95 a	96 a	98 a
	PRINCEP 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A						
9	ACURON	3.44	CS	1.08	lb ai/a	1.25	qt/a	PRE	A	99 a	99 a	99 a	99 a	99 a	98 a
	AATREX 4L	4	SC	0.5	lb ai/a	0.5	qt/a	PRE	A						
	ACURON	3.44	CS	1.08	lb ai/a	1.25	qt/a	2-4"W	C						
	AATREX 4L	4	SC	0.5	lb ai/a	0.5	qt/a	2-4"W	C						
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	2-4"W	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C						
10	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	89 a	86 b	83 b	96 a	96 a	98 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W	C						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W	C						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C						
11	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	94 a	91 ab	90 ab	96 a	96 a	97 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W	C						
	LIBERTY 280	2.34	EC	0.402	lb ai/a	22.0	fl oz/a	2-4"W	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C						

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,9,11 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
Pest Code										ABUTH	ABUTH	ABUTH	IPOHE	IPOHE	IPOHE
Crop Code															
Rating Date										7-6-17	7-18-17	8-7-17	7-6-17	7-18-17	8-7-17
Rating Type										Control	Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing										30 DA-C	42 DA-C	62 DA-C	30 DA-C	42 DA-C	62 DA-C
Trt-Eval Interval										27 DA-D	39 DA-D	59 DA-D	27 DA-D	39 DA-D	59 DA-D
12	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	V1	B	62 b	62 c	62 c	65 b	64 b	66 b
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1	B						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1	B						
LSD P=.05										10.8	11.2	11.8	13.7	13.0	14.8
Standard Deviation										6.3	6.5	6.9	8.0	7.6	8.7
CV										6.73	7.01	7.44	8.56	8.11	9.14
Replicate F										0.736	0.662	0.379	1.161	1.040	0.843
Replicate Prob(F)										0.4918	0.5265	0.6892	0.3335	0.3717	0.4452
Treatment F										9.437	8.978	8.497	4.435	5.201	3.578
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0022	0.0009	0.0073

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Could not calculate LSD (% mean diff) for columns 5,9,11 because error mean square = 0.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval										ZEAMD 10-24-17 Yield bu/A Harvest 159 DA-A	ZEAMD 10-24-17 Moisture Percent Harvest 159 DA-A	ZEAMD 10-24-17 Test wt. lb/bu Harvest 159 DA-A	ZEAMD 10-24-17 Weight lb/plot Harvest 159 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	KEYSTONE NXT	5.6	SE	3.5	lb ai/a	2.5	qt/a	PRE	A	219.1 ab	16.5 a	59.4 b	38.50 ab
	HORNET WDG	68.5	WG	0.171	lb ai/a	4	oz/a	PRE	A				
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D				
2	SURESTART II	4.16	SE	1.3	lb ai/a	2.5	pt/a	PRE	A	222.6 ab	16.3 a	59.6 b	38.97 ab
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A				
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D				
3	RESICORE	3.29	EC	2.26	lb ai/a	2.75	qt/a	PRE	A	226.0 a	16.3 a	59.6 b	39.58 a
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A				
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D				
4	RESICORE	3.29	EC	1.23	lb ai/a	1.5	qt/a	PRE	A	214.0 ab	16.3 a	59.6 b	37.52 ab
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A				
	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	4-6"W	D				
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	4-6"W	D				
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D				
5	SURESTART II	4.16	SE	1.04	lb ai/a	2	pt/a	PRE	A	216.3 ab	16.4 a	59.5 b	37.94 ab
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A				
	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	4-6"W	D				
	DURANGO DMA	4	SL	1	lb ae/a	1	qt/a	4-6"W	D				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W	D				
6	NONTREATED									57.3 c	13.8 b	60.7 a	9.87 c
7	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	200.2 ab	16.4 a	59.5 b	35.13 ab
	AATREX 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A				
8	ACURON FLEXI	3.26	ES	1.63	lb ai/a	2	qt/a	PRE	A	215.8 ab	16.1 a	59.7 b	37.73 ab
	PRINCEP 4L	4	SC	1	lb ai/a	1	qt/a	PRE	A				
9	ACURON	3.44	CS	1.08	lb ai/a	1.25	qt/a	PRE	A	216.1 ab	16.3 a	59.5 b	37.84 ab
	AATREX 4L	4	SC	0.5	lb ai/a	0.5	qt/a	PRE	A				
	ACURON	3.44	CS	1.08	lb ai/a	1.25	qt/a	2-4"W	C				
	AATREX 4L	4	SC	0.5	lb ai/a	0.5	qt/a	2-4"W	C				
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	2-4"W	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C				
10	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	208.4 ab	16.2 a	59.6 b	36.47 ab
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W	C				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W	C				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C				
11	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	211.2 ab	16.4 a	59.5 b	37.04 ab
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W	C				
	LIBERTY 280	2.34	EC	0.402	lb ai/a	22.0	fl oz/a	2-4"W	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	C				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,9,11 because error mean square = 0.

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
Pest Code													
Crop Code										ZEAMD	ZEAMD	ZEAMD	ZEAMD
Rating Date										10-24-17	10-24-17	10-24-17	10-24-17
Rating Type										Yield	Moisture	Test wt.	Weight
Rating Unit										bu/A	Percent	lb/bu	lb/plot
Rating Timing										Harvest	Harvest	Harvest	Harvest
Trt-Eval Interval										159 DA-A	159 DA-A	159 DA-A	159 DA-A
12	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	V1	B	185.2 b	16.2 a	59.7 b	32.39 b
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V1	B				
LSD P=.05										38.98	1.26	0.59	6.774
Standard Deviation										23.02	0.75	0.35	4.001
CV										11.55	4.64	0.58	11.46
Replicate F										0.125	0.659	0.771	0.164
Replicate Prob(F)										0.8835	0.5271	0.4746	0.8494
Treatment F										11.994	2.937	2.693	12.340
Treatment Prob(F)										0.0001	0.0151	0.0231	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,9,11 because error mean square = 0.

Corn Weed Control Programs Showcase.
Trial ID: 17-21N-E130 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Dow (corn showcase), Syngenta (EHLCor04-2017) and others.
2. Ratings:
   CI 7-14 DA-A but before C+D; 7 and 14 DA-C+D in separate columns on different days,
   rate PRE only and B with C.
   WC 0, 7, 14, 28, 42, and 56 DA-C, rate PRE only and B+D with C even if applied on different days,
   even if D not applied yet. (i.e. rate all plots each time)
3. Yield.
4. Application B at V1 corn even if no weeds.
   Application C V3-V4 or 2-4 inch weeds, which ever comes first.
   Application D 4-6"W and prior to 11 inch corn.
5. Photos requested, maybe all plots 14-28 DA-C.

Rainfall following application A was 1.46" over 2 days begining 9 hours after application.
Rainfall following application B was 0.30" over 1 day begining 24 hours after application.
Rainfall following application C was 1.10" over 2 days begining 5 days after application.
Rainfall following application D was 1.10" over 2 days begining 8 days after application.

IPOHE rating primarily reflects control of ivyleaf morningglory, but pitted morngingIgory was present in this trial as well; control was the same for both species.

Photos available of 1 rep from 6/19 (10 DA-D) and 7/6 (27 DA-D).

Harvested area = 27' x 5'

Southern Illinois University

Anthem / Solstice Full Sales.
Trial ID: 17-21S-MW50 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-17-17
Completion Date: 10-24-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.520905 N
Longitude of LL Corner °: 89.84434 W

Objectives:
Evaluate Anthem Maxx / Solstice concepts applied preemergence and postemergence for control of grasses and broadleaf weeds.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 63-33 **BBCH Scale:** BCOR
Description: SS RIB

Planting Date: 5-17-17
Planting Method: SEEDED
Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 68 F
Soil Moisture: NORMAL
Seed Bed: FINE

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 3 Type: W **Code:** IPOSS
Common Name: morningglory, species

Pest 4 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 150 LB/A, P2O5 50 LB/A, K2O 150 LB/A

Soil Description

Description Name: 21S_2013
% OM: 3 **Texture:** SIL silt loam
pH: 6.5 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	40	lb/A
K	318	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-22-17					7	DAY	41	80	F
2.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
3.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
4.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
5.	4-29-17					7	DAY	45	77	F
6.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
7.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
8.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
9.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
10.	5-6-17					7	DAY	43	87	F
11.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
12.	5-13-17					7	DAY	51	87	F
13.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
14.	5-20-17					7	DAY	50	80	F
15.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
16.	5-27-17					7	DAY	55	87	F
17.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
18.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
19.	6-3-17					7	DAY	54	89	F
20.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
21.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
22.	6-17-17					7	DAY	62	92	F
23.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
24.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
25.	6-24-17					7	DAY	53	91	F
26.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
27.	7-1-17					7	DAY	60	93	F
28.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
29.	7-8-17					7	DAY	67	98	F
30.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
31.	7-15-17					7	DAY	60	91	F
32.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
33.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
34.	7-22-17					7	DAY	69	99	F
35.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
36.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
37.	7-29-17					7	DAY	61	83	F
38.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
39.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
40.	8-5-17					7	DAY	55	87	F
41.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
42.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
43.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
44.	8-12-17					7	DAY	56	84	F
45.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
46.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
47.	8-19-17					7	DAY	56	94	F
48.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
49.	8-26-17					7	DAY	56	86	F
50.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
51.	9-2-17					7	DAY	47	95	F
52.	9-5-17	0.78	IN	RAIN	rain	1	DAY			
53.	9-9-17					7	DAY	57	83	F
54.	9-13-17	0.13	IN	RAIN	rain	1	DAY			
55.	9-16-17							97	58	F
56.	9-19-17	0.07	IN	RAIN	rain	1	DAY			

57.	9-23-17							95	46	F
58.	9-30-17							86	44	F
59.	10-3-17	0.38	IN	RAIN	rain	1	DAY			
60.	10-7-17							86	50	F
61.	10-7-17	0.16	IN	RAIN	rain	1	DAY			
62.	10-10-17	0.56	IN	RAIN	rain	2	DAY			
63.	10-14-17							89	38	F
64.	10-15-17	0.68	IN	RAIN	rain	1	DAY			

Application Description

	A	B	C
Application Date:	5-18-17	5-27-17	6-8-17
Appl. Start Time:	8:25	15:55	12:05
Appl. Stop Time:	8:35	16:05	12:10
Interval to Prev. Appl., Unit:		9 DAYS	12 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	V2	4"W
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RLS	MCG	RLS
Air Temperature, Unit:	78 F	77 F	77 F
% Relative Humidity:	63	73	33
Wind Velocity, Unit:	11 MPH	8 MPH	3 MPH
Wind Direction:	SSE	NE	NE
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	70 F	69 F	70 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	25	90	0
Next Moisture Occurred On:	5-19-17	5-27-17	6-14-17
Time to Next Moisture, Unit:	9 HR	1 HR	6 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMD	ZEAMD	ZEAMD
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	V2	V4
Stage Minimum, Percent:		V1	V4
Stage Maximum, Percent:		V2	V4
Height, Unit:		2.5 IN	11 IN
Height Minimum, Maximum:		2 3	10 11

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:		COTY	3
Stage Minimum, Percent:		COTY	COTY
Stage Maximum, Percent:		1	3
Height, Unit:		0.6 IN	1 IN
Height Minimum, Maximum:		0.3 1	0.5 1
Density, Unit:		10 FT2	0.9 FT2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:		COTY	6
Stage Minimum, Percent:		COTY	COTY
Stage Maximum, Percent:		2	8
Height, Unit:		0.5 IN	3.5 IN
Height Minimum, Maximum:		0.2 1	0.5 4
Density, Unit:		1 FT2	3 FT2
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Stage Majority, Percent:		COTY	COTY
Stage Minimum, Percent:		COTY	COTY
Stage Maximum, Percent:		COTY	COTY
Height, Unit:		0.5 IN	0.5 IN
Height Minimum, Maximum:		0.3 0.5	0.3 1
Density, Unit:		0.3 FT2	0.3 FT2
Pest 4 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:		1	3
Stage Minimum, Percent:		1	2
Stage Maximum, Percent:		2	4
Height, Unit:		0.3 FT	2 IN
Height Minimum, Maximum:		0.1 0.5	0.1 2.5
Density, Unit:		5 FT2	1 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Incorporation Equip.:	NA	NA	NA
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

Anthem / Solstice Full Sales.
Trial ID: 17-21S-MW50 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
Pest Code												ABUTH	ABUTH	ABUTH	ABUTH
Crop Code										ZEAMD	ZEAMD				
Rating Date										5-31-17	6-15-17	5-31-17	6-15-17	7-18-17	8-10-17
Rating Type										Injury	Injury	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing															
Trt-Eval Interval										15 DA-A	30 DA-A	15 DA-A	30 DA-A	60 DA-A	90 DA-A
1	NONTREATED									0	0	0	0	0	0
2	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	0 c	0 b	99 a	99 a	99 a	99 a
	CALLISTO	4	SC	0.125	lb ai/a	4	fl oz/a	PRE	A						
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A						
3	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	0 c	0 b	99 a	95 b	95 c	95 b
	BALANCE FLEXX	2	SC	0.047	lb ai/a	3	fl oz/a	PRE	A						
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A						
4	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	0 c	0 b	99 a	99 a	99 a	99 a
5	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	0 c	0 b	93 bc	99 a	99 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	PRE	A						
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W	C						
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	4"W	C						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	4"W	C						
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	4"W	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W	C						
6	ANTHEM MAXX	4.3	SC	0.067	lb ai/a	2	fl oz/a	V2	B	19 a	3 a	99 a	97 ab	97 abc	95 b
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	V2	B						
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B						
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	V2	B						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B						
7	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	V2	B	5 b	0 b	99 a	98 a	98 ab	97 ab
	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	V2	B						
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B						
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	V2	B	0 c	0 b	89 c	97 a	95 bc	96 ab
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V2	B						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B						
9	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	0 c	0 b	98 ab	99 a	98 a	99 a
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A						
LSD P=.05										1.4	1.5	5.3	2.4	2.8	3.6
Standard Deviation										1.0	1.0	3.6	1.6	1.9	2.5
CV										33.29	334.66	3.74	1.68	1.94	2.54
Replicate F										0.746	0.952	1.931	0.261	0.900	0.384
Replicate Prob(F)										0.5369	0.4343	0.1555	0.8527	0.4579	0.7654
Treatment F										185.738	2.857	4.490	3.297	3.183	2.518
Treatment Prob(F)										0.0001	0.0308	0.0034	0.0158	0.0185	0.0478

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=10

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMBTR	AMBTR	AMBTR	AMBTR
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code												
	Rating Date									5-31-17	6-15-17	7-18-17	8-10-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing												
	Trt-Eval Interval									15 DA-A	30 DA-A	60 DA-A	90 DA-A
1	NONTREATED									0	0	0	0
2	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	96 a	93 bc	90 abc	90 abc
	CALLISTO	4	SC	0.125	lb ai/a	4	fl oz/a	PRE	A				
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A				
3	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	95 ab	91 cd	88 bc	89 bc
	BALANCE FLEXX	2	SC	0.047	lb ai/a	3	fl oz/a	PRE	A				
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A				
4	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	95 a	97 ab	97 ab	96 ab
5	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	86 c	99 a	98 a	98 a
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	PRE	A				
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W	C				
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	4"W	C				
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	4"W	C				
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	4"W	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W	C				
6	ANTHEM MAXX	4.3	SC	0.067	lb ai/a	2	fl oz/a	V2	B	96 a	86 d	79 d	78 d
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	V2	B				
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B				
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B				
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	V2	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B				
7	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	V2	B	97 a	92 bc	91 abc	91 abc
	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	V2	B				
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B				
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B				
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	V2	B	91 b	86 d	85 cd	83 cd
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V2	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B				
9	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	96 a	98 ab	97 a	97 ab
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A				
	LSD P=.05									3.9	5.8	8.8	8.5
	Standard Deviation									2.7	3.9	6.0	5.8
	CV									2.86	4.25	6.61	6.43
	Replicate F									0.709	0.879	1.780	2.130
	Replicate Prob(F)									0.5572	0.4680	0.1818	0.1269
	Treatment F									7.331	6.024	5.000	6.224
	Treatment Prob(F)									0.0002	0.0006	0.0019	0.0005

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=10

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
Pest Code										IPOSS	IPOSS	IPOSS	IPOSS
Crop Code													
Rating Date										5-31-17	6-15-17	7-18-17	8-10-17
Rating Type										Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99
Rating Timing													
Trt-Eval Interval										15 DA-A	30 DA-A	60 DA-A	90 DA-A
1	NONTREATED									0	0	0	0
2	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	99 a	96 a	96 a	96 ab
	CALLISTO	4	SC	0.125	lb ai/a	4	fl oz/a	PRE	A				
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A				
3	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	99 a	93 a	93 a	91 c
	BALANCE FLEXX	2	SC	0.047	lb ai/a	3	fl oz/a	PRE	A				
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A				
4	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	99 a	98 a	95 a	94 bc
5	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	98 a	98 a	98 a	98 a
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	PRE	A				
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W	C				
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	4"W	C				
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	4"W	C				
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	4"W	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W	C				
6	ANTHEM MAXX	4.3	SC	0.067	lb ai/a	2	fl oz/a	V2	B	99 a	95 a	95 a	96 ab
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	V2	B				
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B				
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B				
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	V2	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B				
7	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	V2	B	99 a	96 a	95 a	95 b
	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	V2	B				
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B				
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B				
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	V2	B	99 a	96 a	96 a	96 ab
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V2	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B				
9	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	99 a	96 a	95 a	95 b
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A				
LSD P=.05										1.2	3.4	4.0	2.6
Standard Deviation										0.8	2.3	2.7	1.8
CV										0.85	2.43	2.87	1.84
Replicate F										0.294	2.046	3.072	3.330
Replicate Prob(F)										0.8292	0.1382	0.0500	0.0392
Treatment F										1.487	1.648	0.957	4.981
Treatment Prob(F)										0.2254	0.1767	0.4863	0.0019

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=10

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code										SETFA	SETFA	SETFA	SETFA	
Crop Code														ZEAMD
Rating Date										5-31-17	6-15-17	7-18-17	8-10-17	10-24-17
Rating Type										Control	Control	Control	Control	Moisture
Rating Unit										0-99	0-99	0-99	0-99	
Rating Timing														
Trt-Eval Interval										15 DA-A	30 DA-A	60 DA-A	90 DA-A	Harvest
1	NONTREATED									0	0	0	0	11.0 b
2	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	99 a	88 a	86 b	86 c	16.2 a
	CALLISTO	4	SC	0.125	lb ai/a	4	fl oz/a	PRE	A					
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A					
3	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	99 a	93 a	91 ab	89 bc	16.3 a
	BALANCE FLEXX	2	SC	0.047	lb ai/a	3	fl oz/a	PRE	A					
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A					
4	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	99 a	99 a	99 a	97 a	16.1 a
5	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	97 a	99 a	99 a	99 a	16.4 a
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	PRE	A					
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W	C					
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	4"W	C					
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	4"W	C					
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	4"W	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W	C					
6	ANTHEM MAXX	4.3	SC	0.067	lb ai/a	2	fl oz/a	V2	B	99 a	94 a	91 ab	91 abc	16.1 a
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	V2	B					
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B					
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B					
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	V2	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B					
7	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	V2	B	99 a	97 a	96 a	96 ab	16.3 a
	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	V2	B					
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B					
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B					
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	V2	B	99 a	99 a	98 a	97 ab	16.2 a
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V2	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B					
9	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	99 a	99 a	98 a	97 a	16.3 a
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A					
LSD P=.05										2.4	7.4	8.5	8.3	2.86
Standard Deviation										1.6	5.0	5.8	5.6	1.96
CV										1.67	5.23	6.11	6.0	12.52
Replicate F										0.842	1.108	0.796	0.980	1.145
Replicate Prob(F)										0.4862	0.3680	0.5100	0.4208	0.3509
Treatment F										0.921	2.483	2.601	2.670	3.212
Treatment Prob(F)										0.5103	0.0503	0.0424	0.0383	0.0126

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=10

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ZEAMD 10-24-17 Test Weight Harvest	ZEAMD 10-24-17 Weight Harvest	ZEAMD 10-24-17 Yield Harvest
Pest Code												
Crop Code												
Rating Date												
Rating Type												
Rating Unit												
Rating Timing												
Trt-Eval Interval												
1	NONTREATED									45.6 a	8.0 b	46.2 b
2	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	59.6 a	34.3 a	196.0 a
	CALLISTO	4	SC	0.125	lb ai/a	4	fl oz/a	PRE	A			
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A			
3	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	59.6 a	34.3 a	195.6 a
	BALANCE FLEXX	2	SC	0.047	lb ai/a	3	fl oz/a	PRE	A			
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A			
4	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	59.7 a	36.6 a	209.3 a
5	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	59.5 a	37.0 a	211.2 a
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	PRE	A			
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W	C			
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	4"W	C			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	4"W	C			
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	4"W	C			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W	C			
6	ANTHEM MAXX	4.3	SC	0.067	lb ai/a	2	fl oz/a	V2	B	59.6 a	32.8 a	187.5 a
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	V2	B			
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B			
	COC (PRIME OIL)	100	SL	0.5	% v/v	0.5	% v/v	V2	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B			
7	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	V2	B	59.6 a	38.4 a	219.2 a
	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	V2	B			
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	V2	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B			
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	V2	B	59.6 a	35.7 a	204.0 a
	AATREX 4L	4	SC	1	lb ai/a	2	pt/a	V2	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	V2	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	B			
9	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	59.6 a	36.9 a	210.2 a
	AATREX 4L	4	SC	1.5	lb ai/a	3	pt/a	PRE	A			
LSD P=.05										14.79	5.81	32.70
Standard Deviation										10.14	3.98	22.41
CV										17.47	12.18	12.01
Replicate F										0.999	4.233	4.251
Replicate Prob(F)										0.4103	0.0155	0.0152
Treatment F										0.849	22.450	22.812
Treatment Prob(F)										0.5704	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=10

Anthem / Solstice Full Sales.
Trial ID: 17-21S-MW50 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: FMC (Anthem/Solstice).
2. Ratings:
   CI 15 and 30 DA-A, get at least one CI rating prior to application C.
   WC 15, 30, 60, and 90 DA-A, get at least one WC rating prior to application C.
   Rate all plots each time.
3. Yield if possible.
4. Rate before spray application C.

Rainfall following application A was 1.46" over 2 days beginning 9 hours after application.
Rainfall following application B was 0.3" over 1 day beginning 1 hour after application.
Rainfall following application C was 1.1" over 2 days beginning 6 days after application.

Rainfall and temperature data is complete up to 10/15. The weather provider that we report has not released data through 10/24 yet.

Plot 105 was located in a low spot in the field, which resulted in stand reduction.

CI in treatment 6 at 15 DA-A rating was complete necrosis of 1 leaf and necrotic speckling on the remaining leaves.

CI in plot 205 at 30 DA-A rating was stunting.

Southern Illinois University
ImpactZ Programs for Performance and Corn Safety Compared to Standards.
Trial ID: 17-21S-W80 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-17-17
Completion Date: 10-24-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Upper Left: 38.520171 89.843086 **Upper Right:** 38.520173 89.843347
Latitude of LL Corner °: 38.520669 N **Lower Right:** 38.520682 89.843306
Longitude of LL Corner °: 89.843049 W USAIL 42.5083389 - 36.9702949
Altitude of LL Corner, Unit: 445.00 FT -87.0199279 - -91.5130844
GPS Precision: G GPS for trial site

Objectives:
Evaluate commercial ImpactZ treatments in one-pass and sequential programs compared to standards.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 63-33 **BBCH Scale:** BCOR
Description: Smart Stax Corn **Maturity Group:** 113 RM
Planting Date: 5-17-17
Planting Method: SEEDED
Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 68 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 3 Type: W **Code:** IPOSS
Common Name: morningglory, species

Pest 4 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Pest 5 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A
2.	FERT	Urea: 325 LB/A (150 LB/A actual N)

Soil Description

Description Name: 21S_2013
% OM: 3 **Texture:** SIL silt loam
pH: 6.5 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	40	lb/A
K	318	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-15-17					7	DAY	49	86	F
2.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
3.	4-22-17					7	DAY	41	80	F
4.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
5.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
6.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
7.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
8.	4-29-17					7	DAY	45	77	F
9.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
10.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
11.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
12.	5-6-17					7	DAY	43	87	F
13.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
14.	5-13-17					7	DAY	51	87	F
15.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
16.	5-20-17				rain	7	DAY	50	80	F
17.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
18.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
19.	5-27-17					7	DAY	55	87	F
20.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
21.	6-3-17					7	DAY	54	89	F
22.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
23.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
24.	6-17-17					7	DAY	62	92	F
25.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
26.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
27.	6-24-17					7	DAY	53	91	F
28.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
29.	7-1-17				rain	7	DAY	60	93	F
30.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
31.	7-8-17					7	DAY	67	98	F
32.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
33.	7-15-17					7	DAY	60	91	F
34.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
35.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
36.	7-22-17					7	DAY	69	99	F
37.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
38.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
39.	7-29-17					7	DAY	61	83	F
40.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
41.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
42.	8-5-17					7	DAY	55	87	F
43.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
44.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
45.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
46.	8-12-17					7	DAY	56	84	F
47.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
48.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
49.	8-19-17					7	DAY	56	94	F
50.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
51.	8-26-17					7	DAY	56	86	F

52.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
53.	9-2-17					7	DAY	47	95	F
54.	9-4-17	0.79	IN	RAIN	rain	1	DAY			
55.	9-9-17					7	DAY	57	83	F
56.	9-12-17	0.12	IN	RAIN	rain	2	DAY			
57.	9-16-17					7	DAY	61	95	F
58.	9-18-17	0.06	IN	RAIN	rain	1	DAY			
59.	9-23-17					7	DAY	49	93	F
60.	9-30-17					7	DAY	48	84	F
61.	10-3-17	0.38	IN	RAIN	rain	1	DAY			
62.	10-5-17	0.05	IN	RAIN	rain	1	DAY			
63.	10-7-17	0.13	IN	RAIN	rain	1	DAY			
64.	10-7-17					7	DAY	50	85	F
65.	10-9-17	0.3	IN	RAIN	rain	1	DAY			
66.	10-10-17	0.28	IN	RAIN	rain	1	DAY			
67.	10-14-17					7	DAY	40	88	F
68.	10-15-17	0.66	IN	RAIN	rain	1	DAY			
69.	10-21-17					7	DAY	36	79	F
70.	10-22-17	0.65	IN	RAIN	rain	2	DAY			
71.	10-28-17					7	DAY	25	76	F

Comment:
Rainfall was recorded on station and provided by Illinois Climate Network. Air temperature was recorded at Scott Air Force Base 2.5 miles north and provided by NOAA's National Centers for Environmental Information. Air temperatures given are summarized as weekly high and low, detailed weather data is available on request.

Application Description

	A	B	C
Application Date:	5-18-17	6-2-17	6-8-17
Appl. Start Time:	8:25	7:20	11:40
Appl. Stop Time:	8:35	7:30	12:00
Interval to Prev. Appl., Unit:		15 DAYS	6 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	2-4"W-1	2-4"W-2
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	MCG	MCG	RLS
Air Temperature, Unit:	80 F	70 F	77 F
% Relative Humidity:	68	74	33
Wind Velocity, Unit:	8 MPH	0 MPH	3 MPH
Wind Direction:	S	NA	NE
Dew Presence (Y/N):	N	Y	N
Soil Temperature, Unit:	70 F	71 F	70 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	20	0	0
Next Moisture Occurred On:	5-19-17	6-4-17	6-14-17
Time to Next Moisture, Unit:	21 HR	48 HR	6 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMD	ZEAMD	ZEAMD
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	V3	V4
Stage Minimum, Percent:		V3	V4
Stage Maximum, Percent:		V3	V4
Height, Unit:		7 IN	11 IN
Height Minimum, Maximum:		6 8	10 11

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:	NA	1	4
Stage Minimum, Percent:		cot	cot
Stage Maximum, Percent:		2	5
Height, Unit:		2 IN	1.5 IN
Height Minimum, Maximum:		0.25 2	0.3 1.5
Density, Unit:		10 FT2	0.9 FT2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	NA	4	4
Stage Minimum, Percent:		cot	cot
Stage Maximum, Percent:		4	8
Height, Unit:		2 IN	2.5 IN
Height Minimum, Maximum:		0.5 2	0.5 4
Density, Unit:		2.5 FT2	2 FT2
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Stage Majority, Percent:	NA	cot	5
Stage Minimum, Percent:		cot	cot
Stage Maximum, Percent:		1	6
Height, Unit:		0.5 IN	1.5 IN
Height Minimum, Maximum:		0.5 1	0.5 1.5
Density, Unit:		3 FT2	0.6 FT2
Pest 4 Code, Type, Scale:	XANST W	XANST W	XANST W
Stage Majority, Percent:	NA	4	6
Stage Minimum, Percent:		cot	cot
Stage Maximum, Percent:		4	6
Height, Unit:		2 IN	2 IN
Height Minimum, Maximum:		0.3 2	0.5 3
Density, Unit:		0.5 FT2	1 FT2
Pest 5 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:	NA	3	2
Stage Minimum, Percent:		1	2
Stage Maximum, Percent:		3	4
Height, Unit:		1 IN	2 IN
Height Minimum, Maximum:		0.25 2	0.3 3.5
Density, Unit:		10 FT2	2 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

ImpactZ Programs for Performance and Corn Safety Compared to Standards.

Trial ID: 17-21S-W80 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ZEAMD 10-24-17 YIELD bu/A Harvest	ZEAMD 10-24-17 MOISTURE Percent Harvest	ZEAMD 10-24-17 TEST WEIGHT lb/bu Harvest	ZEAMD 10-24-17 WEIGHT lb/plot Harvest
1	NONTREATED									74 b	10.4 a	45.4 a	12.8 b
2	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	213 a	16.2 a	59.5 a	37.3 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C				
	MSO (MSO ULTRA)	100	SL	1.0	% v/v	1.0	% v/v	2-4"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C				
3	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	211 a	16.2 a	59.5 a	36.9 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-2	C				
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	2-4"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C				
4	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	213 a	16.1 a	59.6 a	37.2 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C				
	LIBERTY 280	2.34	EC	0.402	lb ai/a	22.0	fl oz/a	2-4"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C				
5	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	191 a	16.1 a	59.6 a	33.4 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C				
	STATUS	56	WG	0.175	lb ae/a	5.0	oz/a	2-4"W-2	C				
	MSO (MSO ULTRA)	100	SL	1.0	% v/v	1.0	% v/v	2-4"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C				
6	HARNESS	7	EC	1.53	lb ai/a	1.75	pt/a	2-4"W-1	B	206 a	16.3 a	59.5 a	36.2 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-1	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-1	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B				
7	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20.0	fl oz/a	2-4"W-1	B	213 a	16.3 a	59.4 a	37.3 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-1	B				
	AATREX 4L	4	SC	0.25	lb ai/a	0.5	pt/a	2-4"W-1	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B				
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	2-4"W-1	B	210 a	16.3 a	59.5 a	36.8 a
	AATREX 4L	4	SC	0.25	lb ai/a	0.5	pt/a	2-4"W-1	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B				
LSD P=.05										50.8	4.06	15.76	8.93
Standard Deviation										34.5	2.76	10.72	6.07
CV										18.04	17.81	18.56	18.14
Replicate F										1.134	0.893	0.989	1.084
Replicate Prob(F)										0.3581	0.4609	0.4170	0.3776
Treatment F										7.770	2.235	0.871	7.727
Treatment Prob(F)										0.0001	0.0727	0.5449	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6,10,9 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code												ABUTH	ABUTH	ABUTH
	Crop Code									ZEAMD	ZEAMD	ZEAMD			
	Rating Date														
	Rating Type									Injury	Injury	Injury	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									7 DAT	14 DAT	28 DAT	14 DAT	28 DAT	42 DAT
1	NONTREATED									0 a	0 a	0 a	0	0	0
2	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	0 a	0 a	0 a	98 a	98 ab	98 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C						
	MSO (MSO ULTRA)	100	SL	1.0	% v/v	1.0	% v/v	2-4"W-2	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C						
3	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	0 a	0 a	0 a	98 a	99 a	98 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-2	C						
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	2-4"W-2	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C						
4	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	0 a	0 a	0 a	98 a	98 ab	98 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C						
	LIBERTY 280	2.34	EC	0.402	lb ai/a	22.0	fl oz/a	2-4"W-2	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C						
5	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	0 a	0 a	0 a	99 a	98 ab	97 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C						
	STATUS	56	WG	0.175	lb ae/a	5.0	oz/a	2-4"W-2	C						
	MSO (MSO ULTRA)	100	SL	1.0	% v/v	1.0	% v/v	2-4"W-2	C						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C						
6	HARNESS	7	EC	1.53	lb ai/a	1.75	pt/a	2-4"W-1	B	0 a	0 a	0 a	97 a	92 c	95 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-1	B						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-1	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B						
7	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20.0	fl oz/a	2-4"W-1	B	0 a	0 a	0 a	97 a	96 b	96 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-1	B						
	AATREX 4L	4	SC	0.25	lb ai/a	0.5	pt/a	2-4"W-1	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B						
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	2-4"W-1	B	0 a	0 a	0 a	98 a	99 a	97 a
	AATREX 4L	4	SC	0.25	lb ai/a	0.5	pt/a	2-4"W-1	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B						
	LSD P=.05									.	.	.	2.0	3.0	1.8
	Standard Deviation									0.0	0.0	0.0	1.4	2.0	1.2
	CV									0.0	0.0	0.0	1.4	2.05	1.26
	Replicate F									0.000	0.000	0.000	0.376	1.965	1.428
	Replicate Prob(F)									1.0000	1.0000	1.0000	0.7715	0.1554	0.2674
	Treatment F									0.000	0.000	0.000	1.025	5.692	2.394
	Treatment Prob(F)									1.0000	1.0000	1.0000	0.4406	0.0018	0.0706

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6,10,9 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMBTR	AMBTR	AMBTR	IPOSS	IPOSS
	Pest Code									AMBTR	AMBTR	AMBTR	IPOSS	IPOSS
	Crop Code													
	Rating Date													
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									14 DAT	28 DAT	42 DAT	28 DAT	42 DAT
1	NONTREATED									0	0	0	0	0
2	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	98 a	98 a	97 a	91 ab	92 b
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C					
	MSO (MSO ULTRA)	100	SL	1.0	% v/v	1.0	% v/v	2-4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C					
3	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	98 a	98 a	97 a	94 ab	91 b
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-2	C					
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	2-4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C					
4	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	98 a	98 a	98 a	91 ab	94 ab
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C					
	LIBERTY 280	2.34	EC	0.402	lb ai/a	22.0	fl oz/a	2-4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C					
5	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	99 a	99 a	99 a	97 a	98 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C					
	STATUS	56	WG	0.175	lb ae/a	5.0	oz/a	2-4"W-2	C					
	MSO (MSO ULTRA)	100	SL	1.0	% v/v	1.0	% v/v	2-4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C					
6	HARNESS	7	EC	1.53	lb ai/a	1.75	pt/a	2-4"W-1	B	98 a	95 a	96 a	90 bc	90 bc
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B					
7	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20.0	fl oz/a	2-4"W-1	B	98 a	96 a	97 a	89 bc	89 bc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-1	B					
	AATREX 4L	4	SC	0.25	lb ai/a	0.5	pt/a	2-4"W-1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B					
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	2-4"W-1	B	99 a	95 a	96 a	85 c	85 c
	AATREX 4L	4	SC	0.25	lb ai/a	0.5	pt/a	2-4"W-1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B					
	LSD P=.05									0.8	3.5	3.0	6.1	5.5
	Standard Deviation									0.5	2.4	2.0	4.1	3.7
	CV									0.55	2.43	2.08	4.47	4.08
	Replicate F									14.137	9.147	7.120	6.032	5.807
	Replicate Prob(F)									0.0001	0.0007	0.0024	0.0050	0.0059
	Treatment F									1.110	1.440	1.094	3.480	4.778
	Treatment Prob(F)									0.3951	0.2541	0.4034	0.0184	0.0044

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6,10,9 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									XANST	XANST	SETFA	SETFA	SETFA
	Crop Code													
	Rating Date													
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									28 DAT	42 DAT	14 DAT	28 DAT	42 DAT
1	NONTREATED									0	0	0	0	0
2	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	97 a	91 b	99 a	99 a	99 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C					
	MSO (MSO ULTRA)	100	SL	1.0	% v/v	1.0	% v/v	2-4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C					
3	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	96 a	94 ab	99 a	99 a	99 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-2	C					
	MSO (MSO ULTRA)	100	SL	0.5	% v/v	0.5	% v/v	2-4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C					
4	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	97 a	93 ab	99 a	99 a	99 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C					
	LIBERTY 280	2.34	EC	0.402	lb ai/a	22.0	fl oz/a	2-4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C					
5	HARNESS XTRA 5.6L	5.6	EC	2.52	lb ai/a	3.6	pt/a	PRE	A	99 a	98 a	99 a	99 a	99 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-2	C					
	STATUS	56	WG	0.175	lb ae/a	5.0	oz/a	2-4"W-2	C					
	MSO (MSO ULTRA)	100	SL	1.0	% v/v	1.0	% v/v	2-4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-2	C					
6	HARNESS	7	EC	1.53	lb ai/a	1.75	pt/a	2-4"W-1	B	96 a	96 a	99 a	99 a	99 a
	IMPACTZ	4.26	SC	0.266	lb ai/a	8.0	fl oz/a	2-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B					
7	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20.0	fl oz/a	2-4"W-1	B	98 a	98 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	2-4"W-1	B					
	AATREX 4L	4	SC	0.25	lb ai/a	0.5	pt/a	2-4"W-1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B					
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	2-4"W-1	B	97 a	97 a	99 a	98 b	98 a
	AATREX 4L	4	SC	0.25	lb ai/a	0.5	pt/a	2-4"W-1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W-1	B					
	LSD P=.05									2.8	4.8	.	0.6	1.0
	Standard Deviation									1.9	3.2	0.0	0.4	0.7
	CV									1.93	3.38	0.0	0.39	0.67
	Replicate F									3.619	2.711	0.000	0.243	0.550
	Replicate Prob(F)									0.0333	0.0756	1.0000	0.8650	0.6543
	Treatment F									1.095	2.751	0.000	8.351	0.743
	Treatment Prob(F)									0.4025	0.0446	1.0000	0.0002	0.6223

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6,10,9 because error mean square = 0.

Southern Illinois University
ImpactZ Programs for Performance and Corn Safety Compared to Standards.
Trial ID: 17-21S-W80 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: AMVAC (17C04H060).
2. Ratings:
   CI 7 and 14 DA-B+C, rate B and C in the same column on different dates.
   WC 14, 28, and 42 DA-B+C, rate B and C in the same column on different dates.
3. Yield if possible.
4. Blanket fungicides and insecticides as needed.
5. Application B is 2-4 inch weeds without a PRE application (probably sooner than C).
   Application C is 2-4 inch weeds following a PRE application (probably later than B).

Rainfall following PRE application A was 1.46" over 2 days begining 21 hours after application.
Rainfall following application B was 0.40" over 1 day begining 48 hours after application.
Rainfall following application C was 1.10" over 2 days begining 6 days after application.

IPOSS is a mixture of pitted and ivyleaf morninglory.

The rating dates in 'assessment data' are given as 'days after treatment' (DAT).
The actual dates of data collection are as follows:
6/9: 7 DA-B
6/16: 14 DA-B & 8 DA-C
6/22: 14 DA-C
6/29: 27 DA-B
7/6: 28 DA-C
7/13: 41 DA-B
7/20: 42 DA-C

Harvested area per plot = 27' x 5'.

Southern Illinois University

Evaluation of Efficacy of Tank-Mix Partners for Halex GT versus Competitors.
Trial ID: 17-21S-MME40 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-17-17
Completion Date: 10-24-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.520868 N
Longitude of LL Corner °: 89.843868 W
Altitude of LL Corner, Unit: 435.00 FT
Angle y-axis to North °: 180.00
GPS Precision: G GPS for trial site

Objectives:
Compare significant Halex GT tank-mix partners for differences in control of difficult weeds and compared to competitive standards.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 63-33 **BBCH Scale:** BCOR
Description: SS RIB

Planting Date: 5-17-17
Planting Method: SEEDED
Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 68 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 3 Type: W **Code:** IPOHE Ipomoea hederacea (L.) Jacq.
Common Name: morningglory, ivyleaf

Pest 4 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 150 LB/A, P2O5 50 LB/A, K2O 150 LB/A

Soil Description

Description Name: 21S_2013
% OM: 3 **Texture:** SIL silt loam
pH: 6.5 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	40	lb/A
K	318	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	39	70	F
2.	4-2-17	1.85	IN	RAIN	rain	5	DAY			
3.	4-8-17					7	DAY	39	81	F
4.	4-10-17	0.12	IN	RAIN	rain	1	DAY			
5.	4-14-17	0.21	IN	RAIN	rain	1	DAY			
6.	4-15-17					7	DAY	49	86	F
7.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
8.	4-22-17					7	DAY	41	80	F
9.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
10.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
11.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
12.	4-29-17					7	DAY	45	77	F
13.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
14.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
15.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
16.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
17.	5-6-17					7	DAY	43	87	F
18.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
19.	5-13-17					7	DAY	51	87	F
20.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
21.	5-20-17					7	DAY	50	80	F
22.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
23.	5-27-17					7	DAY	55	87	F
24.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
25.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
26.	6-3-17					7	DAY	54	89	F
27.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
28.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
29.	6-17-17					7	DAY	62	92	F
30.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
31.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
32.	6-24-17					7	DAY	53	91	F
33.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
34.	7-1-17					7	DAY	60	93	F
35.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
36.	7-8-17					7	DAY	67	98	F
37.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
38.	7-15-17					7	DAY	60	91	F
39.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
40.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
41.	7-22-17					7	DAY	69	99	F
42.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
43.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
44.	7-29-17					7	DAY	61	83	F
45.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
46.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
47.	8-5-17					7	DAY	55	87	F
48.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
49.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
50.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
51.	8-12-17					7	DAY	56	84	F

52.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
53.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
54.	8-19-17					7	DAY	56	94	F
55.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
56.	8-26-17					7	DAY	56	86	F
57.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
58.	9-2-17					7	DAY	47	95	F
59.	9-5-17	0.78	IN	RAIN	rain	1	DAY			
60.	9-9-17					7	DAY	57	83	F
61.	9-13-17	0.13	IN	RAIN	rain	1	DAY			
62.	9-16-17							97	58	F
63.	9-19-17	0.07	IN	RAIN	rain	1	DAY			
64.	9-23-17							95	46	F
65.	9-30-17							86	44	F
66.	10-3-17	0.38	IN	RAIN	rain	1	DAY			
67.	10-7-17							86	50	F
68.	10-7-17	0.16	IN	RAIN	rain	1	DAY			
69.	10-10-17	0.56	IN	RAIN	rain	2	DAY			
70.	10-14-17							89	38	F
71.	10-15-17	0.66	IN	RAIN	rain	1	DAY			
72.	10-21-17					7	DAY	36	79	F
73.	10-22-17	0.65	IN	RAIN	rain	2	DAY			
74.	10-28-17					7	DAY	25	76	F

Application Description

	A
Application Date:	6-8-17
Appl. Start Time:	13:10
Appl. Stop Time:	13:50
Application Method:	Spray
Application Timing:	6-8"W
Application Placement:	BROFOL
Applied By:	RLS
Air Temperature, Unit:	79 F
% Relative Humidity:	34
Wind Velocity, Unit:	5 MPH
Wind Direction:	NE
Dew Presence (Y/N):	N
Soil Temperature, Unit:	69.6 F
Soil Moisture:	NORMAL
% Cloud Cover:	0
Next Moisture Occurred On:	6-14-17
Time to Next Moisture, Unit:	6 DAY

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	ZEAMD
Stage Scale Used:	DESC
Stage Majority, Percent:	V4
Stage Minimum, Percent:	V4
Stage Maximum, Percent:	V4
Height, Unit:	10.5 IN
Height Minimum, Maximum:	10 11

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMATA W
Stage Majority, Percent:	5
Stage Minimum, Percent:	COT
Stage Maximum, Percent:	8
Height, Unit:	2 IN
Height Minimum, Maximum:	0.3 3
Density, Unit:	2 FT
Pest 2 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	8
Stage Minimum, Percent:	COT
Stage Maximum, Percent:	13
Height, Unit:	6 IN
Height Minimum, Maximum:	3 9
Density, Unit:	10 FT2
Pest 3 Code, Type, Scale:	IPOHE W
Stage Majority, Percent:	8
Stage Minimum, Percent:	4
Stage Maximum, Percent:	10
Height, Unit:	2 IN
Height Minimum, Maximum:	2 3.5
Density, Unit:	1 FT2
Pest 4 Code, Type, Scale:	XANST W
Stage Majority, Percent:	6
Stage Minimum, Percent:	4
Stage Maximum, Percent:	8
Height, Unit:	4 IN
Height Minimum, Maximum:	2.5 6
Density, Unit:	2 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Nozzle Spacing, Unit:	20 IN
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Evaluation of Efficacy of Tank-Mix Partners for Halex GT versus Competitors.
Trial ID: 17-21S-MME40 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code												
	Crop Code									ZEAMD	ZEAMD	ZEAMD	ZEAMD
	Rating Date									6-14-17	6-14-17	6-21-17	7-6-17
	Rating Type									Injury	Wilt	Injury	Injury
	Rating Unit									0-99	0-5	0-99	0-99
	Rating Timing												
	Trt-Eval Interval									6 DA-A	6 DA-A	13 DA-A	28 DA-A
1	ACURON	3.44	CS	1.29	lb ai/a	1.5	qt/a	6-8"W	A	0 a	4 a	7 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
2	ACURON FLEXI	3.26	ES	0.9	lb ai/a	1.1	qt/a	6-8"W	A	0 a	3 a	5 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
3	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	0 a	3 a	5 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
4	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	0 a	2 a	7 a	0 a
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
5	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	0 a	1 a	8 a	0 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
6	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	0 a	3 a	12 a	0 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A				
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
7	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	0 a	2 a	7 a	0 a
	STATUS	56	WG	0.0875	lb ae/a	2.5	oz/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	0 a	2 a	7 a	0 a
	STINGER	3	EC	0.0586	lb ae/a	2.5	fl oz/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
9	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	6-8"W	A	0 a	5 a	18 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
10	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20	fl oz/a	6-8"W	A	0 a	4 a	12 a	0 a
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A				
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
11	NONTREATED									0	5	0	0
	LSD P=.05									.	3.3	18.2	.
	Standard Deviation									0.0	1.9	10.6	0.0
	CV									0.0	67.37	122.43	0.0
	Replicate F									0.000	1.457	0.474	0.000
	Replicate Prob(F)									1.0000	0.2592	0.6302	1.0000
	Treatment F									0.000	0.997	0.457	0.000
	Treatment Prob(F)									1.0000	0.4762	0.8844	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									AMATA	AMATA	AMATA	AMATA
	Crop Code												
	Rating Date									6-21-17	7-6-17	7-18-17	8-1-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing												
	Trt-Eval Interval									13 DA-A	28 DA-A	40 DA-A	54 DA-A
1	ACURON	3.44	CS	1.29	lb ai/a	1.5	qt/a	6-8"W	A	98 a	96 a	96 a	97 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
2	ACURON FLEXI	3.26	ES	0.9	lb ai/a	1.1	qt/a	6-8"W	A	92 a	90 a	91 a	92 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
3	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	92 a	90 a	94 a	90 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
4	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	97 a	97 a	97 a	93 a
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
5	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	94 a	95 a	96 a	98 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
6	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	98 a	97 a	96 a	97 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A				
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
7	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	94 a	96 a	94 a	95 a
	STATUS	56	WG	0.0875	lb ae/a	2.5	oz/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	93 a	93 a	96 a	93 a
	STINGER	3	EC	0.0586	lb ae/a	2.5	fl oz/a	6-8"W	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
9	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	6-8"W	A	95 a	91 a	93 a	91 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
10	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20	fl oz/a	6-8"W	A	98 a	96 a	96 a	98 a
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A				
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A				
11	NONTREATED									0	0	0	0
	LSD P=.05									6.6	7.3	7.9	6.4
	Standard Deviation									3.9	4.2	4.6	3.8
	CV									4.07	4.5	4.85	3.97
	Replicate F									0.009	0.293	1.801	0.021
	Replicate Prob(F)									0.9911	0.7495	0.1937	0.9789
	Treatment F									1.335	1.287	0.488	1.793
	Treatment Prob(F)									0.2867	0.3087	0.8641	0.1394

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code										AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
Crop Code														
Rating Date										6-14-17	6-21-17	7-6-17	7-18-17	8-1-17
Rating Type										Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing														
Trt-Eval Interval										6 DA-A	13 DA-A	28 DA-A	40 DA-A	54 DA-A
1	ACURON	3.44	CS	1.29	lb ai/a	1.5	qt/a	6-8"W	A	97 a	99 a	99 ab	98 a	98 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
2	ACURON FLEXI	3.26	ES	0.9	lb ai/a	1.1	qt/a	6-8"W	A	92 c	98 a	98 abc	98 ab	99 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
3	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	90 c	98 a	97 cd	97 bc	97 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
4	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	97 a	99 a	99 ab	99 a	98 a
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
5	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	95 ab	99 a	97 bcd	97 bc	98 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
6	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	97 a	99 a	98 abc	98 ab	98 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
7	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	95 ab	98 a	98 abc	98 ab	98 a
	STATUS	56	WG	0.0875	lb ae/a	2.5	oz/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	92 c	98 a	99 a	99 a	99 a
	STINGER	3	EC	0.0586	lb ae/a	2.5	fl oz/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
9	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	6-8"W	A	92 bc	99 a	98 abc	98 ab	98 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
10	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20	fl oz/a	6-8"W	A	96 a	99 a	96 d	96 c	97 a
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A					
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
11	NONTREATED									0	0	0	0	0
LSD P=.05										3.0	1.4	1.6	1.6	1.2
Standard Deviation										1.8	0.8	1.0	0.9	0.7
CV										1.87	0.82	0.98	0.93	0.73
Replicate F										2.772	0.205	0.474	1.995	0.854
Replicate Prob(F)										0.0893	0.8169	0.6302	0.1649	0.4422
Treatment F										7.039	1.273	2.737	3.891	1.723
Treatment Prob(F)										0.0002	0.3158	0.0330	0.0068	0.1558

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	IPOHE	IPOHE	IPOHE	IPOHE	IPOHE
	Pest Code									IPOHE	IPOHE	IPOHE	IPOHE	IPOHE
	Crop Code													
	Rating Date									6-14-17	6-21-17	7-6-17	7-18-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									6 DA-A	13 DA-A	28 DA-A	40 DA-A	54 DA-A
1	ACURON	3.44	CS	1.29	lb ai/a	1.5	qt/a	6-8"W	A	85 ab	96 ab	92 a	92 a	92 abc
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
2	ACURON FLEXI	3.26	ES	0.9	lb ai/a	1.1	qt/a	6-8"W	A	43 d	91 c	92 a	92 a	93 abc
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
3	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	43 d	90 c	85 a	84 a	85 d
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
4	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	93 ab	98 a	91 a	91 a	95 ab
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
5	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	93 ab	96 ab	95 a	94 a	97 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
6	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	94 a	99 a	95 a	95 a	95 ab
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
7	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	92 ab	96 ab	96 a	96 a	96 ab
	STATUS	56	WG	0.0875	lb ae/a	2.5	oz/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	58 c	92 bc	94 a	94 a	94 abc
	STINGER	3	EC	0.0586	lb ae/a	2.5	fl oz/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
9	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	6-8"W	A	50 cd	91 c	90 a	90 a	88 cd
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
10	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20	fl oz/a	6-8"W	A	80 b	94 abc	87 a	87 a	90 bcd
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A					
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
11	NONTREATED									0	0	0	0	0
	LSD P=.05									13.8	4.7	7.6	7.4	6.0
	Standard Deviation									8.1	2.8	4.4	4.3	3.5
	CV									11.0	2.93	4.81	4.73	3.79
	Replicate F									0.780	3.394	1.448	1.622	2.944
	Replicate Prob(F)									0.4734	0.0561	0.2612	0.2251	0.0783
	Treatment F									22.146	4.047	2.041	2.164	3.372
	Treatment Prob(F)									0.0001	0.0056	0.0944	0.0781	0.0135

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	XANST 7-6-17 Control 0-99 28 DA-A	XANST 7-18-17 Control 0-99 40 DA-A	XANST 8-1-17 Control 0-99 54 DA-A	GLXMA 10-24-17 Yield bu/A Harvest 138 DA-A	GLXMA 10-24-17 Moisture Percent Harvest 138 DA-A
1	ACURON	3.44	CS	1.29	lb ai/a	1.5	qt/a	6-8"W	A	99 a	98 a	99 a	175.4 ab	16.5 ab
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
2	ACURON FLEXI	3.26	ES	0.9	lb ai/a	1.1	qt/a	6-8"W	A	96 a	96 a	94 a	188.5 ab	17.0 a
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
3	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	91 a	91 a	91 a	162.9 b	16.7 ab
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
4	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	98 a	98 a	97 a	186.2 ab	16.6 ab
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
5	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	98 a	98 a	98 a	199.7 a	16.9 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
6	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	98 a	98 a	98 a	196.0 a	16.7 ab
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A					
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
7	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	95 a	95 a	92 a	193.2 a	16.3 b
	STATUS	56	WG	0.0875	lb ae/a	2.5	oz/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	99 a	99 a	99 a	198.0 a	16.8 ab
	STINGER	3	EC	0.0586	lb ae/a	2.5	fl oz/a	6-8"W	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
9	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	6-8"W	A	99 a	99 a	99 a	161.9 b	16.6 ab
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
10	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20	fl oz/a	6-8"W	A	96 a	96 a	97 a	163.3 b	16.6 ab
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A					
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A					
11	NONTREATED									0	0	0	0.6 c	0.1 c
LSD P=.05										8.4	8.3	10.4	28.14	0.50
Standard Deviation										4.9	4.8	6.1	16.52	0.29
CV										5.03	4.99	6.28	9.95	1.94
Replicate F										1.851	2.084	1.572	4.602	1.063
Replicate Prob(F)										0.1857	0.1534	0.2349	0.0227	0.3642
Treatment F										0.769	0.745	0.685	35.383	863.931
Treatment Prob(F)										0.6460	0.6649	0.7132	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval										GLXMA 10-24-17 Test wt. lb/bu Harvest 138 DA-A	GLXMA 10-24-17 Weight lb/plot Harvest 138 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	ACURON	3.44	CS	1.29	lb ai/a	1.5	qt/a	6-8"W	A	59.3 ab	30.81 ab
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
2	ACURON FLEXI	3.26	ES	0.9	lb ai/a	1.1	qt/a	6-8"W	A	58.9 c	33.28 ab
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
3	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	59.2 abc	28.66 b
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
4	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	59.2 abc	32.75 ab
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
5	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	59.0 bc	35.23 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
6	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	59.1 abc	34.52 a
	NORTHSTAR	51.4	WG	0.08	lb ai/a	2.5	oz/a	6-8"W	A		
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
7	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	59.4 a	33.84 a
	STATUS	56	WG	0.0875	lb ae/a	2.5	oz/a	6-8"W	A		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
8	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	6-8"W	A	59.1 abc	34.90 a
	STINGER	3	EC	0.0586	lb ae/a	2.5	fl oz/a	6-8"W	A		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
9	RESICORE	3.29	EC	1.03	lb ai/a	1.25	qt/a	6-8"W	A	59.2 abc	28.48 b
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
10	ARMEZON PRO	5.35	EC	0.84	lb ai/a	20	fl oz/a	6-8"W	A	59.2 abc	28.71 b
	AATREX 4L	4	SC	0.5	lb ai/a	1	pt/a	6-8"W	A		
	ROUNDUP POWERMAX	4.5	SL	0.91	lb ae/a	26	fl oz/a	6-8"W	A		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	6-8"W	A		
11	NONTREATED									0.0 d	0.09 c
LSD P=.05										0.36	4.906
Standard Deviation										0.21	2.881
CV										0.39	9.86
Replicate F										0.599	4.680
Replicate Prob(F)										0.5590	0.0215
Treatment F										21215.111	36.107
Treatment Prob(F)										0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Southern Illinois University

Evaluation of Efficacy of Tank-Mix Partners for Halex GT versus Competitors.

Trial ID: 17-21S-MME40 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Syngenta (EHL/WHLCor08-2017).
2. Ratings:
   CI 7, 14, and 28 DA-A.
   WC 7, 14, 28, 42 and 56 DA-A.
3. Yield.
4. Photos requested at 28 DA-A.
5. Application A is 6-8 inch weeds and less than 8 inch corn.

Rainfall following application A was 1.1" over 2 days beginning 6 days after application.

Corn wilt, due to drought stress and weed competition, was rated on 6/14; severity was rated on a scale of 1-5, where 5 = most severe.

CI on 6/21, 13 DA-A, was stunting.

Harvested plot area = 27' x 5'.

Pictures available from 7/6, 28 DA-A.

Southern Illinois University

Armezon Pro Adjuvant Efficacy and Timing.
Trial ID: 17-24B Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-26-17
Completion Date: 10-24-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Upper Left: 38.5174 89.84241 **Upper Right:** 38.51741 89.84291
Latitude of LL Corner °: 38.51784 N **Lower Right:** 38.51785 89.84292
Longitude of LL Corner °: 89.84241 W
Altitude of LL Corner, Unit: 435.00 FT
Angle y-axis to North °: 180.00
GPS Precision: G GPS for trial site

Objectives:
Compare Armezon Pro efficacy with different adjuvants and tank-mix partners, to competitive products, and at different timings for treatments with and without atrazine.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ZEAMD Zea mays indentata Dent corn
Variety: DKC 63-33 **BBCH Scale:** BCOR
Description: SS RIB

Planting Date: 5-26-17
Planting Method: SEEDED
Planting Rate, Unit: 32000 S/A
Depth, Unit: 1.5 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 67 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 4 Type: W **Code:** IPOHE Ipomoea hederacea (L.) Jacq.
Common Name: morningglory, ivyleaf

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 50 LB/A, K2O 200 LB/A
2.	FERT	N 150 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: 24B_2013
% OM: 3 **Texture:** SIL silt loam
pH: 6.5 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	56	lb/A
K	297	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-29-17					7	DAY	45	77	F
2.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
3.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
4.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
5.	5-6-17					7	DAY	43	87	F
6.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
7.	5-13-17					7	DAY	51	87	F
8.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
9.	5-20-17					7	DAY	50	80	F
10.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
11.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
12.	5-27-17					7	DAY	55	87	F
13.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
14.	6-3-17				rain	7	DAY	54	89	F
15.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
16.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
17.	6-17-17					7	DAY	62	92	F
18.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
19.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
20.	6-24-17					7	DAY	53	91	F
21.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
22.	7-1-17					7	DAY	60	93	F
23.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
24.	7-8-17					7	DAY	67	98	F
25.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
26.	7-15-17					7	DAY	60	91	F
27.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
28.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
29.	7-22-17				rain	7	DAY	69	99	F
30.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
31.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
32.	7-29-17					7	DAY	61	83	F
33.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
34.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
35.	8-5-17					7	DAY	55	87	F
36.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
37.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
38.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
39.	8-12-17					7	DAY	56	84	F
40.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
41.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
42.	8-19-17					7	DAY	56	94	F
43.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
44.	8-26-17					7	DAY	56	86	F
45.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
46.	9-2-17					7	DAY	47	95	F
47.	9-4-17	0.79	IN	RAIN	rain	1	DAY			
48.	9-9-17					7	DAY	57	83	F
49.	9-12-17	0.12	IN	RAIN	rain	2	DAY			
50.	9-16-17					7	DAY	61	95	F
51.	9-18-17	0.06	IN	RAIN	rain	1	DAY			

52.	9-23-17					7	DAY	49	93	F
53.	9-30-17					7	DAY	48	84	F
54.	10-3-17	0.38	IN	RAIN	rain	1	DAY			
55.	10-5-17	0.05	IN	RAIN	rain	1	DAY			
56.	10-7-17	0.13	IN	RAIN	rain	1	DAY			
57.	10-7-17					7	DAY	50	85	F
58.	10-9-17	0.3	IN	RAIN	rain	1	DAY			
59.	10-10-17	0.28	IN	RAIN	rain	1	DAY			
60.	10-14-17					7	DAY	40	88	F
61.	10-15-17	0.66	IN	RAIN	rain	1	DAY			
62.	10-21-17					7	DAY	36	79	F
63.	10-22-17	0.65	IN	RAIN	rain	2	DAY			

Comment:
Rainfall was recorded on station and provided by Illinois Climate Network. Air temperature was recorded at Scott Air Force Base 2.5 miles north and provided by NOAA's National Centers for Environmental Information. Air temperatures given are summarized as weekly high and low, detailed weather data
is available on request.

Application Description

	A	B
Application Date:	6-6-17	6-15-17
Appl. Start Time:	7:50	14:40
Appl. Stop Time:	8:10	14:45
Interval to Prev. Appl., Unit:		9 DAYS
Application Method:	Spray	Spray
Application Timing:	V2	V5
Application Placement:	BROFOL	BROFOL
Applied By:	MCG	MCG
Air Temperature, Unit:	69 F	87 F
% Relative Humidity:	55	55
Wind Velocity, Unit:	10 MPH	8 MPH
Wind Direction:	N	NW
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	73 F	75 F
Soil Moisture:	NORMAL	ABONOR
% Cloud Cover:	0	5
Next Moisture Occurred On:	6-14-17	6-18-17
Time to Next Moisture, Unit:	8 DAY	69 HR

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMD	ZEAMD
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	V2	V5
Stage Minimum, Percent:	V2	V4
Stage Maximum, Percent:	V2	V5
Height, Unit:	5 IN	13 IN
Height Minimum, Maximum:	5 5	12 14

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W
Stage Majority, Percent:	1	4
Stage Minimum, Percent:	cot	cot
Stage Maximum, Percent:	2	5
Height, Unit:	1 IN	6 IN
Height Minimum, Maximum:	0.4 1	0.3 9
Density, Unit:	7 FT2	0.2 FT2
Pest 2 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:	2	15
Stage Minimum, Percent:	cot	cot
Stage Maximum, Percent:	3	20
Height, Unit:	0.8 IN	5 IN
Height Minimum, Maximum:	0.2 0.8	0.3 7
Density, Unit:	10 FT2	40 FT2
Pest 3 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:	2	5
Stage Minimum, Percent:	cot	cot
Stage Maximum, Percent:	2	9
Height, Unit:	1 IN	6 IN
Height Minimum, Maximum:	0.75 1	0.3 9
Density, Unit:	1 FT2	0.3 FT2
Pest 4 Code, Type, Scale:	IPOHE W	IPOHE W
Stage Majority, Percent:	cot	6
Stage Minimum, Percent:	cot	cot
Stage Maximum, Percent:	cot	7
Height, Unit:	0.5 IN	0.5 IN
Height Minimum, Maximum:	0.5 0.75	0.4 4
Density, Unit:	0.2 FT2	0.1 FT2

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	XR
Nozzle Size:	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

Armezon Pro Adjuvant Efficacy and Timing.
Trial ID: 17-24B Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
Pest Code												
Crop Code										ZEAMD	ZEAMD	ZEAMD
Rating Date												
Rating Type										Injury	Injury	Injury
Rating Unit										0-99	0-99	0-99
Rating Timing												
Trt-Eval Interval										7-14 DAT	21-35 DAT	42-63 DAT
1	NONTREATED									0	0	0
2	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	0 c	0 a	0 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
3	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	0 c	0 a	0 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
4	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	0 c	0 a	0 a
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
5	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	0 c	0 a	0 a
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
6	ACURON	3.44	CS	1.29	lb ai/a	48.0	fl oz/a	V2	A	8 b	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
7	RESICORE	3.29	EC	1.03	lb ai/a	40.0	fl oz/a	V2	A	13 a	0 a	0 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
8	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V5	B	0 c	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.186	lb ae/a	5.3	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
9	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V5	B	0 c	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	MSO DREXEL	100	SL	1	% v/v	1.0	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
10	ACURON FLEXI	3.26	ES	0.92	lb ai/a	36.0	fl oz/a	V5	B	0 c	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
LSD P=.05										3.4	.	.
Standard Deviation										2.3	0.0	0.0
CV										103.83	0.0	0.0
Replicate F										1.391	0.000	0.000
Replicate Prob(F)										0.2696	1.0000	1.0000
Treatment F										15.783	0.000	0.000
Treatment Prob(F)										0.0001	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,23,22,20,21
Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
Pest Code										ABUTH	ABUTH	ABUTH
Crop Code												
Rating Date												
Rating Type										Control	Control	Control
Rating Unit										0-99	0-99	0-99
Rating Timing												
Trt-Eval Interval										7-14 DAT	21-35 DAT	42-63 DAT
1	NONTREATED									0	0	0
2	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	89 b	86 b	85 b
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
3	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	89 b	80 b	84 b
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
4	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	88 b	83 b	85 b
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
5	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	86 b	83 b	84 b
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
6	ACURON	3.44	CS	1.29	lb ai/a	48.0	fl oz/a	V2	A	96 a	97 a	97 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
7	RESICORE	3.29	EC	1.03	lb ai/a	40.0	fl oz/a	V2	A	97 a	95 a	97 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
8	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V5	B	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.186	lb ae/a	5.3	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
9	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V5	B	99 a	96 a	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	MSO DREXEL	100	SL	1	% v/v	1.0	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
10	ACURON FLEXI	3.26	ES	0.92	lb ai/a	36.0	fl oz/a	V5	B	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
LSD P=.05										5.1	8.4	7.6
Standard Deviation										3.5	5.8	5.2
CV										3.77	6.35	5.65
Replicate F										1.299	0.325	1.282
Replicate Prob(F)										0.2977	0.8075	0.3030
Treatment F										9.560	7.329	7.682
Treatment Prob(F)										0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=8,23,22,20,21
Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									AMATA	AMATA	AMATA
	Crop Code											
	Rating Date											
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									7-14 DAT	21-35 DAT	42-63 DAT
1	NONTREATED									0	0	0
2	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	99 a	97 a	98 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
3	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
4	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	98 a	97 a	98 a
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
5	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	99 a	98 a	97 ab
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
6	ACURON	3.44	CS	1.29	lb ai/a	48.0	fl oz/a	V2	A	99 a	97 a	97 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
7	RESICORE	3.29	EC	1.03	lb ai/a	40.0	fl oz/a	V2	A	99 a	99 a	99 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
8	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V5	B	88 c	86 c	95 b
	ROUNDUP POWERMAX	4.5	SL	0.186	lb ae/a	5.3	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
9	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V5	B	94 b	95 ab	97 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	MSO DREXEL	100	SL	1	% v/v	1.0	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
10	ACURON FLEXI	3.26	ES	0.92	lb ai/a	36.0	fl oz/a	V5	B	93 b	92 b	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
	LSD P=.05									2.3	4.0	2.1
	Standard Deviation									1.6	2.8	1.4
	CV									1.67	2.88	1.46
	Replicate F									1.218	0.189	2.734
	Replicate Prob(F)									0.3246	0.9026	0.0659
	Treatment F									24.181	9.037	2.945
	Treatment Prob(F)									0.0001	0.0001	0.0192

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Missing data estimates are included in columns:Average=8,23,22,20,21
Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									AMBTR	AMBTR	AMBTR
	Crop Code											
	Rating Date											
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									7-14 DAT	21-35 DAT	42-63 DAT
1	NONTREATED									0	0	0
2	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	91 cd	91 c	94 c
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
3	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	92 cd	93 bc	94 c
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
4	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	90 cd	89 c	94 c
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
5	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	89 d	91 c	95 bc
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
6	ACURON	3.44	CS	1.29	lb ai/a	48.0	fl oz/a	V2	A	92 cd	96 ab	97 abc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
7	RESICORE	3.29	EC	1.03	lb ai/a	40.0	fl oz/a	V2	A	94 bc	96 ab	98 ab
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
8	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V5	B	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.186	lb ae/a	5.3	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
9	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V5	B	98 ab	98 a	98 ab
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	MSO DREXEL	100	SL	1	% v/v	1.0	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
10	ACURON FLEXI	3.26	ES	0.92	lb ai/a	36.0	fl oz/a	V5	B	99 a	98 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
	LSD P=.05									4.4	4.2	2.9
	Standard Deviation									3.0	2.9	2.0
	CV									3.2	3.05	2.05
	Replicate F									1.559	3.010	2.764
	Replicate Prob(F)									0.2277	0.0500	0.0640
	Treatment F									6.859	6.240	3.754
	Treatment Prob(F)									0.0002	0.0002	0.0056

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Missing data estimates are included in columns:Average=8,23,22,20,21
Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	IPOHE	IPOHE	IPOHE	ZEAMD
	Pest Code									IPOHE	IPOHE	IPOHE	
	Crop Code												ZEAMD
	Rating Date												10-24-17
	Rating Type									Control	Control	Control	Yield
	Rating Unit									0-99	0-99	0-99	bu/A
	Rating Timing												
	Trt-Eval Interval									7-14 DAT	21-35 DAT	42-63 DAT	Harvest
1	NONTREATED									0	0	0	79 c
2	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	31 c	13 d	63 c	194 ab
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A				
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A				
3	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	56 b	50 bc	64 bc	197 ab
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A				
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A				
4	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	50 bc	63 ab	81 ab	194 ab
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A				
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A				
	WATER COND NON AMMONIA	100	SL					V2	A				
5	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	50 bc	65 ab	86 a	203 a
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A				
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V2	A				
	WATER COND NON AMMONIA	100	SL					V2	A				
6	ACURON	3.44	CS	1.29	lb ai/a	48.0	fl oz/a	V2	A	63 b	25 cd	66 bc	194 ab
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A				
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A				
7	RESICORE	3.29	EC	1.03	lb ai/a	40.0	fl oz/a	V2	A	69 ab	56 abc	78 abc	204 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A				
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A				
8	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V5	B	91 a	91 a	92 a	189 ab
	ROUNDUP POWERMAX	4.5	SL	0.186	lb ae/a	5.3	fl oz/a	V5	B				
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B				
9	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V5	B	89 a	85 ab	86 a	187 ab
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B				
	MSO DREXEL	100	SL	1	% v/v	1.0	% v/v	V5	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B				
10	ACURON FLEXI	3.26	ES	0.92	lb ai/a	36.0	fl oz/a	V5	B	91 a	91 a	95 a	178 b
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B				
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B				
	LSD P=.05									23.3	35.1	18.1	20.9
	Standard Deviation									16.0	24.0	12.4	14.2
	CV									24.43	40.14	15.73	7.83
	Replicate F									1.203	1.416	0.784	3.397
	Replicate Prob(F)									0.3299	0.2625	0.5144	0.0368
	Treatment F									7.009	5.374	3.860	27.042
	Treatment Prob(F)									0.0001	0.0006	0.0048	0.0001

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Missing data estimates are included in columns:Average=8,23,22,20,21
Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval									ZEAMD 10-24-17 Weight lb/Plot Harvest	ZEAMD 10-24-17 Moisture Percent Harvest	ZEAMD 10-24-17 Test Weight lb/bu Harvest
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									13.8 c	16.2 a	59.5 a
2	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	34.3 ab	17.0 a	59.1 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
3	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	34.7 ab	16.8 a	59.2 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
4	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	34.2 ab	16.8 a	59.2 a
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
5	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V2	A	35.8 a	16.8 a	59.2 a
	ENGENIA	5	SL	0.25	lb ae/a	6.4	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V2	A			
	WATER COND NON AMMONIA	100	SL					V2	A			
6	ACURON	3.44	CS	1.29	lb ai/a	48.0	fl oz/a	V2	A	34.1 ab	16.7 a	59.2 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
7	RESICORE	3.29	EC	1.03	lb ai/a	40.0	fl oz/a	V2	A	32.6 ab	17.0 a	59.0 a
	AATREX 4L	4	SC	0.5	lb ai/a	16.0	fl oz/a	V2	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V2	A			
	SUPERB HC	100	SL	0.5	% v/v	0.5	% v/v	V2	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V2	A			
8	HALEX GT	4.389	CS	1.98	lb ai/a	57.6	fl oz/a	V5	B	33.3 ab	16.9 a	59.1 a
	ROUNDUP POWERMAX	4.5	SL	0.186	lb ae/a	5.3	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
9	ARMEZON PRO	5.35	EC	0.67	lb ai/a	16.0	fl oz/a	V5	B	32.9 ab	16.6 a	59.3 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	MSO DREXEL	100	SL	1	% v/v	1.0	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
10	ACURON FLEXI	3.26	ES	0.92	lb ai/a	36.0	fl oz/a	V5	B	30.6 b	17.0 a	59.0 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32.0	fl oz/a	V5	B			
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V5	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V5	B			
LSD P=.05										5.12	0.47	0.37
Standard Deviation										3.48	0.32	0.25
CV										11.0	1.9	0.43
Replicate F										1.853	2.068	1.503
Replicate Prob(F)										0.1686	0.1351	0.2429
Treatment F										13.629	2.128	1.215
Treatment Prob(F)										0.0001	0.0741	0.3373

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,23,22,20,21
Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

Armezon Pro Adjuvant Efficacy and Timing.
Trial ID: 17-24B Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: BASF (C38).
2. Ratings:
   CI 7-14 and 21-35 DA-A, and 7-14 and 21-35 DA-B, rate on different dates in the same column.
   WC 7-14, 21-35, and 42-63 DA-A, and 7-14, 21-35, and 42-63 DA-B, rate on different dates in the same column.
3. Yield.
4. Photos at 21-35 DA-A and again 21-35 DA-B, just A or B each time would be fine.
5. Application B before 12 inch corn.
6. Treatments 4+5 used Impetro at 1% v/v as the water conditioner.
7. Please email Jack again after it is planted to remind him that trt 2+3 are the same, unless we get told before that what to do.

Treatments 2 and 3 are the same; an attempt was made to clarify this replication prior to applicaiton. However, no change was made; trial was sprayed as was given.

Rainfall following application A was 0.87" over 2 days begining 8 days after application.
Rainfall following application B was 0.16" over 1 day begining 69 hours after application.

Improved control of AMATA 42-63 DAT was primarily due to insect feeding (amaranth flea beetle, *Disonycha glabrata*) and the closure of the crop canopy.

Improved control of IPOHE 42-63 DAT was a result of powedery mildew.

Crop injury and weed control ratings in the assessment data are based on days after treatment (DAT), whether that treatment was applied at V2 or V5. The actual days of the ratings and the intervals between application and rating are given below:

7-14 DA-A was rated on 6/19, 13 DA-A
7-14 DA-B was rated on 6/26, 11 DA-B
21-35 DA-A was rated on 6/29, 23 DA-A
21-35 DA-B was rated on 7/11, 26 DA-B
42-63 DA-A was rated on 7/28, 52 DA-A
42-63 DA-B was rated on 8/8, 54 DA-B

Photos available from 6/29.

Plots 201, 301, 401, 202, 302, and 303 were considered missing yield data at harvest due to severe raccoon damage.

The harvest area was 27' x 5'.

The harvest length of plot 203 was 17' and plot 402 was 24'.

Southern Illinois University

Scepter Mixtures for Fall Burndown (Fall 2016).
Trial ID: 17-ARC-5 Location: Agronomy Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.
Official Trial ID:
Conducted Under GEP: No

Trial Status: F one-year/final
Initiation Date: 11-16-16
Completion Date: 5-9-17

Trial Location

City: Carbondale **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62901

Upper Right: 37.69803 -89.24325
Latitude of LL Corner °: 37.69839 N
Longitude of LL Corner °: 89.24265 W USAIL 42.5083389 - 36.9702949
Altitude of LL Corner, Unit: 449.00 FT -87.0199279 - -91.5130844
Angle y-axis to North °: 180.00
GPS Precision: G GPS for trial site

Objectives:
Evaluate the efficacy of Scepter applied as a fall burndown treatment for winter annual broadleaf weed control and grass suppression.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: NONE - Non-crop _
Variety: NON-CROP
Description: NA
Planting Method: NA

Pest Description

Pest 1 Type: W **Code:** CERVU Cerastium vulgatum L.
Common Name: chickweed, mouseear

Pest 2 Type: W **Code:** ERICA Conyza canadensis (L.) Crong.
Common Name: horseweed

Pest 3 Type: W **Code:** LAMAM Lamium amplexicaule L.
Common Name: henbit

Pest 4 Type: W **Code:** RANAB Ranunculus abortivus L.
Common Name: buttercup, smallflower

Pest 5 Type: W **Code:** SENGL Senecio glabellus Poir.
Common Name: groundsel, cressleaf
Description: glyphosate-resistant marestail

Pest 6 Type: W **Code:** STEME Stellaria media (L.) Vill.
Common Name: chickweed, common

Pest 7 Type: W **Code:** THLAR Thlaspi arvense L.
Common Name: pennycress, field

Pest 8 Type: W **Code:** AMBEL Ambrosia artemisiifolia L.
Common Name: ragweed, common

Pest 9 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest10 Type: W **Code:** CHEAL Chenopodium album L.
Common Name: lambsquarters, common

Pest11 Type: W **Code:** HRYGL Hypochoeris glabra
Common Name: False dandelion

Pest12 Type: W **Code:** OXAST Oxalis stricta L.
Common Name: woodsorrel, yellow

Pest13 Type: W **Code:** POANN Ambrosia artemisiifolia L.
Common Name: ragweed, common

Pest14 Type: W **Code:** TTTTT
Common Name: weeds, generally

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Maintenance Product Name
1.	N 177 LB/A, P2O5 69 LB/A, K2O 60 LB/A

Soil Description

Description Name: ARC5_2009
% OM: 1.8 **Texture:** SIL silt loam
pH: 6.8 **Soil Name:** Stoy
CEC: 7.8

Additional Measured Elements

Element	Quantity	Unit
P1	58	lb/A
K	287	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Carbondale IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit

1.	9-2-16					7	DAY	54	89	F
2.	9-5-16	0.19	IN	RAIN	rain	1	DAY			
3.	9-8-16	1.92	IN	RAIN	rain	1	DAY			
4.	9-9-16					7	DAY	53	88	F
5.	9-14-16	1.66	IN	RAIN	rain	4	DAY			
6.	9-16-16					7	DAY	57	87	F
7.	9-23-16					7	DAY	47	88	F
8.	9-25-16	1.5	IN	RAIN	rain	2	DAY			
9.	9-30-16	0.47	IN	RAIN	rain	1	DAY			
10.	9-30-16					7	DAY	51	85	F
11.	10-7-16					7	DAY	41	80	F
12.	10-12-16	0.15	IN	RAIN	rain	3	DAY			
13.	10-14-16					7	DAY	42	85	F
14.	10-19-16	0.38	IN	RAIN	rain	2	DAY			
15.	10-21-16					7	DAY	35	76	F
16.	10-26-16	0.25	IN	RAIN	rain	1	DAY			
17.	10-28-16					7	DAY	42	82	F
18.	11-4-16					7	DAY	29	71	F
19.	11-11-16					7	DAY	24	77	F
20.	11-14-16	0.11	IN	RAIN	rain	1	DAY			
21.	11-18-16	0.35	IN	RAIN	rain	1	DAY			
22.	11-18-16					7	DAY	23	73	F
23.	11-22-16	0.94	IN	RAIN	rain	2	DAY			
24.	11-25-16					7	DAY	27	58	F
25.	11-28-16	1.81	IN	RAIN	rain	1	DAY			
26.	12-2-16					7	DAY	22	49	F
27.	12-4-16	0.48	IN	RAIN	rain	2	DAY			
28.	12-9-16					7	DAY	15	44	F
29.	12-11-16	0.25	IN	RAIN	rain	1	DAY			
30.	12-16-16	0.11	IN	RAIN	rain	2	DAY			
31.	12-16-16					7	DAY	6	65	F
32.	12-23-16	0.55	IN	RAIN	rain	6	DAY			
33.	12-23-16					7	DAY	23	69	F
34.	1-2-17	0.32	IN	RAIN	rain	4	DAY			
35.	1-6-17					7	DAY	1	66	F
36.	1-10-17	2.02	IN	RAIN	rain	7	DAY			
37.	1-13-17					7	DAY	30	62	F
38.	1-19-17	0.17	IN	RAIN	rain	1	DAY			
39.	1-20-17					7	DAY	31	68	F
40.	1-27-17					7	DAY	22	53	F
41.	2-3-17					7	DAY	12	73	F
42.	2-6-17	0.25	IN	RAIN	rain	2	DAY			
43.	2-10-17					7	DAY	23	68	F
44.	2-11-17	0.02	IN	RAIN	rain	1	DAY			
45.	2-17-17					7	DAY	40	73	F
46.	2-18-17	0.22	IN	RAIN	rain	1	DAY			
47.	2-24-17	0.25	IN	RAIN	rain	1	DAY			
48.	2-24-17					7	DAY	20	70	F
49.	2-27-17	0.91	IN	RAIN	rain	1	DAY			
50.	3-3-17					7	DAY	28	73	F
51.	3-6-17	1.68	IN	RAIN	rain	4	DAY			
52.	3-10-17					7	DAY	17	46	F
53.	3-13-17	0.15	IN	RAIN	rain	1	DAY			
54.	3-17-17					7	DAY	28	75	F
55.	3-20-17	1.49	IN	RAIN	rain	11	DAY			
56.	3-24-17					7	DAY	46	72	F
57.	3-31-17					7	DAY	40	72	F
58.	4-3-17	1.41	IN	RAIN	rain	4	DAY			
59.	4-7-17					7	DAY	37	80	F
60.	4-10-17	0.29	IN	RAIN	rain	2	DAY			
61.	4-14-17					7	DAY	56	82	F

62.	4-16-17	0.43	IN	RAIN	rain	2	DAY			
63.	4-21-17	1.35	IN	RAIN	rain	2	DAY			
64.	4-21-17					7	DAY	41	77	F
65.	4-26-17	1.65	IN	RAIN	rain	1	DAY			
66.	4-27-17	0.09	IN	RAIN	rain	1	DAY			
67.	4-28-17	1.21	IN	RAIN	rain	1	DAY			
68.	4-28-17					7	DAY	45	82	F
69.	4-29-17	5.29	IN	RAIN	rain	1	DAY			
70.	4-30-17	2.33	IN	RAIN	rain	1	DAY			
71.	5-3-17	1.42	IN	RAIN	rain	2	DAY			
72.	5-5-17					7	DAY	42	83	F
73.	5-11-17	0.18	IN	RAIN	rain	1	DAY			
74.	5-12-17					7	DAY	50	85	F
75.	5-18-17	2.39	IN	RAIN	rain	3	DAY			

Comment:
Rainfall was recorded 0.10 mile N and provided by Illinois Climate Network.
Air temperature was recorded at SOUTHERN ILLINOIS AIRPORT (93810)
6 miles N and provided by NOAA's National Centers for Environmental Information.
Air temperatures given are summarized as weekly high and low,
detailed weather data is available on request.

Application Description

	A
Application Date:	11-16-16
Appl. Start Time:	12:00
Appl. Stop Time:	13:00
Application Method:	Spray
Application Timing:	FALL
Application Placement:	BROFOL
Applied By:	EJM
Air Temperature, Unit:	74 F
% Relative Humidity:	46
Wind Velocity, Unit:	2 MPH
Wind Direction:	W
Dew Presence (Y/N):	N
Soil Temperature, Unit:	58 F
Soil Moisture:	NORMAL
% Cloud Cover:	0
Next Moisture Occurred On:	11-18-16
Time to Next Moisture, Unit:	2 DAY

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	NONE
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	CERVU W
Stage Majority, Percent:	30
Stage Minimum, Percent:	COT
Stage Maximum, Percent:	50+
Height, Unit:	1.5 IN
Height Minimum, Maximum:	0.25 2
Density, Unit:	1 FT2
Pest 2 Code, Type, Scale:	ERICA W
Stage Majority, Percent:	10
Stage Minimum, Percent:	4
Stage Maximum, Percent:	25
Height, Unit:	1.5 IN

Height Minimum, Maximum:	0.5 1.5
Density, Unit:	0.2 FT2
Pest 3 Code, Type, Scale:	LAMAM W
Stage Majority, Percent:	2
Stage Minimum, Percent:	2
Stage Maximum, Percent:	2
Height, Unit:	0.25 IN
Height Minimum, Maximum:	0.25 0.5
Density, Unit:	0.01 FT2
Pest 4 Code, Type, Scale:	RANAB W
Stage Majority, Percent:	10
Stage Minimum, Percent:	4
Stage Maximum, Percent:	50+
Height, Unit:	4 IN
Height Minimum, Maximum:	0.5 4
Density, Unit:	2 FT2
Pest 5 Code, Type, Scale:	SENGL W
Stage Majority, Percent:	10
Stage Minimum, Percent:	4
Stage Maximum, Percent:	50+
Height, Unit:	4 IN
Height Minimum, Maximum:	0.5 4
Density, Unit:	2 FT2
Pest 6 Code, Type, Scale:	STEME W
Stage Majority, Percent:	50
Stage Minimum, Percent:	COT
Stage Maximum, Percent:	50+
Height, Unit:	1 IN
Height Minimum, Maximum:	0.25 2
Density, Unit:	10 FT2
Pest 7 Code, Type, Scale:	THLAR W
Stage Majority, Percent:	30
Stage Minimum, Percent:	2
Stage Maximum, Percent:	50+
Height, Unit:	2.5 IN
Height Minimum, Maximum:	0.5 2.5
Density, Unit:	0.2 FT2
Pest 8 Code, Type, Scale:	AMBEL W
Stage Majority, Percent:	NA
Pest 9 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	NA
Pest10 Code, Type, Scale:	CHEAL W
Stage Majority, Percent:	NA
Pest11 Code, Type, Scale:	HRYGL W
Stage Majority, Percent:	NA
Pest12 Code, Type, Scale:	OXAST W
Stage Majority, Percent:	NA
Pest13 Code, Type, Scale:	POANN W
Stage Majority, Percent:	NA
Pest14 Code, Type, Scale:	TTTTT W
Stage Majority, Percent:	NA

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Scepter Mixtures for Fall Burndown (Fall 2016).
Trial ID: 17-ARC-5 Location: Agronomy Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.
Official Trial ID:
Conducted Under GEP: No

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	STEME	STEME	CERVU	CERVU
	Pest Code									STEME	STEME	CERVU	CERVU
	Crop Code												
	Rating Date									1-17-17	3-1-17	1-17-17	3-1-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent
	Rating Timing												
	Trt-Eval Interval									62 DA-A	105 DA-A	62 DA-A	105 DA-A
1	NONTREATED									0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	95 cd	99 a	94 bc	85 b
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
3	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A	91 e	99 a	91 cd	69 c
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
4	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	96 bc	99 a	96 ab	99 a
	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
5	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	FALL	A	88 f	99 a	88 d	64 c
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
6	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A	0 h	0 c	0 f	0 e
7	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	94 cde	99 a	94 bc	99 a
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
8	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	95 cd	99 a	93 bc	96 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
9	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 ab	99 a	99 a	99 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
10	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	93 de	99 a	93 bc	96 a
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A				
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
11	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	99 a	99 a
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	1.25	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
12	LEADOFF	33.4	SG			1.5	oz/a	FALL	A	94 cde	99 a	94 bc	96 a
	RESOLVE SG	25	SG	0.01566	lb ai/a			FALL	A				
	HARMONY SG	50	SG	0.01566	lb ai/a			FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	STEME	STEME	CERVU	CERVU
	Pest Code									STEME	STEME	CERVU	CERVU
	Crop Code												
	Rating Date									1-17-17	3-1-17	1-17-17	3-1-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent
	Rating Timing												
	Trt-Eval Interval									62 DA-A	105 DA-A	62 DA-A	105 DA-A
13	BURNDOWN ONLY									97 abc	97 a	96 ab	97 a
	NO RESIDUAL HERBICIDE												
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
14	BURNDOWN ONLY									81 g	45 b	81 e	50 d
	NO RESIDUAL HERBICIDE												
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	LSD P=.05									3.1	5.2	3.8	6.0
	Standard Deviation									2.2	3.6	2.6	4.2
	CV									2.5	4.16	3.08	5.18
	Replicate F									2.014	0.996	1.151	1.685
	Replicate Prob(F)									0.1293	0.4059	0.3419	0.1875
	Treatment F									596.765	276.198	391.802	195.236
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	SENGL	SENGL	RANAB	RANAB
	Pest Code									SENGL	SENGL	RANAB	RANAB
	Crop Code												
	Rating Date									1-17-17	3-1-17	1-17-17	3-1-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent
	Rating Timing												
	Trt-Eval Interval									62 DA-A	105 DA-A	62 DA-A	105 DA-A
1	NONTREATED									0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	53 cd	76 b	53 d	96 bc
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
3	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A	48 d	20 c	40 e	0 d
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
4	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	65 bc	94 a	65 c	98 ab
	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
5	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	FALL	A	61 bc	18 c	61 cd	0 d
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
6	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A	0 e	0 d	0 f	0 d
7	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	68 b	90 a	83 b	99 a
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
8	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	96 a	98 a	95 a	99 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
9	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	99 a	99 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
10	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	94 a	98 a	93 ab	99 a
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A				
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
11	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	98 a	99 a
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	1.25	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
12	LEADOFF	33.4	SG			1.5	oz/a	FALL	A	88 a	93 a	83 b	98 ab
	RESOLVE SG	25	SG	0.01566	lb ai/a			FALL	A				
	HARMONY SG	50	SG	0.01566	lb ai/a			FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				

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Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Southern Illinois University

Pest Code									SENGL	SENGL	RANAB	RANAB
Crop Code												
Rating Date									1-17-17	3-1-17	1-17-17	3-1-17
Rating Type									Control	Control	Control	Control
Rating Unit									Percent	Percent	Percent	Percent
Rating Timing												
Trt-Eval Interval									62 DA-A	105 DA-A	62 DA-A	105 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
13	BURNDOWN ONLY									98 a	98 a	97 a	99 a
	NO RESIDUAL HERBICIDE												
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
14	BURNDOWN ONLY									98 a	97 a	99 a	94 c
	NO RESIDUAL HERBICIDE												
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
LSD P=.05										13.1	13.7	11.5	2.3
Standard Deviation										9.1	9.5	8.0	1.6
CV										12.32	12.68	10.86	2.17
Replicate F										0.347	2.652	0.427	0.334
Replicate Prob(F)										0.7915	0.0634	0.7351	0.8009
Treatment F										41.328	58.697	54.485	2766.742
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001

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Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ERICA	ERICA	ERICA	ERICA
	Pest Code									ERICA	ERICA	ERICA	ERICA
	Crop Code												
	Rating Date									1-17-17	3-1-17	4-12-17	5-9-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent
	Rating Timing												
	Trt-Eval Interval									62 DA-A	105 DA-A	147 DA-A	174 DA-A
1	NONTREATED									0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	30 c	23 b	5 d	5 e
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
3	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A	33 c	94 a	79 ab	73 bc
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
4	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	60 b	96 a	86 ab	78 abc
	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
5	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	FALL	A	60 b	92 a	33 c	33 d
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
6	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A	0 d	0 c	0 d	0 e
7	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	50 bc	0 c	0 d	5 e
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
8	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	99 a	99 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
9	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	98 a	98 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
10	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	94 a	99 a	99 a	99 a
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A				
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
11	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	95 a	93 ab
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	1.25	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
12	LEADOFF	33.4	SG			1.5	oz/a	FALL	A	90 a	96 a	90 ab	90 abc
	RESOLVE SG	25	SG	0.01566	lb ai/a			FALL	A				
	HARMONY SG	50	SG	0.01566	lb ai/a			FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				

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Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ERICA	ERICA	ERICA	ERICA
	Pest Code									ERICA	ERICA	ERICA	ERICA
	Crop Code												
	Rating Date									1-17-17	3-1-17	4-12-17	5-9-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent
	Rating Timing												
	Trt-Eval Interval									62 DA-A	105 DA-A	147 DA-A	174 DA-A
13	BURNDOWN ONLY									98 a	99 a	99 a	99 a
	NO RESIDUAL HERBICIDE												
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
14	BURNDOWN ONLY									45 bc	97 a	69 b	69 c
	NO RESIDUAL HERBICIDE												
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	LSD P=.05									23.6	18.2	22.3	23.3
	Standard Deviation									16.2	12.7	15.5	16.2
	CV									24.55	16.65	23.75	25.12
	Replicate F									0.523	1.578	0.084	0.140
	Replicate Prob(F)									0.6706	0.2116	0.9681	0.9352
	Treatment F									16.705	38.944	27.328	23.660
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001

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Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	LAMAM 1-17-17 Control Percent 62 DA-A	LAMAM 3-1-17 Control Percent 105 DA-A	THLAR 4-12-17 Control Percent 147 DA-A	THLAR 5-9-17 Control Percent 174 DA-A
1	NONTREATED									0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A		60 b	80 b	99 a
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
3	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A		99 a	0 c	13 bc
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
4	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A		98 a	97 a	99 a
	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
5	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	FALL	A		99 a	0 c	23 b
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
6	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A	0 d	0 c	0 c	10 bc
7	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	33 b	55 b	93 a	99 a
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
8	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	95 a	95 a	99 a	99 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
9	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	99 a	99 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
10	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A		96 a	99 a	99 a
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A				
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
11	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	99 a	99 a
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	1.25	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
12	LEADOFF	33.4	SG			1.5	oz/a	FALL	A	90 a	96 a	0 c	99 a
	RESOLVE SG	25	SG	0.01566	lb ai/a			FALL	A				
	HARMONY SG	50	SG	0.01566	lb ai/a			FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				

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Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	LAMAM	LAMAM	THLAR	THLAR
	Pest Code									LAMAM	LAMAM	THLAR	THLAR
	Crop Code												
	Rating Date									1-17-17	3-1-17	4-12-17	5-9-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent
	Rating Timing												
	Trt-Eval Interval									62 DA-A	105 DA-A	147 DA-A	174 DA-A
13	BURNDOWN ONLY									96 a	99 a	0 c	0 c
	NO RESIDUAL HERBICIDE												
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A				
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A				
14	BURNDOWN ONLY									15 c	0 c	0 c	0 c
	NO RESIDUAL HERBICIDE												
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	FALL	A				
	COC	100	SL	1	% v/v	1	% v/v	FALL	A				
	LSD P=.05									9.0	11.2	9.5	17.8
	Standard Deviation									6.0	7.8	6.6	12.2
	CV									9.08	10.23	12.9	18.89
	Replicate F									0.741	0.485	2.209	1.317
	Replicate Prob(F)									0.5440	0.6952	0.1044	0.2921
	Treatment F									199.643	89.910	225.570	56.712
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001

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Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	POAAN 3-1-17	POAAN 4-12-17	POAAN 5-9-17	OXAST 4-12-17	OXAST 5-9-17
	Pest Code									POAAN	POAAN	POAAN	OXAST	OXAST
	Crop Code													
	Rating Date									3-1-17	4-12-17	5-9-17	4-12-17	5-9-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent
	Rating Timing													
	Trt-Eval Interval									105 DA-A	147 DA-A	174 DA-A	147 DA-A	174 DA-A
1	NONTREATED									0	0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	0 d	0 d	0 c	0 c	0 c
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
3	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A	0 d	10 cd	3 c	60 b	0 c
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
4	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	65 c	58 b	18 bc	74 ab	71 b
	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
5	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	FALL	A	0 d	0 d	8 bc	0 c	0 c
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
6	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A	0 d	0 d	23 b	0 c	17 c
7	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	0 d	0 d	10 bc	0 c	13 c
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
8	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	0 d	10 cd	5 bc	60 b	15 c
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
9	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	93 a	81 a	99 a	99 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A					
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
10	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	0 d	20 c	0 c	50 b	23 c
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A					
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
11	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	98 a	92 a	99 a	99 a
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	1.25	pt/a	FALL	A					
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
12	LEADOFF	33.4	SG			1.5	oz/a	FALL	A	92 ab	90 a	91 a	0 c	5 c
	RESOLVE SG	25	SG	0.01566	lb ai/a			FALL	A					
	HARMONY SG	50	SG	0.01566	lb ai/a			FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	POAAN	POAAN	POAAN	OXAST	OXAST
	Pest Code									POAAN	POAAN	POAAN	OXAST	OXAST
	Crop Code													
	Rating Date									3-1-17	4-12-17	5-9-17	4-12-17	5-9-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent
	Rating Timing													
	Trt-Eval Interval									105 DA-A	147 DA-A	174 DA-A	147 DA-A	174 DA-A
13	BURNDOWN ONLY									83 b	0 d	0 c	0 c	94 ab
	NO RESIDUAL HERBICIDE													
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A					
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
14	BURNDOWN ONLY									99 a	0 d	0 c	0 c	0 c
	NO RESIDUAL HERBICIDE													
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	LSD P=.05									9.6	15.0	19.4	34.1	27.9
	Standard Deviation									6.7	10.5	13.5	23.8	19.4
	CV									16.26	36.09	53.46	70.0	57.98
	Replicate F									1.301	0.929	0.175	2.769	3.593
	Replicate Prob(F)									0.2889	0.4366	0.9126	0.0561	0.0234
	Treatment F									197.936	58.003	29.124	11.645	17.865
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001	0.0001

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	HRYGL	HRYGL	HRYGL	AMBTR	AMBTR
	Pest Code									HRYGL	HRYGL	HRYGL	AMBTR	AMBTR
	Crop Code													
	Rating Date									3-1-17	4-12-17	5-9-17	4-12-17	5-9-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent
	Rating Timing													
	Trt-Eval Interval									105 DA-A	147 DA-A	174 DA-A	147 DA-A	174 DA-A
1	NONTREATED									0	0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	0 c	0 d	15 d	97 a	80 a
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
3	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A	94 a	97 a	90 ab	63 b	0 c
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
4	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	86 a	82 a	91 ab	80 ab	37 b
	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
5	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	FALL	A	95 a	85 a	48 c	18 c	0 c
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
6	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A	0 c	0 d	13 d	0 c	0 c
7	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	0 c	60 b	69 bc	95 a	35 b
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
8	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	99 a	91 a	25 bc
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
9	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	99 a	86 ab	29 bc
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A					
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
10	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	87 a	99 a	81 ab	14 bc
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A					
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
11	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	98 a	98 a	94 a	15 bc
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	1.25	pt/a	FALL	A					
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
12	LEADOFF	33.4	SG			1.5	oz/a	FALL	A	92 a	84 a	81 ab	81 ab	42 b
	RESOLVE SG	25	SG	0.01566	lb ai/a			FALL	A					
	HARMONY SG	50	SG	0.01566	lb ai/a			FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	HRYGL	HRYGL	HRYGL	AMBTR	AMBTR
	Pest Code									HRYGL	HRYGL	HRYGL	AMBTR	AMBTR
	Crop Code													
	Rating Date									3-1-17	4-12-17	5-9-17	4-12-17	5-9-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent
	Rating Timing													
	Trt-Eval Interval									105 DA-A	147 DA-A	174 DA-A	147 DA-A	174 DA-A
13	BURNDOWN ONLY									99 a	99 a	99 a	0 c	0 c
	NO RESIDUAL HERBICIDE													
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A					
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A					
14	BURNDOWN ONLY									62 b	20 c	8 d	0 c	0 c
	NO RESIDUAL HERBICIDE													
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	FALL	A					
	COC	100	SL	1	% v/v	1	% v/v	FALL	A					
	LSD P=.05									19.3	18.6	25.0	23.5	33.8
	Standard Deviation									13.5	13.0	17.4	16.3	23.3
	CV									18.97	18.54	24.96	26.9	109.75
	Replicate F									0.969	0.583	0.911	3.594	1.932
	Replicate Prob(F)									0.4181	0.6303	0.4453	0.0249	0.1482
	Treatment F									38.349	34.212	17.406	24.317	4.119
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001	0.0011

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Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	CHEAL	CHEAL	AMBEL	AMBEL	TTTTT	TTTTT
	Pest Code									CHEAL	CHEAL	AMBEL	AMBEL	TTTTT	TTTTT
	Crop Code														
	Rating Date									4-12-17	5-9-17	4-12-17	5-9-17	4-12-17	5-9-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent	Percent
	Rating Timing														
	Trt-Eval Interval									147 DA-A	174 DA-A	147 DA-A	174 DA-A	147 DA-A	174 DA-A
1	NONTREATED									0	0	0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	99 a	63 ab	69 d	25 d
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
3	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A	33 b	33 bc	70 b	0 d	26 e	4 e
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
4	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	40 b	90 a	85 ab	38 bc	88 abc	69 b
	METRIBUZIN 75	75	WG	0.375	lb ai/a	0.5	lb/a	FALL	A						
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
5	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	FALL	A	0 c	37 b	0 c	0 d	15 ef	3 e
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
6	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A	0 c	0 c	0 c	0 d	0 g	1 e
7	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	97 a	0 d	77 cd	43 c
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A						
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
8	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	99 a	94 a	15 cd	87 abc	69 b
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A						
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
9	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	96 a	89 ab	20 cd	96 ab	87 a
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A						
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A						
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
10	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	98 a	93 a	23 cd	86 bc	61 b
	DUAL MAGNUM	7.62	EC	1.27	lb ai/a	1.33	pt/a	FALL	A						
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A						
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
11	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	FALL	A	99 a	96 a	94 a	23 cd	98 a	89 a
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	1.25	pt/a	FALL	A						
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A						
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
12	LEADOFF	33.4	SG			1.5	oz/a	FALL	A	50 b	50 b	97 a	74 a	84 c	61 b
	RESOLVE SG	25	SG	0.01566	lb ai/a			FALL	A						
	HARMONY SG	50	SG	0.01566	lb ai/a			FALL	A						
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	CHEAL	CHEAL	AMBEL	AMBEL	TTTTT	TTTTT
	Pest Code									CHEAL	CHEAL	AMBEL	AMBEL	TTTTT	TTTTT
	Crop Code														
	Rating Date									4-12-17	5-9-17	4-12-17	5-9-17	4-12-17	5-9-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									Percent	Percent	Percent	Percent	Percent	Percent
	Rating Timing														
	Trt-Eval Interval									147 DA-A	174 DA-A	147 DA-A	174 DA-A	147 DA-A	174 DA-A
13	BURNDOWN ONLY									0 c	0 c	0 c	0 d	70 d	3 e
	NO RESIDUAL HERBICIDE														
	2,4-D LV 4	3.8	EC	0.71	lb ae/a	1.5	pt/a	FALL	A						
	CORNERSTONE 5 PLUS	4	SL	0.75	lb ae/a	1.5	pt/a	FALL	A						
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	FALL	A						
14	BURNDOWN ONLY									0 c	0 c	0 c	0 d	11 fg	4 e
	NO RESIDUAL HERBICIDE														
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	2	pt/a	FALL	A						
	COC	100	SL	1	% v/v	1	% v/v	FALL	A						
	LSD P=.05									32.2	35.9	20.1	33.0	11.4	10.7
	Standard Deviation									22.1	24.6	14.0	22.9	7.9	7.5
	CV									40.11	40.28	22.23	117.07	12.78	18.81
	Replicate F									0.388	0.845	1.228	3.889	1.170	1.265
	Replicate Prob(F)									0.7629	0.4823	0.3156	0.0178	0.3346	0.3009
	Treatment F									16.708	11.851	40.091	4.754	79.601	85.363
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0002	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,10,16,23,32,20,28,22,30,24,33,25,31

Southern Illinois University

Scepter Mixtures for Fall Burndown (Fall 2016).
Trial ID: 17-ARC-5 Location: Agronomy Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.
Official Trial ID:
Conducted Under GEP: No

Trial Comments

1. Protocol: AMVAC (16C05H061).
2. Ratings: WC by species in early January, early March, early April, and early May (roughly 60, 120, 150, and 180 DA-A).
   Weed density by species can be made as a measure of weed control if preferred, but only recommended as a measure of residual control when weeds are actively emerging in the spring.
   That is to say if you get a flush of an important weed, make some counts to quantify differences.
3. No yield (non-crop).
4. Photos in mid to late spring would be greatly appreciated.
5. Provide a written description and assessment of any difficulties, problems or unusual occurrences during the conduct of the trial. Examples include deviations from protocol and application problems or errors.
6. Report as ARM file by June 2, 2017, with map and GPS of SW and NE corners of the trial.
   See original AMVAC protocol for complete reporting details.
7. Must be no-till.

Weeds sizes (diameter) at application for rosette stages of of winter annual weeds:
SENGL and RANAB were up to 10 inch in diameter.
ERICA was up to 6 inch in diameter.

Rainfall following the FALL (A) application was 0.35 inch over 1 day beginning 2 days later.

Ratings on 1-17-17 were difficult for ERICA and LAMAM due to low populations and small sizes at application, combined with high population and larger sizes of other weeds.
Missing data for some weeds on 4-12-17 was due to competition from weeds that were not controlled.
Ratings on 5-9-17, for residual control of newly emerging weeds, were confounded by competition from weeds that were not controlled.
AMBTR control on 5-9-17 was chlorosis and necrosis of newly emerging plants.
Lack of complete control ERICA on 5-9-17 was minor regrowth of otherwise controlled plants, there was no new emergence of ERICA in the spring in any plots.

Daily weather has been provided as a separate PDF file.

Southern Illinois University

Scepter Tank-Mixes for Early Preplant Applications in No-Till Soybean.
Trial ID: 17-5B Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 4-24-17
Completion Date: 6-19-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Upper Left: 38.516107 89.838562 **Upper Right:** 38.515752 89.838546
Latitude of LL Corner °: 38.51611 N **Lower Right:** 38.51577 89.838804
Longitude of LL Corner °: 89.838797 W
Altitude of LL Corner, Unit: 435.00 FT
Angle y-axis to North °: 90.00
GPS Precision: G GPS for trial site

Objectives:
Evalaute fit and performance of Scepter combinations applied early preplant for control of winter annuals and early summer annual weeds as well as crop safety in soybeans.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
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Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 39X7 **BBCH Scale:** BSOY
Description: RR2X **Maturity Group:** III
Planting Date: 5-16-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 69 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** CAPBP Capsella bursa-pastoris(L.)M
Common Name: shepherdspurse

Pest 4 Type: W **Code:** CARPA Cardamine parviflora L.
Common Name: bittercress, smallflowered

Pest 5 Type: W **Code:** ERICA Conyza canadensis (L.) Crong.
Common Name: horseweed

Pest 6 Type: W **Code:** STEME Stellaria media (L.) Vill.
Common Name: chickweed, common

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 26 FT **Total Plot Length:** 26 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 50LB/A, K2O150 LB/A

Soil Description

Description Name: 05B_2013
% OM: 2.4 **Texture:** SIL silt loam
pH: 6.6 **Soil Name:** Winfield
CEC: 7

Additional Measured Elements

Element	Quantity	Unit
P1	75	lb/A
K	347	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	3-23-17	0.14	IN	RAIN	rain	1	DAY	36.7	60.4	F
2.	3-24-17	0.07	IN	RAIN	rain	1	DAY	49.7	77.6	F
3.	3-25-17	0.38	IN	RAIN	rain	1	DAY	54.2	65.7	F
4.	3-26-17	0	IN	RAIN	rain	1	DAY	46.8	62.9	F
5.	3-27-17	0.25	IN	RAIN	rain	1	DAY	45.8	58.3	F
6.	3-28-17	0	IN	RAIN	rain	1	DAY	53.4	59.8	F
7.	3-29-17	0	IN	RAIN	rain	1	DAY	46.1	68.1	F
8.	3-30-17	1.06	IN	RAIN	rain	1	DAY	50.3	72.8	F
9.	3-31-17	0.04	IN	RAIN	rain	1	DAY	44.4	51.8	F
10.	4-1-17	0	IN	RAIN	rain	1	DAY	38.8	59.5	F
11.	4-2-17	0.02	IN	RAIN	rain	1	DAY	44.5	67	F
12.	4-3-17	0.75	IN	RAIN	rain	1	DAY	57.4	70	F
13.	4-4-17	0	IN	RAIN	rain	1	DAY	54.1	66.4	F
14.	4-5-17	1.03	IN	RAIN	rain	1	DAY	40.8	61.6	F
15.	4-6-17	0.05	IN	RAIN	rain	1	DAY	42.8	58.1	F
16.	4-7-17	0	IN	RAIN	rain	1	DAY	40.7	60.8	F
17.	4-8-17	0	IN	RAIN	rain	1	DAY	41.3	73.7	F
18.	4-9-17	0	IN	RAIN	rain	1	DAY	60.9	78.8	F
19.	4-10-17	0.12	IN	RAIN	rain	1	DAY	58.5	77.4	F
20.	4-11-17	0	IN	RAIN	rain	1	DAY	43.3	61.6	F
21.	4-12-17	0	IN	RAIN	rain	1	DAY	38.8	73.1	F
22.	4-13-17	0	IN	RAIN	rain	1	DAY	48	81.5	F
23.	4-14-17	0.21	IN	RAIN	rain	1	DAY	57.5	81.9	F
24.	4-15-17	0	IN	RAIN	rain	1	DAY	63.8	83.3	F
25.	4-16-17	0	IN	RAIN	rain	1	DAY	57	75.5	F
26.	4-17-17	0	IN	RAIN	rain	1	DAY	49.6	68.3	F
27.	4-18-17	0	IN	RAIN	rain	1	DAY	49.7	77.9	F
28.	4-19-17	0	IN	RAIN	rain	1	DAY	58.8	86.4	F
29.	4-20-17	0	IN	RAIN	rain	1	DAY	58	82.5	F
30.	4-21-17	0.12	IN	RAIN	rain	1	DAY	49.4	59.4	F
31.	4-22-17	0.26	IN	RAIN	rain	1	DAY	43.1	59.1	F
32.	4-23-17	0	IN	RAIN	rain	1	DAY	40.5	72.9	F
33.	4-24-17	0	IN	RAIN	rain	1	DAY	40.7	76.7	F
34.	4-25-17	0	IN	RAIN	rain	1	DAY	47.3	80.1	F
35.	4-26-17	1.23	IN	RAIN	rain	1	DAY	51.4	75.5	F
36.	4-27-17	0.21	IN	RAIN	rain	1	DAY	48.7	62.2	F
37.	4-28-17	0.22	IN	RAIN	rain	1	DAY	52.5	60.2	F
38.	4-29-17	2.17	IN	RAIN	rain	1	DAY	57.5	79.1	F
39.	4-30-17	2.4	IN	RAIN	rain	1	DAY	54.8	71.7	F
40.	5-1-17	0	IN	RAIN	rain	1	DAY	47.8	58.4	F
41.	5-2-17	0	IN	RAIN	rain	1	DAY	46.3	70.5	F
42.	5-3-17	0.96	IN	RAIN	rain	1	DAY	46.9	57	F
43.	5-4-17	1.75	IN	RAIN	rain	1	DAY	47.6	52.1	F
44.	5-5-17	0	IN	RAIN	rain	1	DAY	46.3	66.9	F
45.	5-6-17	0	IN	RAIN	rain	1	DAY	45.7	68.3	F
46.	5-7-17	0	IN	RAIN	rain	1	DAY	43.5	74.7	F
47.	5-8-17	0	IN	RAIN	rain	1	DAY	50	83.1	F

48.	5-9-17	0	IN	RAIN	rain	1	DAY	59.6	88.2	F
49.	5-10-17	0.05	IN	RAIN	rain	1	DAY	62.6	86.3	F
50.	5-11-17	0.11	IN	RAIN	rain	1	DAY	61.9	75	F
51.	5-12-17	0	IN	RAIN	rain	1	DAY	55.1	73.3	F
52.	5-13-17	0	IN	RAIN	rain	1	DAY	50.8	82.2	F
53.	5-14-17	0	IN	RAIN	rain	1	DAY	55.1	84.1	F
54.	5-15-17	0	IN	RAIN	rain	1	DAY	57.3	85.9	F
55.	5-16-17	0	IN	RAIN	rain	1	DAY	63.5	86.6	F
56.	5-17-17	0	IN	RAIN	rain	1	DAY	68.5	83.6	F
57.	5-18-17	0	IN	RAIN	rain	1	DAY	68.2	88.5	F
58.	5-19-17	0.14	IN	RAIN	rain	1	DAY	58.6	84.4	F
59.	5-20-17	1.32	IN	RAIN	rain	1	DAY	58.2	79.1	F
60.	5-21-17	0	IN	RAIN	rain	1	DAY	53.1	71.5	F
61.	5-22-17	0	IN	RAIN	rain	1	DAY	50.2	76.1	F
62.	5-23-17	0.1	IN	RAIN	rain	1	DAY	56.8	73.8	F
63.	5-24-17	0	IN	RAIN	rain	1	DAY	53.9	68.5	F
64.	5-25-17	0	IN	RAIN	rain	1	DAY	54.6	76.7	F
65.	5-26-17	0	IN	RAIN	rain	1	DAY	55.9	81	F
66.	5-27-17	0.3	IN	RAIN	rain	1	DAY	64.2	83.6	F
67.	5-28-17	0	IN	RAIN	rain	1	DAY	62.8	79.4	F
68.	5-29-17	0.06	IN	RAIN	rain	1	DAY	59.8	86.2	F
69.	5-30-17	0	IN	RAIN	rain	1	DAY	56.4	81.8	F
70.	5-31-17	0	IN	RAIN	rain	1	DAY	55	82.9	F
71.	6-1-17	0	IN	RAIN	rain	1	DAY	56.7	83.8	F
72.	6-2-17	0	IN	RAIN	rain	1	DAY	60	90.9	F
73.	6-3-17	0	IN	RAIN	rain	1	DAY	64.1	89.5	F
74.	6-4-17	0.26	IN	RAIN	rain	1	DAY	67.8	87.6	F
75.	6-5-17	0.15	IN	RAIN	rain	1	DAY	68.1	90.2	F
76.	6-6-17	0	IN	RAIN	rain	1	DAY	61.7	81.4	F
77.	6-7-17	0	IN	RAIN	rain	1	DAY	53.9	79.9	F
78.	6-8-17	0	IN	RAIN	rain	1	DAY	52.3	81.1	F
79.	6-9-17	0	IN	RAIN	rain	1	DAY	54.9	85.6	F
80.	6-10-17	0	IN	RAIN	rain	1	DAY	58.8	86.2	F
81.	6-11-17	0	IN	RAIN	rain	1	DAY	62.4	90.1	F
82.	6-12-17	0	IN	RAIN	rain	1	DAY	65.9	92.6	F
83.	6-13-17	0	IN	RAIN	rain	1	DAY	75	93.7	F
84.	6-14-17	0.16	IN	RAIN	rain	1	DAY	68.3	92.1	F
85.	6-15-17	0.94	IN	RAIN	rain	1	DAY	66.5	88.6	F
86.	6-16-17	0	IN	RAIN	rain	1	DAY	68.8	88.5	F
87.	6-17-17	0.01	IN	RAIN	rain	1	DAY	71.2	88.2	F
88.	6-18-17	0.66	IN	RAIN	rain	1	DAY	65.2	82.9	F
89.	6-19-17	0	IN	RAIN	rain	1	DAY	63.4	86.1	F
90.	6-20-17	0	IN	RAIN	rain	1	DAY	60.6	89	F
91.	6-21-17	0	IN	RAIN	rain	1	DAY	68.2	92.6	F
92.	6-22-17	0.01	IN	RAIN	rain	1	DAY	71.7	83.4	F
93.	6-23-17	0.03	IN	RAIN	rain	1	DAY	68.8	86.9	F
94.	6-24-17	0	IN	RAIN	rain	1	DAY	56.8	79.2	F
95.	6-25-17	0	IN	RAIN	rain	1	DAY	53.7	83.2	F
96.	6-26-17	0	IN	RAIN	rain	1	DAY	51.4	79.5	F
97.	6-27-17	0	IN	RAIN	rain	1	DAY	51.8	81.7	F
98.	6-28-17	0	IN	RAIN	rain	1	DAY	57	86.6	F
99.	6-29-17	0	IN	RAIN	rain	1	DAY	68.2	91.4	F
100.	6-30-17	0.05	IN	RAIN	rain	1	DAY	69.6	85.6	F

Application Description

	A
Application Date:	4-24-17
Appl. Start Time:	15:30
Appl. Stop Time:	16:00
Application Method:	Spray
Application Timing:	14EPP
Application Placement:	BROFOL
Applied By:	RFK
Air Temperature, Unit:	76 F
% Relative Humidity:	26
Wind Velocity, Unit:	8 MPH
Wind Direction:	E
Dew Presence (Y/N):	N
Soil Temperature, Unit:	59 F
Soil Moisture:	AN
% Cloud Cover:	0
Next Moisture Occurred On:	4-25-17
Time to Next Moisture, Unit:	17 HR

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ABUTH W
Pest 2 Code, Type, Scale:	AMATA W
Pest 3 Code, Type, Scale:	CAPBP W
Stage Majority, Percent:	10+
Stage Minimum, Percent:	10+
Stage Maximum, Percent:	10+
Height, Unit:	10 IN
Height Minimum, Maximum:	6 12
Density, Unit:	3 FT2
Pest 4 Code, Type, Scale:	CARPA W
Stage Majority, Percent:	10+
Stage Minimum, Percent:	10+
Stage Maximum, Percent:	10+
Height, Unit:	10 IN
Height Minimum, Maximum:	6 12
Density, Unit:	1 FT2
Pest 5 Code, Type, Scale:	ERICA W
Stage Majority, Percent:	10
Stage Minimum, Percent:	10
Stage Maximum, Percent:	10
Height, Unit:	6 IN
Height Minimum, Maximum:	2 10
Density, Unit:	1 FT2
Pest 6 Code, Type, Scale:	STEME W
Stage Majority, Percent:	10
Stage Minimum, Percent:	10
Stage Maximum, Percent:	10
Height, Unit:	6 IN
Height Minimum, Maximum:	4 6
Density, Unit:	3 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Boom Length, Unit:	7.5 FT
Incorporation Equip.:	NA
Spray Volume, Unit:	15 GPA

Southern Illinois University

Scepter Tank-Mixes for Early Preplant Applications in No-Till Soybean.
Trial ID: 17-5B Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Pest Code											CAPBP	CARPA
Crop Code												
Rating Date											5-8-17	5-8-17
Rating Type											Control	Control
Rating Unit											0-99	0-99
Rating Timing											0 DAPP	0 DAPP
Trt-Eval Interval											14 DA-A	14 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED										0	0
2	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
3	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
4	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
5	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A			
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
6	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
7	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
8	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	ENVIVE	41.3	WG			2.5	oz/a	14DBP	A			
	CLASSIC	25	WG	0.01428	lb ai/a			14DBP	A			
	HARMONY SG	50	SG	0.00459	lb ai/a			14DBP	A			
	VALOR SX	51	WG	0.04536	lb ai/a			14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
9	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 20,21,8,6,5,7,12,16 because error mean square = 0.

Pest Code												CAPBP	CARPA
Crop Code													
Rating Date												5-8-17	5-8-17
Rating Type												Control	Control
Rating Unit												0-99	0-99
Rating Timing												0 DAPP	0 DAPP
Trt-Eval Interval												14 DA-A	14 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
10	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A			99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A				
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A				
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
11	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A			99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A				
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A				
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A				
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
12	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A			99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A				
	TRIVENCE	61.3	WG			10	oz/a	14DBP	A				
	CLASSIC	25	WG	0.02438	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.08	lb ai/a			14DBP	A				
	SENCOR	75	WG	0.2788	lb ai/a			14DBP	A				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
13	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A			99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A				
	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	14DBP	A				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
14	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A			99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A				
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
15	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A			99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A				
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A				
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
16	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A			99 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A				
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A				
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A				
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A				
LSD P=.05										.	.	.	.
Standard Deviation										.	.	0.0	0.0
CV										.	.	0.0	0.0
Replicate F												0.000	0.000
Replicate Prob(F)												1.0000	1.0000
Treatment F												0.000	0.000
Treatment Prob(F)												1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 20,21,8,6,5,7,12,16 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ERICA	ERICA	ERICA	ERICA	STEME
	Pest Code									ERICA	ERICA	ERICA	ERICA	STEME
	Crop Code													
	Rating Date									5-8-17	5-22-17	6-5-17	6-19-17	5-8-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									0 DAPP	14 DAPP	28 DAPP	42 DAPP	0 DAPP
	Trt-Eval Interval									14 DA-A	28 DA-A	42 DA-A	56 DA-A	14 DA-A
1	NONTREATED									0	0	0	0	0
2	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	96 abc	96 ab	96 ab	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
3	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	95 a-d	95 ab	95 ab	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
4	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	92 c-f	91 abc	91 abc	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A					
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
5	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	99 a	96 ab	96 ab	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A					
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A					
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
6	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	88 ef	83 de	83 de	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
7	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	87 f	80 e	80 e	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A					
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
8	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	92 c-f	85 de	85 de	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	ENVIVE	41.3	WG			2.5	oz/a	14DBP	A					
	CLASSIC	25	WG	0.01428	lb ai/a			14DBP	A					
	HARMONY SG	50	SG	0.00459	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.04536	lb ai/a			14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
9	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	96 abc	96 ab	96 ab	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A					
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A					
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 20,21,8,6,5,7,12,16 because error mean square = 0.

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ERICA	ERICA	ERICA	ERICA	STEME
	Pest Code									ERICA	ERICA	ERICA	ERICA	STEME
	Crop Code													
	Rating Date									5-8-17	5-22-17	6-5-17	6-19-17	5-8-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									0 DAPP	14 DAPP	28 DAPP	42 DAPP	0 DAPP
	Trt-Eval Interval									14 DA-A	28 DA-A	42 DA-A	56 DA-A	14 DA-A
10	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	88 ef	87 cd	87 cd	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A					
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
11	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	90 def	87 cd	87 cd	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A					
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A					
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
12	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	97 ab	97 a	97 a	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	TRIVENCE	61.3	WG			10	oz/a	14DBP	A					
	CLASSIC	25	WG	0.02438	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.08	lb ai/a			14DBP	A					
	SENCOR	75	WG	0.2788	lb ai/a			14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
13	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	88 ef	87 cd	87 cd	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
14	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	94 a-d	96 ab	96 ab	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
15	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	93 b-e	91 bc	91 bc	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A					
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
16	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	97 abc	93 ab	93 ab	99 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A					
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A					
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A					
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A					
	LSD P=.05									.	5.5	5.9	5.9	.
	Standard Deviation									0.0	3.3	3.5	3.5	0.0
	CV									0.0	3.56	3.91	3.91	0.0
	Replicate F									0.000	0.185	10.382	10.382	0.000
	Replicate Prob(F)									1.0000	0.8321	0.0004	0.0004	1.0000
	Treatment F									0.000	4.083	7.254	7.254	0.000
	Treatment Prob(F)									1.0000	0.0008	0.0001	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 20,21,8,6,5,7,12,16 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ABUTH	ABUTH	ABUTH	AMATA	AMATA	AMATA
	Pest Code									ABUTH	ABUTH	ABUTH	AMATA	AMATA	AMATA
	Crop Code														
	Rating Date									5-22-17	6-5-17	6-19-17	5-22-17	6-5-17	6-19-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									14 DAPP	28 DAPP	42 DAPP	14 DAPP	28 DAPP	42 DAPP
	Trt-Eval Interval									28 DA-A	42 DA-A	56 DA-A	28 DA-A	42 DA-A	56 DA-A
1	NONTREATED									0	0	0	0	0	0
2	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	63 a	60 b	60 b	0 d	0 d	0 d
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
3	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	99 a	99 a	63 bc	17 d	0 d
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
4	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	96 a	99 a	99 a	96 ab	0 d	0 d
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A						
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
5	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	66 a	96 a	96 a	60 c	0 d	0 d
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A						
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A						
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
6	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	96 a	96 a	99 a	53 bc	45 bc
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
7	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	99 a	99 a	99 a	82 ab	58 abc
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
8	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	96 a	96 a	96 a	99 a	0 d	0 d
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	ENVIVE	41.3	WG			2.5	oz/a	14DBP	A						
	CLASSIC	25	WG	0.01428	lb ai/a			14DBP	A						
	HARMONY SG	50	SG	0.00459	lb ai/a			14DBP	A						
	VALOR SX	51	WG	0.04536	lb ai/a			14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
9	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	66 a	98 a	98 a	99 a	73 ab	50 bc
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A						
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 20,21,8,6,5,7,12,16 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ABUTH	ABUTH	ABUTH	AMATA	AMATA	AMATA
	Pest Code									ABUTH	ABUTH	ABUTH	AMATA	AMATA	AMATA
	Crop Code														
	Rating Date									5-22-17	6-5-17	6-19-17	5-22-17	6-5-17	6-19-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									14 DAPP	28 DAPP	42 DAPP	14 DAPP	28 DAPP	42 DAPP
	Trt-Eval Interval									28 DA-A	42 DA-A	56 DA-A	28 DA-A	42 DA-A	56 DA-A
10	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	66 a	66 ab	66 ab	99 a	85 ab	75 ab
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A						
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
11	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	96 a	96 a	99 a	77 ab	48 bc
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A						
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
12	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	99 a	99 a	99 a	82 ab	50 bc
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	TRIVENCE	61.3	WG			10	oz/a	14DBP	A						
	CLASSIC	25	WG	0.02438	lb ai/a			14DBP	A						
	VALOR SX	51	WG	0.08	lb ai/a			14DBP	A						
	SENCOR	75	WG	0.2788	lb ai/a			14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
13	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	96 a	92 ab	92 ab	96 ab	87 ab	77 ab
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
14	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	28 a	0 c	0 c	99 a	90 a	90 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
15	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	96 a	91 ab	91 ab	83 abc	33 cd	33 c
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
16	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A	99 a	99 a	99 a	99 a	17 d	0 d
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A						
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A						
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A						
	LSD P=.05									54.2	34.6	34.6	34.5	33.5	31.9
	Standard Deviation									32.4	20.7	20.7	20.6	20.0	19.1
	CV									38.34	24.12	24.12	24.02	43.2	54.38
	Replicate F									0.592	0.425	0.425	1.536	0.349	2.891
	Replicate Prob(F)									0.5602	0.6582	0.6582	0.2328	0.7082	0.0722
	Treatment F									1.314	4.971	4.971	5.212	10.556	8.808
	Treatment Prob(F)									0.2605	0.0002	0.0002	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 20,21,8,6,5,7,12,16 because error mean square = 0.

Pest Code											GLXMA	GLXMA
Crop Code											GLXMA	GLXMA
Rating Date											6-5-17	6-19-17
Rating Type											Injury	Injury
Rating Unit											0-99	0-99
Rating Timing											28 DAPP	42 DAPP
Trt-Eval Interval											42 DA-A	56 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED										0 a	0 a
2	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
3	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
4	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
5	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A			
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
6	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
7	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
8	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	ENVIVE	41.3	WG			2.5	oz/a	14DBP	A			
	CLASSIC	25	WG	0.01428	lb ai/a			14DBP	A			
	HARMONY SG	50	SG	0.00459	lb ai/a			14DBP	A			
	VALOR SX	51	WG	0.04536	lb ai/a			14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
9	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 20,21,8,6,5,7,12,16 because error mean square = 0.

Pest Code											GLXMA	GLXMA
Crop Code											GLXMA	GLXMA
Rating Date											6-5-17	6-19-17
Rating Type											Injury	Injury
Rating Unit											0-99	0-99
Rating Timing											28 DAPP	42 DAPP
Trt-Eval Interval											42 DA-A	56 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
10	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A			
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
11	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	VALOR SX	51	WG	0.081	lb ai/a	2.53	oz/a	14DBP	A			
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
12	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	TRIVENCE	61.3	WG			10	oz/a	14DBP	A			
	CLASSIC	25	WG	0.02438	lb ai/a			14DBP	A			
	VALOR SX	51	WG	0.08	lb ai/a			14DBP	A			
	SENCOR	75	WG	0.2788	lb ai/a			14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
13	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
14	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
15	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
16	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	14DBP	A		0 a	0 a
	2,4-D LV 4	3.8	EC	0.475	lb ae/a	16	fl oz/a	14DBP	A			
	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	14DBP	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	14DBP	A			
	METRIBUZIN 75	75	WG	0.28	lb ai/a	0.372	lb/a	14DBP	A			
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	14DBP	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	14DBP	A			
LSD P=.05											.	.
Standard Deviation											0.0	0.0
CV											0.0	0.0
Replicate F											0.000	0.000
Replicate Prob(F)											1.0000	1.0000
Treatment F											0.000	0.000
Treatment Prob(F)											1.0000	1.0000

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Southern Illinois University

Scepter Tank-Mixes for Early Preplant Applications in No-Till Soybean.
Trial ID: 17-5B Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: AMVAC (17C05H044).
2. Ratings:
   CI 14 and 28 DAP.
   WC 0, 14, 28, and 42 DAP rate again at 56 DAP if some plots are still holding.
   Rate burndown at 0 DAP and then residual weed control.
3. Yield not requested.
4. Target winter annual weeds and any early emerging summer annuals for burndown and rate summer annual weeds for residual as they emerge.
   Treatment 2 is burndown without residual, best comparison when rating residual WC.
5. Provide complete weather for the season.
   Report by August 31.

Rainfall following the 14 DBP application A was was 11.2" over 10 days begining 17 hours after application.

Ratings on 5-8-17 at 14 DA-A were at the planned planting date (0 DAPP); planting was delayed due to wet soil conditions.
Ratings on 5-22-17 at 28 DA-A were 14 days after the planned planting date (14 DAPP); planting was delayed due to wet soil conditions.

Southern Illinois University

Fierce Plus Dicamba Burndown for No-Till Soybean.
Trial ID: 17-DSO-VAL-BD Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 4-24-17
Completion Date: 10-6-17

Trial Location

City: De Soto **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62924

Latitude of LL Corner °: 37.796173 N
Longitude of LL Corner °: 89.26214 W
Altitude of LL Corner, Unit: 380.00 FT
Angle y-axis to North °: 90.00
GPS Precision: G GPS for trial site

Objectives:
Evaluate the benefit of including Valor, Fierce or Fierce MTZ to an Xtend herbicide program for residual control of glyphosate-resistant waterhemp.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 39X7 **BBCH Scale:** BSOY
Description: RR2X

Planting Date: 5-15-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 69 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ERICA Conyza canadensis (L.) Crong.
Common Name: horseweed
Description: glyphosate-resistant marestail

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common
Description: glyphosate-resistant waterhemp

Pest 3 Type: W **Code:** SIDSP Sida spinosa L.
Common Name: sida, prickly

Pest 4 Type: W **Code:** GGGAN
Common Name: grasses, annual
Description: fall panicum, giant foxtail, goosegrass

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	NON-CROP	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: DSO_west_2016
% Sand: 15.4 **% OM:** 1.96 **Texture:** SIL silt loam
% Silt: 64.7 **pH:** 7.1 **Soil Name:** Okaw
% Clay: 19.9 **CEC:** 7.91

Additional Measured Elements

Element	Quantity	Unit
P1	52	lb/A
K	278	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: SOUTHERN IL AIRPORT (93810) **Distance, Unit:** 1.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	40	72	F
2.	4-3-17	0.47	IN	RAIN	rain	1	DAY			
3.	4-5-17	0.92	IN	RAIN	rain	1	DAY			
4.	4-6-17	0.06	IN	RAIN	rain	1	DAY			
5.	4-8-17					7	DAY	37	82	F
6.	4-10-17	0.09	IN	RAIN	rain	2	DAY			
7.	4-15-17					7	DAY	50	81	F
8.	4-16-17	0.85	IN	RAIN	rain	3	DAY			
9.	4-20-17	1.6	IN	RAIN	rain	3	DAY			
10.	4-22-17					7	DAY	41	77	F
11.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
12.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
13.	4-29-17					7	DAY	45	82	F
14.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
15.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
16.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
17.	5-6-17					7	DAY	42	83	F
18.	5-13-17					7	DAY	50	85	F
19.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
20.	5-20-17					7	DAY	51	84	F
21.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
22.	5-27-17					7	DAY	56	87	F
23.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
24.	6-3-17					7	DAY	54	87	F
25.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
26.	6-10-17					7	DAY	57	92	F
27.	6-15-17	0.13	IN	RAIN	rain	1	DAY			
28.	6-17-17					7	DAY	61	90	F
29.	6-18-17	0.8	IN	RAIN	rain	1	DAY			
30.	6-22-17	1.02	IN	RAIN	rain	2	DAY			
31.	6-24-17					7	DAY	54	87	F
32.	6-30-17	0.02	IN	RAIN	rain	1	DAY			
33.	7-1-17					7	DAY	63	90	F
34.	7-5-17	0.9	IN	RAIN	rain	3	DAY			
35.	7-8-17					7	DAY	67	93	F
36.	7-13-17	0.69	IN	RAIN	rain	2	DAY			
37.	7-15-17					7	DAY	61	95	F
38.	7-17-17	0.56	IN	RAIN	rain	1	DAY			
39.	7-22-17					7	DAY	69	94	F
40.	7-23-17	0.03	IN	RAIN	rain	1	DAY			
41.	7-27-17	0.02	IN	RAIN	rain	1	DAY			
42.	7-29-17					7	DAY	55	89	F
43.	8-1-17	0.06	IN	RAIN	rain	1	DAY			
44.	8-3-17	0.03	IN	RAIN	rain	1	DAY			
45.	8-5-17					7	DAY	50	78	F
46.	8-6-17	1.35	IN	RAIN	rain	2	DAY			
47.	8-11-17	0.97	IN	RAIN	rain	1	DAY			
48.	8-12-17					7	DAY	56	88	F
49.	8-14-17	0.01	IN	RAIN	rain	1	DAY			
50.	8-16-17	0.69	IN	RAIN	rain	2	DAY			
51.	8-19-17					7	DAY	66	90	F

52.	8-26-17					7	DAY	55	85	F
53.	8-28-17	0.1	IN	RAIN	rain	1	DAY			
54.	9-2-17					7	DAY	42	90	F
55.	9-4-17	0.05	IN	RAIN	rain	1	DAY			
56.	9-9-17					7	DAY	46	85	F
57.	9-12-17	0.15	IN	RAIN	rain	2	DAY			
58.	9-16-17					7	DAY	60	87	F
59.	9-17-17	1.57	IN	RAIN	rain	3	DAY			
60.	9-23-17					7	DAY	48	90	F
61.	9-30-17					7	DAY	43	83	F
62.	10-7-17					7	DAY	47	84	F

Application Description

	A	B
Application Date:	4-24-17	6-2-17
Appl. Start Time:	15:15	10:15
Appl. Stop Time:	15:40	10:40
Interval to Prev. Appl., Unit:		39 DAYS
Application Method:	Spray	Spray
Application Timing:	3-4"MT	2"WH
Application Placement:	BROFOL	BROFOL
Applied By:	RLS	CC
Air Temperature, Unit:	74 F	83 F
% Relative Humidity:	34	55
Wind Velocity, Unit:	2 MPH	4 MPH
Wind Direction:	E	SE
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	71 F	80 F
Soil Moisture:	ABNOR	NORMAL
% Cloud Cover:	0	50
Next Moisture Occurred On:	4-26-17	6-4-17
Time to Next Moisture, Unit:	46 HR	51 HR

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	VC
Stage Minimum, Percent:		VE
Stage Maximum, Percent:		VC
Height, Unit:		4 IN
Height Minimum, Maximum:		2.5 5

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ERICA W	ERICA W
Stage Majority, Percent:	30	NA
Stage Minimum, Percent:	8	
Stage Maximum, Percent:	50	
Height, Unit:	3.5 IN	
Height Minimum, Maximum:	0.75 10	
Density, Unit:	10 FT2	
Pest 2 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:	NA	6
Stage Minimum, Percent:		4
Stage Maximum, Percent:		8
Height, Unit:		2 IN
Height Minimum, Maximum:		1.5 4
Density, Unit:		11 FT2
Pest 3 Code, Type, Scale:	SIDSP W	SIDSP W
Stage Majority, Percent:	COTY	5
Stage Minimum, Percent:	COTY	3
Stage Maximum, Percent:	1	9
Height, Unit:	0.2 IN	2 IN
Height Minimum, Maximum:	0.2 0.3	0.5 3.5
Density, Unit:	5 FT2	9 FT2
Pest 4 Code, Type, Scale:	GGGAN W	GGGAN W

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	TTI	TTI
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

Fierce Plus Dicamba Burndown for No-Till Soybean.
Trial ID: 17-DSO-VAL-BD Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code										ERICA	ERICA	ERICA
	Crop Code									GLXMA			
	Rating Date									6-12-17	5-8-17	5-16-17	6-2-17
	Rating Type									Injury	Burndown	Burndown	Burndown
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									49 DA-A	7 DBP	1 DAP	39 DA-A
	Trt-Eval Interval									10 DA-B	14 DA-A	22 DA-A	0 DA-B
1	NONTREATED									0	0	0	0
2	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	9 a	90 c	94 a	95 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B				
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B				
3	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	7 a	93 ab	95 a	97 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A				
	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	3-4"MT	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B				
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B				
4	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	6 a	92 abc	96 a	93 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A				
	VALOR EZ	4	SC	0.078	lb ai/a	2.5	fl oz/a	3-4"MT	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B				
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B				
5	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	7 a	92 abc	95 a	93 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A				
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	3-4"MT	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B				
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B				
6	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	7 a	93 ab	97 a	95 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A				
	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	3-4"MT	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B				
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B				
7	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	7 a	94 a	96 a	93 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A				
	VALOR EZ	4	SC	0.078	lb ai/a	2.5	fl oz/a	3-4"MT	A				
	SENCOR 4	4	SC	0.125	lb ai/a	4	fl oz/a	3-4"MT	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B				
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B				
8	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	4 a	90 c	95 a	96 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A				
	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	3-4"MT	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B				
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA	ERICA	ERICA	ERICA
	Pest Code										ERICA	ERICA	ERICA
	Crop Code									GLXMA			
	Rating Date									6-12-17	5-8-17	5-16-17	6-2-17
	Rating Type									Injury	Burndown	Burndown	Burndown
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									49 DA-A	7 DBP	1 DAP	39 DA-A
	Trt-Eval Interval									10 DA-B	14 DA-A	22 DA-A	0 DA-B
9	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	8 a	91 bc	96 a	91 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A				
	AUTHORITY ELITE	7	SC	1.42	lb ai/a	26	fl oz/a	3-4"MT	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B				
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B				
10	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	6 a	91 bc	95 a	93 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A				
	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	3-4"MT	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B				
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B				
	LSD P=.05									3.0	2.1	2.2	5.4
	Standard Deviation									1.7	1.2	1.3	3.1
	CV									24.64	1.31	1.32	3.33
	Replicate F									2.645	1.260	0.372	0.503
	Replicate Prob(F)									0.1017	0.3102	0.6951	0.6142
	Treatment F									1.711	3.691	1.698	1.101
	Treatment Prob(F)									0.1716	0.0126	0.1749	0.4118

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMATA
	Crop Code													
	Rating Date									6-2-17	6-12-17	6-12-17	6-28-17	7-10-17
	Rating Type									Residual	Burndown	Residual	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									39 DA-A	49 DA-A	49 DA-A	65 DA-A	77 DA-A
	Trt-Eval Interval									0 DA-B	10 DA-B	10 DA-B	26 DA-B	38 DA-B
1	NONTREATED									0	0	0	0	0
2	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	25 bc	93 c	95 a	77 a	68 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B					
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B					
3	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	33 bc	94 bc	92 a	85 a	73 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A					
	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	3-4"MT	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B					
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B					
4	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	33 bc	96 abc	97 a	82 a	63 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A					
	VALOR EZ	4	SC	0.078	lb ai/a	2.5	fl oz/a	3-4"MT	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B					
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B					
5	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	42 bc	96 ab	96 a	86 a	81 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A					
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	3-4"MT	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B					
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B					
6	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	50 ab	97 a	99 a	88 a	82 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A					
	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	3-4"MT	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B					
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B					
7	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	8 c	96 ab	97 a	77 a	58 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A					
	VALOR EZ	4	SC	0.078	lb ai/a	2.5	fl oz/a	3-4"MT	A					
	SENCOR 4	4	SC	0.125	lb ai/a	4	fl oz/a	3-4"MT	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B					
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B					
8	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	55 ab	96 ab	97 a	65 a	52 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A					
	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	3-4"MT	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B					
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMATA
	Crop Code													
	Rating Date									6-2-17	6-12-17	6-12-17	6-28-17	7-10-17
	Rating Type									Residual	Burndown	Residual	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									39 DA-A	49 DA-A	49 DA-A	65 DA-A	77 DA-A
	Trt-Eval Interval									0 DA-B	10 DA-B	10 DA-B	26 DA-B	38 DA-B
9	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	83 a	97 a	99 a	80 a	79 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A					
	AUTHORITY ELITE	7	SC	1.42	lb ai/a	26	fl oz/a	3-4"MT	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B					
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B					
10	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	17 bc	98 a	98 a	93 a	82 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A					
	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	3-4"MT	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B					
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B					
	LSD P=.05									40.3	2.6	4.0	19.5	34.3
	Standard Deviation									23.3	1.5	2.3	11.3	19.8
	CV									60.49	1.59	2.4	13.87	27.93
	Replicate F									4.524	5.824	0.746	1.296	1.899
	Replicate Prob(F)									0.0277	0.0126	0.4901	0.3009	0.1820
	Treatment F									2.795	2.644	2.553	1.590	0.975
	Treatment Prob(F)									0.0382	0.0466	0.0527	0.2044	0.4883

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	SIDSP 5-16-17 Residual 0-99 22 DA-A 22 DA-A	SIDSP 6-2-17 Residual 0-99 39 DA-A 0 DA-B	SIDSP 6-28-17 Control 0-99 65 DA-A 26 DA-B	SIDSP 7-10-17 Control 0-99 77 DA-A 38 DA-B	GGGAN 7-10-17 Control 0-99 77 DA-A 38 DA-B	GLXMA 10-6-17 Yield bu/A Harvest
1	NONTREATED									0	0	0	0	0	15.5 c
2	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	58 a	57 a	77 a	62 a	67 bc	54.4 ab
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B						
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B						
3	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	33 a	25 a	38 a	60 a	60 c	54.6 ab
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A						
	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	3-4"MT	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B						
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B						
4	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	42 a	28 a	33 a	50 a	60 c	53.6 ab
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A						
	VALOR EZ	4	SC	0.078	lb ai/a	2.5	fl oz/a	3-4"MT	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B						
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B						
5	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	75 a	60 a	90 a	80 a	93 a	56.5 ab
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A						
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	3-4"MT	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B						
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B						
6	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	33 a	33 a	50 a	60 a	80 abc	54.9 ab
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A						
	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	3-4"MT	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B						
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B						
7	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	66 a	63 a	77 a	71 a	82 abc	57.4 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A						
	VALOR EZ	4	SC	0.078	lb ai/a	2.5	fl oz/a	3-4"MT	A						
	SENCOR 4	4	SC	0.125	lb ai/a	4	fl oz/a	3-4"MT	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B						
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B						
8	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	66 a	73 a	68 a	50 a	83 ab	54.6 ab
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A						
	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	3-4"MT	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B						
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	SIDSP	SIDSP	SIDSP	SIDSP	GGGAN	GLXMA
	Crop Code														GLXMA
	Rating Date									5-16-17	6-2-17	6-28-17	7-10-17	7-10-17	10-6-17
	Rating Type									Residual	Residual	Control	Control	Control	Yield
	Rating Unit									0-99	0-99	0-99	0-99	0-99	bu/A
	Rating Timing									22 DA-A	39 DA-A	65 DA-A	77 DA-A	77 DA-A	
	Trt-Eval Interval									22 DA-A	0 DA-B	26 DA-B	38 DA-B	38 DA-B	Harvest
9	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	75 a	97 a	85 a	78 a	92 a	52.4 b
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A						
	AUTHORITY ELITE	7	SC	1.42	lb ai/a	26	fl oz/a	3-4"MT	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B						
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B						
10	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	58 a	57 a	68 a	72 a	68 bc	55.9 ab
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A						
	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	3-4"MT	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B						
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B						
	LSD P=.05									67.3	67.8	50.6	31.0	22.0	4.79
	Standard Deviation									38.9	39.2	29.3	17.9	12.7	2.79
	CV									69.21	71.5	44.89	27.68	16.7	5.48
	Replicate F									3.102	2.197	0.264	2.393	6.357	13.372
	Replicate Prob(F)									0.0727	0.1435	0.7713	0.1233	0.0093	0.0003
	Treatment F									0.536	1.049	1.427	1.160	3.005	60.532
	Treatment Prob(F)									0.8131	0.4424	0.2588	0.3790	0.0291	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval										GLXMA 10-6-17 Weight Pounds Harvest	GLXMA 10-6-17 Moisture Percent Harvest	GLXMA 10-6-17 Test Weight Pounds Harvest
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									2 c	7.2 b	32.6 b
2	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	8 ab	13.2 a	52.4 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B			
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B			
3	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	8 ab	12.8 a	52.6 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A			
	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	3-4"MT	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B			
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B			
4	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	8 ab	12.7 a	52.7 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A			
	VALOR EZ	4	SC	0.078	lb ai/a	2.5	fl oz/a	3-4"MT	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B			
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B			
5	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	9 ab	12.8 a	53.0 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A			
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	3-4"MT	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B			
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B			
6	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	8 ab	12.6 a	52.8 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A			
	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	3-4"MT	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B			
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B			
7	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	9 a	13.6 a	51.8 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A			
	VALOR EZ	4	SC	0.078	lb ai/a	2.5	fl oz/a	3-4"MT	A			
	SENCOR 4	4	SC	0.125	lb ai/a	4	fl oz/a	3-4"MT	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B			
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B			
8	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	8 ab	12.9 a	52.9 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A			
	AUTHORITY MTZ	45	WG	0.31	lb ai/a	11	oz/a	3-4"MT	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B			
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Pest Code											
Crop Code										GLXMA	GLXMA	GLXMA
Rating Date										10-6-17	10-6-17	10-6-17
Rating Type										Weight	Moisture	Test Weight
Rating Unit										Pounds	Percent	Pounds
Rating Timing												
Trt-Eval Interval										Harvest	Harvest	Harvest
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
9	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	8 b	12.6 a	52.7 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A			
	AUTHORITY ELITE	7	SC	1.42	lb ai/a	26	fl oz/a	3-4"MT	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B			
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B			
10	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"MT	A	9 ab	13.2 a	52.2 a
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	3-4"MT	A			
	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	3-4"MT	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3-4"MT	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2"WH	B			
	CLARITY	4	SL	0.5	lb ae/a	1	pt/a	2"WH	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2"WH	B			
LSD P=.05										0.8	1.99	7.59
Standard Deviation										0.5	1.16	4.43
CV										5.73	9.37	8.76
Replicate F										10.346	0.133	1.213
Replicate Prob(F)										0.0010	0.8765	0.3206
Treatment F										58.107	7.493	6.138
Treatment Prob(F)										0.0001	0.0002	0.0006

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Fierce Plus Dicamba Burndown for No-Till Soybean.
Trial ID: 17-DSO-VAL-BD Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Valent (FIERCEMD6406).
2. Ratings:
   CI 14, 28, and 56 days after planting.
   WC as burndown at 14 DA-A and again at planting, rate residual control at planting if any new emergence.
   WC as residual at 14, 28, 42 and 56 days after planting.
   Rate before spray application B, can be the 14 and/or 28 DAP rating but get a rating right before the POST.
   WC ratings following application B are based on DAP, but get one POST burndown rating
   and then rate residual after new emergence.
3. Yield.
4. Application A is 3-4 inch marestail.
   Application B is 2 inch waterhemp in the Fierce treatment (#5).
5. Photos requested weekly or at least at each rating.
6. Should not need a blanket for grass control, but maybe after the POST burndown rating.
7. Target marestail and waterhemp but rate other weeds.

Rainfall following application A was 2.06" over 3 days beginning 46 hours after application.
Rainfall following application B was 1.24" over 2 days beginning 51 hours after application.

CI was leaf malformation and necrosis. Pictures of injury available from 6/12, 10 DA-B

No new weed emergence was observed at the 14 DA-A rating.

SIDSP was the only new emergence at 22 DA-A timing. SIDSP was variable across the field and not reliable as an indicator of herbicide efficacy. SIDSP and GGGAN were rated following the B application to show that AMATA control after B may have been a combindation of herbicide efficacy and interspecific competition in some plots. GGGAN is a mixture of fall panicum, giant foxtail, and goosegrass.

Harvested plot area = 22.5' x 5'

Southern Illinois University

Scepter Tank-Mixes for Preemergnce Applications in Soybean.
Trial ID: 17-2A-E110 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-26-17
Completion Date: 7-21-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.515938 N
Longitude of LL Corner °: 89.83993 E
Altitude of LL Corner, Unit: 435.00 FT
Angle y-axis to North °: 90.00

Objectives:
Evaluate fit and performance of Scepter in at-plant preemergence programs.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 39X7 **BBCH Scale:** BSOY
Description: RR2X

Planting Date: 5-26-17
Planting Method: SEEDED

Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 67 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 3 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Pest 4 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 28 FT **Total Plot Length:** 28 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 02a_2013
% OM: 2.5 **Texture:** SIL silt loam
pH: 6.7 **Soil Name:** Pierron
CEC: 6

Additional Measured Elements

Element	Quantity	Unit
P1	65	lb/A
K	262	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-15-17					7	DAY	49	86	F
2.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
3.	4-22-17					7	DAY	41	80	F
4.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
5.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
6.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
7.	4-29-17					7	DAY	45	77	F
8.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
9.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
10.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
11.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
12.	5-6-17					7	DAY	43	87	F
13.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
14.	5-13-17					7	DAY	51	87	F
15.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
16.	5-20-17					7	DAY	50	80	F
17.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
18.	5-27-17					7	DAY	55	87	F
19.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
20.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
21.	6-3-17					7	DAY	54	89	F
22.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
23.	6-14-17	0.16	IN	RAIN	rain	1	DAY			
24.	6-15-17	0.94	IN	RAIN	rain	1	DAY			
25.	6-17-17					7	DAY	62	92	F
26.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
27.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
28.	6-24-17					7	DAY	53	91	F
29.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
30.	7-1-17					7	DAY	60	93	F
31.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
32.	7-8-17					7	DAY	67	98	F
33.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
34.	7-15-17					7	DAY	60	91	F
35.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
36.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
37.	7-22-17					7	DAY	69	99	F
38.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
39.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
40.	7-29-17					7	DAY	61	83	F

Application Description

	A
Application Date:	5-27-17
Appl. Start Time:	9:50
Appl. Stop Time:	10:20
Application Method:	Spray
Application Timing:	PRE
Application Placement:	BROSOI
Applied By:	MCG
Air Temperature, Unit:	58 F
% Relative Humidity:	58
Wind Velocity, Unit:	7 MPH
Wind Direction:	SE
Dew Presence (Y/N):	N
Soil Temperature, Unit:	69 F
Soil Moisture:	N
% Cloud Cover:	0
Next Moisture Occurred On:	5-27-17
Time to Next Moisture, Unit:	6 HR

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMATA W
Stage Majority, Percent:	NA
Pest 2 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	NA
Pest 3 Code, Type, Scale:	XANST W
Stage Majority, Percent:	NA
Pest 4 Code, Type, Scale:	SETFA W
Stage Majority, Percent:	NA

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Nozzle Spacing, Unit:	20 IN
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Scepter Tank-Mixes for Preemergnce Applications in Soybean.
Trial ID: 17-2A-E110 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code											
	Crop Code									GLXMA	GLXMA	GLXMA
	Rating Date									6-5-17	6-9-17	6-23-17
	Rating Type									Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									7 DA-A	14 DA-A	28 DA-A
1	NONTREATED									0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A	0 a	0 b	1 d
3	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	0 b	5 cd
4	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	0 a	0 b	13 b
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A			
5	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	0 a	0 b	9 bc
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A			
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	0 a	0 b	0 d
7	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	0 a	0 b	11 b
	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
8	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A	0 a	0 b	1 d
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A			
9	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A	0 a	0 b	5 cd
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A			
10	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	0 a	0 b	11 b
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A			
	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A			
11	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	0 a	0 b	14 b
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A			
	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A			
12	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	PRE	A	0 a	0 b	3 cd
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A			
13	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	0 a	0 b	11 b
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	PRE	A			
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A			
14	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	0 a	29 a	34 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A			
	VALOR SX	51	WG	0.0765	lb ai/a	2.4	oz/a	PRE	A			
	LSD P=.05									.	1.0	5.8
	Standard Deviation									0.0	0.7	4.1
	CV									0.0	31.35	45.08
	Replicate F									0.000	1.000	3.541
	Replicate Prob(F)									1.0000	0.4040	0.0241
	Treatment F									0.000	529.000	18.974
	Treatment Prob(F)									1.0000	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,13,17,21
Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									AMATA	AMATA	AMATA	AMATA
	Crop Code												
	Rating Date									6-9-17	6-23-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing												
	Trt-Eval Interval									14 DA-A	28 DA-A	42 DA-A	56 DA-A
1	NONTREATED									0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A	74 b	0 d	0 e	0 d
3	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A	99 a	99 a	99 a	99 a
4	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	99 a	99 a	98 ab	98 ab
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
5	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	92 a	98 a	97 ab	97 ab
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A				
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	93 b	90 c	88 b
7	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	99 a	99 a	99 a	99 a
	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A				
8	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A	99 a	97 a	97 ab	97 ab
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
9	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A	99 a	93 b	95 b	94 ab
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A				
10	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	99 a	99 a	99 a	99 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A				
11	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	99 a	99 a	99 a	98 a
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A				
	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A				
12	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	PRE	A	97 a	83 c	79 d	63 c
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
13	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	99 a	99 a	97 ab	95 ab
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	PRE	A				
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
14	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	99 a	99 a	99 a	99 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
	VALOR SX	51	WG	0.0765	lb ai/a	2.4	oz/a	PRE	A				
	LSD P=.05									9.7	3.5	2.7	10.2
	Standard Deviation									6.8	2.4	1.9	7.1
	CV									7.04	2.75	2.1	8.26
	Replicate F									0.743	2.156	0.155	0.505
	Replicate Prob(F)									0.5333	0.1102	0.9259	0.6816
	Treatment F									4.360	492.673	855.002	60.608
	Treatment Prob(F)									0.0003	0.0001	0.0001	0.0001

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,13,17,21
Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code												
	Rating Date									6-9-17	6-23-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing												
	Trt-Eval Interval									14 DA-A	28 DA-A	42 DA-A	56 DA-A
1	NONTREATED									0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A	74 abc	70 abc	58 cde	40 bc
3	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 f	31 d	20 f	15 d
4	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	51 de	63 bc	33 ef	20 cd
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
5	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	59 cde	65 abc	68 abc	20 cd
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A				
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	73 abc	70 abc	60 bcd	26 cd
7	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	63 cd	63 bc	40 def	18 d
	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A				
8	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A	44 e	36 d	38 def	14 d
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
9	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A	70 bc	68 abc	54 cde	40 bc
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A				
10	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	65 cd	50 cd	40 def	15 d
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A				
11	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	66 cd	54 cd	48 cde	28 cd
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A				
	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A				
12	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	PRE	A	89 a	86 ab	88 a	74 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
13	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	85 ab	88 a	86 ab	60 ab
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	PRE	A				
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
14	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	74 abc	73 abc	68 abc	18 d
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A				
	VALOR SX	51	WG	0.0765	lb ai/a	2.4	oz/a	PRE	A				
	LSD P=.05									18.2	23.9	27.1	20.7
	Standard Deviation									12.7	16.7	18.9	14.4
	CV									20.36	26.6	35.17	48.59
	Replicate F									5.722	1.842	2.335	1.645
	Replicate Prob(F)									0.0026	0.1570	0.0902	0.1962
	Treatment F									12.439	4.029	4.586	6.813
	Treatment Prob(F)									0.0001	0.0006	0.0002	0.0001

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Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
	Pest Code									XANST	XANST	XANST	XANST	SETFA	SETFA	SETFA
	Crop Code															
	Rating Date									6-9-17	6-23-17	7-7-17	7-21-17	6-23-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing															
	Trt-Eval Interval									14 DA-A	28 DA-A	42 DA-A	56 DA-A	28 DA-A	42 DA-A	56 DA-A
1	NONTREATED									0	0	0	0	0	0	0
2	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A	50 cde	73 abc	53 bcd	53 bc	53 d	40 c	25 d
3	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 f	0 e	0 g	0 d	99 a	98 a	98 a
4	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	43 de	57 bcd	43 cde	33 bcd	99 a	98 a	98 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A							
5	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	67 bc	55 cd	23 d-g	23 cd	98 a	97 a	97 ab
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A							
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	68 abc	68 abc	60 bc	60 abc	84 b	78 b	73 bc
7	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	70 abc	73 abc	60 bc	56 abc	98 a	98 a	98 a
	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A							
8	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A	33 e	29 de	20 efg	20 cd	80 b	78 b	54 c
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A							
9	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A	65 cd	56 bcd	45 cde	35 bcd	81 b	75 b	58 c
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A							
10	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	54 cde	33 de	8 fg	8 d	97 a	99 a	99 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A							
	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A							
11	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	68 abc	50 cd	40 c-f	30 cd	99 a	96 a	94 ab
	SCEPTER	70	WG	0.123	lb ai/a	2.8	oz/a	PRE	A							
	METRIBUZIN 75DF	75	WG	0.375	lb ai/a	0.5	lb/a	PRE	A							
12	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	PRE	A	90 a	92 a	95 a	94 a	64 c	28 c	10 d
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A							
13	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	89 ab	90 ab	86 ab	73 ab	98 a	96 a	89 ab
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	PRE	A							
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A							
14	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	PRE	A	90 a	71 abc	50 cde	37 bcd	98 a	98 a	96 ab
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	PRE	A							
	VALOR SX	51	WG	0.0765	lb ai/a	2.4	oz/a	PRE	A							
	LSD P=.05									21.9	33.7	32.9	40.1	8.7	13.0	25.2
	Standard Deviation									15.2	23.4	22.9	27.8	6.1	9.1	17.6
	CV									25.11	40.84	51.04	69.29	6.92	10.96	23.13
	Replicate F									1.481	1.694	0.866	0.335	0.778	0.186	0.225
	Replicate Prob(F)									0.2403	0.1873	0.4684	0.8003	0.5137	0.9049	0.8782
	Treatment F									11.072	4.752	5.922	3.602	24.998	27.306	12.020
	Treatment Prob(F)									0.0001	0.0002	0.0001	0.0020	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=9,13,17,21
Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

Southern Illinois University

Scepter Tank-Mixes for Preemergnce Applications in Soybean.
Trial ID: 17-2A-E110 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: AMVAC (17C05H043).
2. Ratings:
   CI 7, 14 and 28 DA-A.
   WC 14, 28, 42 and 56 DA-A.
3. Yield not requested.
4. Photos not requested, but as PREs are breaking.

Rainfall following PRE application A was 0.22" over 1 day begining 6 hours after application.

Southern Illinois University

Economical Preemergence Herbicide Options in a Tilled Dicamba-Tolerant Soybean System.

Trial ID: 17-26C Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Official Trial ID:

Conducted Under GEP: No

Trial Status: F one-year/final
Initiation Date: 5-31-17
Completion Date: 8-8-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Upper Left: 38.51777 89.83969 **Upper Right:** 38.517304 89.839693
Latitude of LL Corner °: 38.51777 N **Lower Right:** 38.517309 89.840051
Longitude of LL Corner °: 89.840033 W USAIL 42.5083389 - 36.9702949
Altitude of LL Corner, Unit: 435.00 FT -87.0199279 - -91.5130844
Angle y-axis to North °: 90.00
GPS Precision: G GPS for trial site

Objectives:
Evaluate herbicide system performance when using several economic tiers of preemergence herbicides followed by Engenia plus glyphosate.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 39X7 **BBCH Scale:** BSOY
Description: RR2X
Planting Date: 5-31-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 69 F
Soil Moisture: BELNOR

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 2 Type: W **Code:** CHEAL Chenopodium album L.
Common Name: lambsquarters, common

Pest 3 Type: W **Code:** PANDI Panicum dichotomiflorum Michx.
Common Name: panicum, fall

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** NONRAN Non-Randomized
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 26C_2013
% OM: 2.6 **Texture:** SIL silt loam
pH: 6.4 **Soil Name:** Winfield
CEC: 7

Additional Measured Elements

Element	Quantity	Unit
P1	70	lb/A
K	346	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	39	70	F
2.	4-2-17	1.85	IN	RAIN	rain	5	DAY			
3.	4-8-17					7	DAY	39	81	F
4.	4-10-17	0.12	IN	RAIN	rain	1	DAY			
5.	4-14-17	0.21	IN	RAIN	rain	1	DAY			
6.	4-15-17					7	DAY	49	86	F
7.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
8.	4-22-17					7	DAY	41	80	F
9.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
10.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
11.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
12.	4-29-17					7	DAY	45	77	F
13.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
14.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
15.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
16.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
17.	5-6-17					7	DAY	43	87	F
18.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
19.	5-13-17					7	DAY	51	87	F
20.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
21.	5-20-17					7	DAY	50	80	F
22.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
23.	5-27-17					7	DAY	55	87	F
24.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
25.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
26.	6-3-17					7	DAY	54	89	F
27.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
28.	6-14-17	0.16	IN	RAIN	rain	1	DAY			
29.	6-15-17	0.94	IN	RAIN	rain	1	DAY			
30.	6-17-17					7	DAY	62	92	F
31.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
32.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
33.	6-24-17					7	DAY	53	91	F
34.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
35.	7-1-17					7	DAY	60	93	F
36.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
37.	7-8-17					7	DAY	67	98	F
38.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
39.	7-15-17					7	DAY	60	91	F
40.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
41.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
42.	7-22-17					7	DAY	69	99	F
43.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
44.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
45.	7-29-17					7	DAY	61	83	F
46.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
47.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
48.	8-5-17					7	DAY	55	87	F
49.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
50.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
51.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
52.	8-12-17					7	DAY	56	84	F
53.	8-14-17	0.3	IN	RAIN	rain	1	DAY			

Application Description

	A	B
Application Date:	6-1-17	6-22-17
Appl. Start Time:	11:05	7:21
Appl. Stop Time:	11:35	7:42
Interval to Prev. Appl., Unit:		21 DAYS
Application Method:	Spray	Spray
Application Timing:	PRE	V3
Application Placement:	BROSOI	BROFOL
Applied By:	MCG	RLS
Air Temperature, Unit:	78 F	77 F
% Relative Humidity:	36	83
Wind Velocity, Unit:	0 MPH	10 MPH
Wind Direction:		SSW
Dew Presence (Y/N):	N	Y
Soil Temperature, Unit:	69 F	75 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	80	70
Next Moisture Occurred On:	6-4-17	6-30-17
Time to Next Moisture, Unit:	75 HR	8 DAY

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	V2
Stage Minimum, Percent:		V2
Stage Maximum, Percent:		V3
Height, Unit:		5 IN
Height Minimum, Maximum:		4 6

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:		5
Stage Minimum, Percent:		7
Stage Maximum, Percent:		50
Height, Unit:		3 IN
Height Minimum, Maximum:		2 14
Density, Unit:		0.5 FT2
Pest 2 Code, Type, Scale:	CHEAL W	CHEAL W
Stage Majority, Percent:		12
Stage Minimum, Percent:		5
Stage Maximum, Percent:		18
Height, Unit:		4 IN
Height Minimum, Maximum:		1 7
Density, Unit:		0.1 FT2
Pest 3 Code, Type, Scale:	PANDI W	PANDI W
Stage Majority, Percent:		3
Stage Minimum, Percent:		2
Stage Maximum, Percent:		4
Height, Unit:		3.5 IN
Height Minimum, Maximum:		0.4 5
Density, Unit:		1 FT2

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	TTI
Nozzle Size:	8002	11002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University
Economical Preemergence Herbicide Options in a Tilled Dicamba-Tolerant Soybean System.
Trial ID: 17-26C Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.
Official Trial ID:
Conducted Under GEP: No

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code												
	Crop Code										GLXMA	GLXMA	GLXMA
	Rating Date										6-14-17	6-21-17	6-29-17
	Rating Type										Injury	Injury	Injury
	Rating Unit										0-99	0-99	0-99
	Rating Timing												
	Trt-Eval Interval										14 DA-A	21 DA-A	28 DA-A
1	NO PRE HERBICIDE										0	0	0
	NO POST HERBICIDE												
2	NO PRE HERBICIDE										0 a	0 a	3 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B				
3	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A		0 a	0 a	0 c
4	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A		0 a	0 a	3 ab
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B				
5	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A		1 a	0 a	0 c
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A				
6	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A		0 a	0 a	2 b
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A				
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B				
7	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A		1 a	0 a	0 c
8	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A		2 a	0 a	2 b
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B				
9	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A		1 a	0 a	0 c
10	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A		1 a	0 a	3 ab
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B				
11	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A		1 a	0 a	0 c
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A				
12	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A		1 a	0 a	2 b
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A				
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B				
	LSD P=.05									.	1.8	.	0.6
	Standard Deviation									.	1.3	0.0	0.4
	CV									.	234.52	0.0	30.97
	Treatment F										0.667	0.000	39.627
	Treatment Prob(F)										0.7463	1.0000	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,12,16,19,22,25,29
Could not calculate LSD (% mean diff) for columns 30,9 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
	Crop Code															
	Rating Date									6-14-17	6-21-17	6-29-17	7-6-17	7-13-17	7-25-17	8-8-17
	Rating Type									Control	Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing															
	Trt-Eval Interval									14 DA-A	21 DA-A	28 DA-A	35 DA-A	42 DA-A	56 DA-A	70 DA-A
1	NO PRE HERBICIDE									0	0	0	0	0	0	0
	NO POST HERBICIDE															
2	NO PRE HERBICIDE									0 d	0 d	97 a	97 a	97 a	97 a	97 ab
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
3	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	96 c	93 bc	86 b	87 a	91 a	89 b	88 c
4	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	97 bc	91 c	99 a	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
5	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	99 a	98 a	96 a	98 a	98 a	93 ab	93 bc
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A							
6	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	97 abc	97 a	99 a	99 a	99 a	99 a	99 a
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A							
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
7	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	96 bc	96 ab	93 a	94 a	95 a	89 b	88 c
8	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	97 abc	96 ab	99 a	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
9	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	96 bc	96 ab	96 a	95 a	96 a	93 ab	93 abc
10	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	97 abc	97 a	99 a	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
11	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	98 ab	97 a	97 a	98 a	98 a	97 a	96 ab
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A							
12	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	98 ab	98 a	99 a	99 a	99 a	99 a	99 a
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A							
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
	LSD P=.05									1.9	3.4	7.6	7.9	4.8	6.8	6.4
	Standard Deviation									1.3	2.4	5.3	5.5	3.4	4.7	4.5
	CV									1.5	2.75	5.51	5.69	3.46	4.95	4.68
	Treatment F									1961.184	585.207	2.323	1.679	2.115	2.875	3.906
	Treatment Prob(F)									0.0001	0.0001	0.0336	0.1279	0.0518	0.0108	0.0014

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Missing data estimates are included in columns:Average=8,12,16,19,22,25,29
Could not calculate LSD (% mean diff) for columns 30,9 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL
	Pest Code									CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL	CHEAL
	Crop Code															
	Rating Date									6-14-17	6-21-17	6-29-17	7-6-17	7-13-17	7-25-17	8-8-17
	Rating Type									Control	Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing															
	Trt-Eval Interval									14 DA-A	21 DA-A	28 DA-A	35 DA-A	42 DA-A	56 DA-A	70 DA-A
1	NO PRE HERBICIDE									0	0	0	0	0	0	0
	NO POST HERBICIDE															
2	NO PRE HERBICIDE									0 e	0 d	99 a	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
3	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	62 cd	53 c	33 c	27 e	48 d	17 c	17 c
4	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	78 abc	60 bc	99 a	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
5	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	70 bc	68 abc	50 c	53 cd	54 cd	30 c	30 c
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A							
6	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	50 d	68 abc	99 a	99 a	99 a	99 a	99 a
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A							
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
7	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	90 a	77 a	70 b	70 bc	74 bc	58 b	58 b
8	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	85 ab	73 ab	99 a	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
9	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	80 ab	80 a	78 b	80 b	85 ab	73 b	74 b
10	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	83 ab	80 a	99 a	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
11	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	78 abc	65 abc	45 c	40 de	50 d	15 c	15 c
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A							
12	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	70 bc	60 bc	99 a	99 a	99 a	99 a	99 a
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A							
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
	LSD P=.05									17.3	15.0	18.6	18.0	20.7	18.3	18.7
	Standard Deviation									10.8	10.2	12.9	12.4	14.3	12.7	13.0
	CV									16.0	16.43	16.25	15.86	17.35	17.74	18.14
	Treatment F									21.523	19.122	15.866	19.217	9.358	31.530	30.063
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,12,16,19,22,25,29
Could not calculate LSD (% mean diff) for columns 30,9 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
	Pest Code									GGGAN	GGGAN	GGGAN	GGGAN	GGGAN	GGGAN	GGGAN
	Crop Code															
	Rating Date									6-14-17	6-21-17	6-29-17	7-6-17	7-13-17	7-25-17	8-8-17
	Rating Type									Control	Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing															
	Trt-Eval Interval									14 DA-A	21 DA-A	28 DA-A	35 DA-A	42 DA-A	56 DA-A	70 DA-A
1	NO PRE HERBICIDE									0	0	0	0	0	0	0
	NO POST HERBICIDE															
2	NO PRE HERBICIDE									0 c	0 d	96 ab	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
3	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	96 ab	88 c	83 d	79 c	84 d	76 c	76 c
4	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	95 ab	90 bc	99 a	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
5	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	96 ab	92 abc	88 cd	87 bc	90 c	85 bc	86 bc
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A							
6	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	95 ab	92 abc	99 a	99 a	99 a	99 a	99 a
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A							
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
7	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	93 b	92 abc	89 c	88 bc	93 bc	86 bc	86 bc
8	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	93 b	93 ab	99 a	99 a	99 a	99 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
9	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	94 ab	93 ab	92 bc	91 ab	95 abc	88 b	88 b
10	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	95 ab	94 ab	99 a	99 a	99 a	98 a	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
11	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	96 ab	96 a	95 ab	95 ab	98 ab	94 ab	94 ab
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A							
12	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	97 a	96 a	99 a	99 a	99 a	99 a	99 a
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A							
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B							
	LSD P=.05									3.3	4.7	6.0	9.2	5.2	10.5	10.4
	Standard Deviation									2.3	3.3	4.2	6.4	3.6	7.3	7.3
	CV									2.69	3.9	4.41	6.81	3.78	7.89	7.8
	Treatment F									609.539	291.447	7.720	4.706	7.621	4.633	4.649
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0003	0.0001	0.0004	0.0004

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,12,16,19,22,25,29
Could not calculate LSD (% mean diff) for columns 30,9 because error mean square = 0.

Pest Code	TTTTT
Crop Code	
Rating Date	7-25-17
Rating Type	Control
Rating Unit	0-99
Rating Timing	
Trt-Eval Interval	56 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	NO PRE HERBICIDE									0
	NO POST HERBICIDE									
2	NO PRE HERBICIDE									97 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B	
3	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	0 e
4	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B	
5	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	13 de
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A	
6	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	99 a
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	PRE	A	
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B	
7	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	36 bc
8	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B	
9	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	54 b
10	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	99 a
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B	
11	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	28 cd
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A	
12	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	PRE	A	99 a
	ZIDUA SC	4	SC	0.102	lb ai/a	3.25	fl oz/a	PRE	A	
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V3	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V3	B	

LSD P=.05	18.6
Standard Deviation	12.9
CV	19.69
Treatment F	38.596
Treatment Prob(F)	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=8,12,16,19,22,25,29
Could not calculate LSD (% mean diff) for columns 30,9 because error mean square = 0.

Southern Illinois University
Economical Preemergence Herbicide Options in a Tilled Dicamba-Tolerant Soybean System.
Trial ID: 17-26C Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.
Official Trial ID:
Conducted Under GEP: No

Trial Comments

1. Protocol: (BASF D88).
2. Ratings:
   CI 14 and 21 DA-A, rate CI again at 28 DA-A if not fully recovered.
   WC 14, 21, 28, 35, 42, 56, and 70 DA-A, rate at DA-A regardless of application B timing.
3. Yield not requested.
4. Application B is V3 soybean or 21-28 DA-A.
5. Photos requested at 28 DA-A, before or after application B?
   Photos should show side-by-side comparisons, i.e. shoot 101+102 together.

Rainfall following application A was 0.41" over 1 day begining 3 days after application.
Rainfall following application B was less than 0.1" through 7/5, 12 days after application; rainfall on 7/6 was 0.25".

CHEAL pressure was inconsistent across trial.

Annual grass (GGGAN) is a mixture of PANDI (50%), SETFA (40%), and DIGSA (10%).
Weeds generally (TTTTT) is a measure of overall control.

Photos available from 6/21 and 6/29.

Southern Illinois University

Evaluation of Syngenta Residual Herbicides in a Liberty Link Soybean System.
Trial ID: 17-19B-S40 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-25-17
Completion Date: 10-17-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.519039 N
Longitude of LL Corner °: 89.844317 W
Altitude of LL Corner, Unit: 435.00 FT
Angle y-axis to North °: 270.00

Objectives:
Demonstrate the weed control value and ROI of Syngenta residuals in a Liberty link system, while demonstrating use of multiple active ingredients for resistance management.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Pioneer 37T09L **BBCH Scale:** BSOY
Description: LL
Planting Date: 5-25-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 66.4 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** IPOHE Ipomoea hederacea (L.) Jacq.
Common Name: morningglory, ivyleaf

Pest 3 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Pest 4 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 100 LB/A, K2O 200 LB/A

Soil Description

Description Name: 19B_2013
% OM: 3.5 **Texture:** SIL silt loam
pH: 6.6 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	54	lb/A
K	335	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
2.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
3.	5-6-17					7	DAY	43	87	F
4.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
5.	5-13-17					7	DAY	51	87	F
6.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
7.	5-20-17					7	DAY	50	80	F
8.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
9.	5-27-17					7	DAY	55	87	F
10.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
11.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
12.	6-3-17					7	DAY	54	89	F
13.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
14.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
15.	6-17-17					7	DAY	62	92	F
16.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
17.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
18.	6-24-17					7	DAY	53	91	F
19.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
20.	7-1-17					7	DAY	60	93	F
21.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
22.	7-8-17					7	DAY	67	98	F
23.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
24.	7-15-17					7	DAY	60	91	F
25.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
26.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
27.	7-22-17					7	DAY	69	99	F
28.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
29.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
30.	7-29-17					7	DAY	61	83	F
31.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
32.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
33.	8-5-17					7	DAY	55	87	F
34.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
35.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
36.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
37.	8-12-17					7	DAY	56	84	F
38.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
39.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
40.	8-19-17					7	DAY	56	94	F
41.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
42.	8-26-17					7	DAY	56	86	F
43.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
44.	9-2-17					7	DAY	47	95	F
45.	9-5-17	0.78	IN	RAIN	rain	1	DAY			
46.	9-9-17					7	DAY	57	83	F
47.	9-13-17	0.13	IN	RAIN	rain	1	DAY			
48.	9-16-17							97	58	F
49.	9-19-17	0.07	IN	RAIN	rain	1	DAY			
50.	9-23-17							95	46	F
51.	9-30-17							86	44	F

52.	10-3-17	0.38	IN	RAIN	rain	1	DAY			
53.	10-7-17							86	50	F
54.	10-7-17	0.16	IN	RAIN	rain	1	DAY			
55.	10-10-17	0.56	IN	RAIN	rain	2	DAY			
56.	10-14-17							89	38	F
57.	10-15-17	0.66	IN	RAIN	rain	1	DAY			
58.	10-21-17					7	DAY	36	79	F
59.	10-22-17	0.65	IN	RAIN	rain	2	DAY			
60.	10-28-17					7	DAY	25	76	F

Application Description

	A	B	C
Application Date:	5-27-17	6-13-17	6-27-17
Appl. Start Time:	9:25	11:30	7:43
Appl. Stop Time:	9:32	11:50	7:50
Interval to Prev. Appl., Unit:		17 DAYS	14 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	3-5"W-1	3-5"W-2
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RLS	MCG	MCG
Air Temperature, Unit:	79 F	90 F	67 F
% Relative Humidity:	63	56	72
Wind Velocity, Unit:	0 MPH	10 MPH	3 MPH
Wind Direction:	NA	S	NE
Dew Presence (Y/N):	N	N	Y
Soil Temperature, Unit:	69 F	74 F	69 F
Soil Moisture:	NORMAL	NORMAL	N
% Cloud Cover:	30	0	0
Next Moisture Occurred On:	5-27-17	6-14-17	7-5-17
Time to Next Moisture, Unit:	8 HR	25 HR	9 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	V2	V5
Stage Minimum, Percent:		V2	V4
Stage Maximum, Percent:		V2	V6
Height, Unit:		5 IN	9.5 IN
Height Minimum, Maximum:		4 5	6 10

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:	NA	3	2
Stage Minimum, Percent:		COT	COT
Stage Maximum, Percent:		4	2
Height, Unit:		2 IN	1 IN
Height Minimum, Maximum:		0.5 4	1 2
Density, Unit:		0.1 FT2	0.05 FT2
Pest 2 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W
Stage Majority, Percent:	NA	COT	1
Stage Minimum, Percent:		COT	COT
Stage Maximum, Percent:		5	2
Height, Unit:		0.5 IN	1 IN
Height Minimum, Maximum:		0.4 3	0.5 2
Density, Unit:		5 FT2	0.2 FT2
Pest 3 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:	NA	10	4
Stage Minimum, Percent:		2	1
Stage Maximum, Percent:		10	12
Height, Unit:		5 IN	2 IN
Height Minimum, Maximum:		0.3 7	0.3 7
Density, Unit:		20 FT2	0.1 FT2
Pest 4 Code, Type, Scale:	XANST W	XANST W	XANST W
Stage Majority, Percent:	NA	5	2
Stage Minimum, Percent:		COT	COT
Stage Maximum, Percent:		6	3
Height, Unit:		3 IN	1.5 IN
Height Minimum, Maximum:		0.2 4	0.5 3
Density, Unit:		2 FT2	0.2 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

Evaluation of Syngenta Residual Herbicides in a Liberty Link Soybean System.
Trial ID: 17-19B-S40 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code													
	Crop Code									GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									6-5-17	6-12-17	6-19-17	6-26-17	7-3-17
	Rating Type									Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	16 DA-A	23 DA-A	30 DA-A	20 DA-B
	Trt-Eval Interval										-1 DA-B	6 DA-B	13 DA-B	6 DA-C
1	NONTREATED									0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B			0 c	0 b	1 a
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-2	C					
3	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B			10 b	2 b	1 a
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B					
4	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	0 a	6 a	2 c	0 b	0 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B					
5	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	0 a	5 a	18 a	5 a	1 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B					
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B					
6	SONIC	70	WG	0.219	lb ai/a	5	oz/a	PRE	A	0 a	0 b	0 c	0 b	1 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B					
	LSD P=.05									.	1.5	7.1	2.4	0.9
	Standard Deviation									0.0	0.7	3.8	1.3	0.5
	CV									0.0	18.75	62.73	96.82	55.74
	Replicate F									0.000	1.000	2.471	1.000	0.286
	Replicate Prob(F)									1.0000	0.4444	0.1460	0.4096	0.7588
	Treatment F									0.000	64.750	13.706	8.500	1.857
	Treatment Prob(F)									1.0000	0.0009	0.0012	0.0056	0.2115

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
Pest Code										ABUTH	ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
Crop Code															
Rating Date										6-5-17	6-12-17	6-19-17	6-26-17	7-6-17	7-11-17
Rating Type										Control	Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing										9 DA-A	16 DA-A	23 DA-A	30 DA-A	20 DA-B	28 DA-B
Trt-Eval Interval											-1 DA-B	6 DA-B	13 DA-B	6 DA-C	14 DA-C
1	NONTREATED									0	0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B			99 a	96 a	99 a	99 a
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-2	C						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-2	C						
3	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B			99 a	98 a	98 a	97 b
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
4	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	90 a	70 b	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
5	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	90 a	78 ab	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B						
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
6	SONIC	70	WG	0.219	lb ai/a	5	oz/a	PRE	A	98 a	92 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
LSD P=.05										13.2	14.6	.	2.9	1.5	1.5
Standard Deviation										5.8	6.5	0.0	1.5	0.8	0.8
CV										6.26	8.07	0.0	1.58	0.78	0.79
Replicate F										0.723	0.800	0.000	1.000	1.000	1.000
Replicate Prob(F)										0.5396	0.5102	1.0000	0.4096	0.4096	0.4096
Treatment F										2.149	8.600	0.000	2.125	1.000	4.000
Treatment Prob(F)										0.2324	0.0356	1.0000	0.1691	0.4609	0.0453

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
Pest Code										SETFA	SETFA	SETFA	SETFA	SETFA	SETFA
Crop Code															
Rating Date										6-5-17	6-12-17	6-19-17	6-26-17	7-6-17	7-11-17
Rating Type										Control	Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing										9 DA-A	16 DA-A	23 DA-A	30 DA-A	20 DA-B	28 DA-B
Trt-Eval Interval											-1 DA-B	6 DA-B	13 DA-B	6 DA-C	14 DA-C
1	NONTREATED									0	0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B			87 b	93 b	99 a	99 a
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-2	C						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-2	C						
3	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B			86 b	96 ab	98 a	95 a
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
4	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	96 a	94 a	98 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
5	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	98 a	92 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B						
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
6	SONIC	70	WG	0.219	lb ai/a	5	oz/a	PRE	A	57 a	70 b	96 a	98 a	98 a	97 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B						
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B						
LSD P=.05										64.9	11.4	6.4	3.9	0.8	4.0
Standard Deviation										28.6	5.0	3.4	2.1	0.4	2.1
CV										34.33	5.88	3.63	2.14	0.41	2.17
Replicate F										0.975	2.954	0.855	1.714	0.000	0.461
Replicate Prob(F)										0.4520	0.1630	0.4609	0.2401	1.0000	0.6464
Treatment F										1.968	21.232	10.619	5.135	3.400	1.836
Treatment Prob(F)										0.2540	0.0074	0.0028	0.0239	0.0662	0.2153

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
	Pest Code									XANST	XANST	XANST	XANST	XANST	XANST	IPOHE
	Crop Code															
	Rating Date									6-5-17	6-12-17	6-19-17	6-26-17	7-6-17	7-11-17	7-11-17
	Rating Type									Control	Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	16 DA-A	23 DA-A	30 DA-A	20 DA-B	28 DA-B	28 DA-B
	Trt-Eval Interval										-1 DA-B	6 DA-B	13 DA-B	6 DA-C	14 DA-C	14 DA-C
1	NONTREATED									0	0	0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B			97 a	93 a	99 a	99 a	98 a
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B							
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-2	C							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-2	C							
3	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B			98 a	90 a	89 a	88 a	87 b
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B							
4	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	13 b	43 a	97 a	95 a	94 a	90 a	83 b
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B							
5	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	57 ab	57 a	98 a	96 a	97 a	95 a	88 b
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B							
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B							
6	SONIC	70	WG	0.219	lb ai/a	5	oz/a	PRE	A	81 a	83 a	98 a	98 a	98 a	97 a	98 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B							
	LSD P=.05									50.6	32.3	1.1	9.4	9.4	10.8	6.0
	Standard Deviation									22.3	14.2	0.6	5.0	5.0	5.8	3.2
	CV									44.32	23.3	0.57	5.29	5.21	6.14	3.53
	Replicate F									0.792	0.096	6.526	1.372	0.690	1.161	3.302
	Replicate Prob(F)									0.5130	0.9106	0.0209	0.3073	0.5291	0.3608	0.0900
	Treatment F									7.082	6.137	2.421	1.180	1.918	1.924	13.625
	Treatment Prob(F)									0.0485	0.0604	0.1336	0.3889	0.2009	0.1999	0.0012

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 10-17-17 Yield bu/A Harvest	GLXMA 10-17-17 Moisture Percent Harvest	GLXMA 10-17-17 Test wt. lb/bu Harvest	GLXMA 10-17-17 Weight lb/plot Harvest
	Pest Code												
	Crop Code												
	Rating Date												
	Rating Type												
	Rating Unit												
	Rating Timing												
	Trt-Eval Interval												
1	NONTREATED									9.4 c	2.5 b	19.3 a	1.6 c
2	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B	81.1 ab	13.0 a	54.5 a	12.3 ab
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B				
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-2	C				
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-2	C				
3	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B	70.2 ab	12.8 a	54.7 a	10.7 ab
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B				
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B				
4	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	60.7 b	13.1 a	54.4 a	9.2 b
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B				
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B				
5	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	62.8 ab	13.2 a	54.3 a	9.5 ab
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B				
	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	3-5"W-1	B				
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B				
6	SONIC	70	WG	0.219	lb ai/a	5	oz/a	PRE	A	84.1 a	12.8 a	54.6 a	12.8 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	1	qt/a	3-5"W-1	B				
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-5"W-1	B				
	LSD P=.05									21.66	2.40	24.90	3.31
	Standard Deviation									11.90	1.32	13.69	1.82
	CV									19.39	11.73	28.14	19.52
	Replicate F									0.316	1.406	0.962	0.366
	Replicate Prob(F)									0.7361	0.2897	0.4148	0.7023
	Treatment F									15.625	31.982	3.310	14.868
	Treatment Prob(F)									0.0002	0.0001	0.0506	0.0002

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14 because error mean square = 0.

Southern Illinois University

Evaluation of Syngenta Residual Herbicides in a Liberty Link Soybean System.

Trial ID: 17-19B-S40 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Syngenta (EHLSoy1-2017).
2. Ratings:
   CI 7, 14 and 21 DA-A, and CI 7, 14 and 21 DA-B, rate all plots each time.
   WC 0, 14, 21, and 28 DA-B and at harvest, rate all plots each time.
3. Yield required for ROI.
4. Photos at each WC timing.
5. Application B is 3-5 inch weeds, perhaps 3 inch weeds with a PRE and 5 inch weeds without a PRE.
   Application C is 3-5 inch weeds as needed.
6. Rate before spray application B.

Rainfall following application A was 0.22" over 1 day, begining 8 hours after application.
Rainfall following application B was 1.1" over 2 days, begining 25 hours after application.
The first significant rainfall event (greater than 0.05") following application C was 0.33" on 7/5, 9 days after application.

CI 6 DA-C was slight chlorosis in the upper leaves.

Yield area per plot = 22' x 5'.

Pictures available from 6/5 (9 DA-A), 6/19 (6 DA-B/23 DA-A), and 7/6 (20 DA-B/6 DA-C).

Southern Illinois University

Evaluate the Length of Residual Control of s-metolachlor Containing Premixes on Amaranthus and Grasses.

Trial ID: 17-2A-ME50 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-26-17
Completion Date: 8-10-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.515939 N
Longitude of LL Corner °: 89.839936 W
Altitude of LL Corner, Unit: 435.00 FT
Angle y-axis to North °: 0.00

Objectives:

Demonstrate the length of residual control of s-metolachlor and Syngenta s-metolachlor containing premixes on amaranthus species and grasses versus competitive alternatives.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 39X7 **BBCH Scale:** BSOY
Description: RR2X

Planting Date: 5-26-17
Planting Method: SEEDED

Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 67.4 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 3 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 28 FT **Total Plot Length:** 28 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 02a_2013
% OM: 2.5 **Texture:** SIL silt loam
pH: 6.7 **Soil Name:** Pierron
CEC: 6

Additional Measured Elements

Element	Quantity	Unit
P1	65	lb/A
K	262	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
2.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
3.	5-6-17					7	DAY	43	87	F
4.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
5.	5-13-17					7	DAY	51	87	F
6.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
7.	5-20-17					7	DAY	50	80	F
8.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
9.	5-27-17					7	DAY	55	87	F
10.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
11.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
12.	6-3-17					7	DAY	54	89	F
13.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
14.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
15.	6-17-17					7	DAY	62	92	F
16.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
17.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
18.	6-24-17					7	DAY	53	91	F
19.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
20.	7-1-17					7	DAY	60	93	F
21.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
22.	7-8-17					7	DAY	67	98	F
23.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
24.	7-15-17					7	DAY	60	91	F
25.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
26.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
27.	7-22-17					7	DAY	69	99	F
28.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
29.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
30.	7-29-17					7	DAY	61	83	F
31.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
32.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
33.	8-5-17					7	DAY	55	87	F
34.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
35.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
36.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
37.	8-12-17					7	DAY	56	84	F
38.	8-14-17	0.3	IN	RAIN	rain	1	DAY			

Comment:
Moisture and weather data provided by the weather station located on the Belleville Research Station, via Illiois Climate Network; supplemented with hourly data provided by Scott Air Force Base 2.5 miles north. More detailed weather data will be provided upon request.

Application Description

	A	B
Application Date:	5-27-17	6-16-17
Appl. Start Time:	10:30	10:20
Appl. Stop Time:	10:50	10:25
Interval to Prev. Appl., Unit:		20 DAYS
Application Method:	Spray	Spray
Application Timing:	PRE	21DA-A
Application Placement:	BROSOI	BROFOL
Applied By:	MCG	RLS
Air Temperature, Unit:	81 F	84 F
% Relative Humidity:	58	69
Wind Velocity, Unit:	7 MPH	9 MPH
Wind Direction:	SE	S
Dew Presence (Y/N):		N
Soil Temperature, Unit:	69 F	75 F
Soil Moisture:		NORMAL
% Cloud Cover:	0	0
Next Moisture Occurred On:	5-27-17	6-18-17
Time to Next Moisture, Unit:	6 HR	48 HR

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	v1
Stage Minimum, Percent:		v1
Stage Maximum, Percent:		v2
Height, Unit:		3 IN
Height Minimum, Maximum:		3 4

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:	NA	4
Stage Minimum, Percent:		COT
Stage Maximum, Percent:		4
Height, Unit:		1 IN
Height Minimum, Maximum:		0.3 1.5
Density, Unit:		0.01 FT2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:	NA	8
Stage Minimum, Percent:		4
Stage Maximum, Percent:		10
Height, Unit:		2 IN
Height Minimum, Maximum:		0.5 4
Density, Unit:		1 FT2
Pest 3 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:	NA	1
Stage Minimum, Percent:		1
Stage Maximum, Percent:		3
Height, Unit:		1 IN
Height Minimum, Maximum:		0.5 4

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	XR
Nozzle Size:	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

Evaluate the Length of Residual Control of s-metolachlor Containing Premixes on Amaranthus and Grasses.

Trial ID: 17-2A-ME50 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
	Pest Code															
	Crop Code									GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									6-9-17	6-15-17	6-29-17	7-7-17	7-14-17	7-21-17	8-10-17
	Rating Type									Injury	Injury	Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									14 DA-A	19 DA-A	33 DA-A	41 DA-A	48 DA-A	55 DA-A	75 DA-A
	Trt-Eval Interval										0 DA-B	14 DA-B	21 DA-B	28 DA-B	35 DA-B	56 DA-B
1	DUAL MAGNUM	7.62	EC	1.24	lb ai/a	1.3	pt/a	PRE	A	0.0 a	30.0 ab	23.3 a	0.0 a	0.0 a	0.0 a	0.0 a
	DUAL MAGNUM	7.62	EC	1.24	lb ai/a	1.3	pt/a	21DA-A	B							
2	DUAL MAGNUM	7.62	EC	1.43	lb ai/a	1.5	pt/a	PRE	A	0.0 a	33.3 ab	1.7 b	0.0 a	0.0 a	0.0 a	0.0 a
3	ME-TOO-LACHLOR	8	EC	1.5	lb ai/a	1.5	pt/a	PRE	A	0.0 a	30.0 ab	2.3 b	0.0 a	0.0 a	0.0 a	0.0 a
4	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	PRE	A	0.0 a	30.0 ab	0.7 b	0.0 a	0.0 a	0.0 a	0.0 a
5	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	PRE	A	0.0 a	21.7 c	3.3 b	0.0 a	0.0 a	0.0 a	0.0 a
6	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A	0.0 a	26.7 bc	0.7 b	0.0 a	0.0 a	0.0 a	0.0 a
7	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	0.0 a	35.0 a	1.7 b	0.0 a	0.0 a	0.0 a	0.0 a
8	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	PRE	A	0.0 a	35.0 a	2.3 b	0.0 a	0.0 a	0.0 a	0.0 a
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	0.0 a	35.0 a	3.3 b	0.0 a	0.0 a	0.0 a	0.0 a
10	NONTREATED									0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LSD P=.05									.	6.74	11.77	.	.	.	.
	Standard Deviation									0.00	3.89	6.80	0.00	0.00	0.00	0.00
	CV									0.0	12.67	155.53	0.0	0.0	0.0	0.0
	Replicate F									0.000	6.840	0.809	0.000	0.000	0.000	0.000
	Replicate Prob(F)									1.0000	0.0071	0.4628	1.0000	1.0000	1.0000	1.0000
	Treatment F									0.000	4.000	3.345	0.000	0.000	0.000	0.000
	Treatment Prob(F)									1.0000	0.0088	0.0190	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14,17,21,25 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
Pest Code										AMATA	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
Crop Code																
Rating Date										6-9-17	6-15-17	6-29-17	7-7-17	7-14-17	7-21-17	8-10-17
Rating Type										Control	Control	Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing										14 DA-A	19 DA-A	33 DA-A	41 DA-A	48 DA-A	55 DA-A	75 DA-A
Trt-Eval Interval											0 DA-B	14 DA-B	21 DA-B	28 DA-B	35 DA-B	56 DA-B
1	DUAL MAGNUM	7.62	EC	1.24	lb ai/a	1.3	pt/a	PRE	A	98.7 a	99.0 a	98.7 a	98.3 a	98.0 a	96.0 ab	96.0 ab
	DUAL MAGNUM	7.62	EC	1.24	lb ai/a	1.3	pt/a	21DA-A	B							
2	DUAL MAGNUM	7.62	EC	1.43	lb ai/a	1.5	pt/a	PRE	A	99.0 a	99.0 a	96.3 a	97.0 a	96.3 a	96.3 ab	96.3 ab
3	ME-TOO-LACHLOR	8	EC	1.5	lb ai/a	1.5	pt/a	PRE	A	99.0 a	99.0 a	95.0 a	95.0 a	95.0 a	89.3 c	89.3 c
4	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	PRE	A	99.0 a	99.0 a	98.7 a	98.0 a	97.3 a	96.3 ab	96.3 ab
5	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	PRE	A	96.0 a	98.0 a	97.7 a	97.0 a	95.3 a	92.3 bc	92.3 bc
6	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A	99.0 a	98.3 a	97.0 a	97.7 a	97.0 a	94.7 abc	94.7 abc
7	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	99.0 a	99.0 a	99.0 a	99.0 a	99.0 a	99.0 a	99.0 a
8	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	PRE	A	99.0 a	99.0 a	98.3 a	98.3 a	98.3 a	97.3 ab	97.3 ab
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	99.0 a	98.7 a	99.0 a	99.0 a	99.0 a	99.0 a	99.0 a
10	NONTREATED									0.0	0.0	0.0	0.0	0.0	0.0	0.0
LSD P=.05										3.04	0.93	3.24	2.38	3.83	5.74	5.74
Standard Deviation										1.75	0.54	1.87	1.37	2.21	3.31	3.31
CV										1.78	0.55	1.92	1.4	2.28	3.47	3.47
Replicate F										0.878	1.143	1.024	1.553	1.868	1.015	1.015
Replicate Prob(F)										0.4346	0.3436	0.3816	0.2419	0.1866	0.3845	0.3845
Treatment F										0.959	1.429	1.633	2.496	1.340	2.669	2.669
Treatment Prob(F)										0.4989	0.2583	0.1920	0.0568	0.2933	0.0450	0.0450

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14,17,21,25 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
	Pest Code									SETFA	SETFA	SETFA	SETFA	SETFA	SETFA	SETFA
	Crop Code															
	Rating Date									6-9-17	6-15-17	6-29-17	7-7-17	7-14-17	7-21-17	8-10-17
	Rating Type									Control	Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									14 DA-A	19 DA-A	33 DA-A	41 DA-A	48 DA-A	55 DA-A	75 DA-A
	Trt-Eval Interval										0 DA-B	14 DA-B	21 DA-B	28 DA-B	35 DA-B	56 DA-B
1	DUAL MAGNUM	7.62	EC	1.24	lb ai/a	1.3	pt/a	PRE	A	99.0 a	98.3 a	97.3 a	96.3 a	92.3 ab	91.3 a	91.3 a
	DUAL MAGNUM	7.62	EC	1.24	lb ai/a	1.3	pt/a	21DA-A	B							
2	DUAL MAGNUM	7.62	EC	1.43	lb ai/a	1.5	pt/a	PRE	A	99.0 a	97.7 ab	96.3 a	96.3 a	94.0 a	90.0 a	90.0 a
3	ME-TOO-LACHLOR	8	EC	1.5	lb ai/a	1.5	pt/a	PRE	A	99.0 a	98.7 a	93.3 a	93.3 a	88.3 ab	85.7 a	85.0 a
4	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	PRE	A	99.0 a	98.0 ab	96.3 a	95.0 a	91.0 ab	90.3 a	94.7 a
5	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	PRE	A	93.3 c	81.7 c	65.0 b	65.0 b	46.7 c	36.7 b	55.0 b
6	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A	96.3 b	94.7 b	92.0 a	90.3 a	81.3 b	78.3 a	79.0 a
7	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	99.0 a	99.0 a	97.0 a	97.3 a	95.7 a	94.0 a	94.7 a
8	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	PRE	A	99.0 a	98.3 a	94.3 a	94.3 a	89.0 ab	85.7 a	93.0 a
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	99.0 a	98.7 a	97.3 a	96.3 a	94.3 a	92.3 a	93.0 a
10	NONTREATED									0.0	0.0	0.0	0.0	0.0	0.0	0.0
	LSD P=.05									2.26	3.49	5.67	7.19	12.06	15.93	23.04
	Standard Deviation									1.31	2.02	3.28	4.15	6.97	9.20	13.31
	CV									1.33	2.1	3.56	4.53	8.12	11.13	15.44
	Replicate F									0.022	0.683	4.854	2.631	2.381	0.517	2.488
	Replicate Prob(F)									0.9785	0.5194	0.0225	0.1028	0.1244	0.6057	0.1146
	Treatment F									6.935	22.853	29.884	18.076	14.483	11.346	2.759
	Treatment Prob(F)									0.0005	0.0001	0.0001	0.0001	0.0001	0.0001	0.0400

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14,17,21,25 because error mean square = 0.

Pest Code									AMBTR	AMBTR	AMBTR
Crop Code											
Rating Date									7-14-17	7-21-17	8-10-17
Rating Type									Control	Control	Control
Rating Unit									0-99	0-99	0-99
Rating Timing									48 DA-A	55 DA-A	75 DA-A
Trt-Eval Interval									28 DA-B	35 DA-B	56 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	DUAL MAGNUM	7.62	EC	1.24	lb ai/a	1.3	pt/a	PRE	A	85.0 a	70.0 a	70.0 a
	DUAL MAGNUM	7.62	EC	1.24	lb ai/a	1.3	pt/a	21DA-A	B			
2	DUAL MAGNUM	7.62	EC	1.43	lb ai/a	1.5	pt/a	PRE	A	76.7 a	61.7 a	61.7 a
3	ME-TOO-LACHLOR	8	EC	1.5	lb ai/a	1.5	pt/a	PRE	A	78.3 a	71.7 a	71.7 a
4	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	PRE	A	81.0 a	80.0 a	80.0 a
5	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	PRE	A	83.3 a	76.7 a	76.7 a
6	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A	83.3 a	73.3 a	73.3 a
7	BOUNDARY	6.5	EC	1.63	lb ai/a	1	qt/a	PRE	A	83.3 a	73.3 a	73.3 a
8	PREFIX	5.29	EC	1.32	lb ai/a	1	qt/a	PRE	A	88.3 a	83.3 a	83.3 a
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	83.3 a	78.3 a	78.3 a
10	NONTREATED									0.0	0.0	0.0
LSD P=.05										15.91	17.54	17.54
Standard Deviation										9.19	10.13	10.13
CV										11.14	13.64	13.64
Replicate F										2.545	2.065	2.065
Replicate Prob(F)										0.1097	0.1592	0.1592
Treatment F										0.429	1.179	1.179
Treatment Prob(F)										0.8867	0.3690	0.3690

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,14,17,21,25 because error mean square = 0.

Southern Illinois University

Evaluate the Length of Residual Control of s-metolachlor Containing Premixes on Amaranthus and Grasses.

Trial ID: 17-2A-ME50 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Syngenta (EHL/WHL Soy02-2017).
2. Ratings:
   CI 14 DA-A, CI 0, 14, 21, 28, 35 and 56 DA-B.
   WC 14 DA-A, WC 0, 14, 21, 28, 35 and 56 DA-B.
   Rate and photos before spray application B.
3. Yield not requested.
4. Photos requested 0 and 14 DA-B (21 and 35 DA-A).
   Take additional photos if plots are not showing differences or have not completely broke at 14 DA-B.
5. Blanket possible for grass control if needed late season.
   Blanket possible for big weeds, use Basagran.

Rainfall following application A was 0.22" over 1 day, begining 6 hours after application.
Rainfall following application B (trt 1 only) was 0.16" over 1 day, begining 48 hours after application.

There was no change in weed control from 7/21, 35 DA-A, to 8/10, 56 DA-B.

Photos available from 6/15 (19 DA-A) and 7/21 (55 DA-A).

Southern Illinois University

Scepter Postemergence Tank-Mixes for Residual Control of Weeds in Liberty Link Soybean.
Trial ID: 17-2C-MW90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-31-17
Completion Date: 7-28-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.514872 N
Longitude of LL Corner °: 89.840682 E
Altitude of LL Corner, Unit: 440.00 FT
Angle y-axis to North °: 0.00

Objectives:
Demonstrate performance of Scepter as a postemergence treatment for residual control of weeds in Liberty Link soybean.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Pioneer 37T09L **BBCH Scale:** BSOY
Description: LL

Planting Date: 5-31-17
Planting Method: SEEDED

Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 69 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 4 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 02C_2013
% OM: 2.7 **Texture:** SIL silt loam
pH: 6.1 **Soil Name:** Pierron
CEC: 7

Additional Measured Elements

Element	Quantity	Unit
P1	68	lb/A
K	322	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	39	70	F
2.	4-2-17	1.85	IN	RAIN	rain	5	DAY			
3.	4-8-17					7	DAY	39	81	F
4.	4-10-17	0.12	IN	RAIN	rain	1	DAY			
5.	4-14-17	0.21	IN	RAIN	rain	1	DAY			
6.	4-15-17					7	DAY	49	86	F
7.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
8.	4-22-17					7	DAY	41	80	F
9.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
10.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
11.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
12.	4-29-17					7	DAY	45	77	F
13.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
14.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
15.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
16.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
17.	5-6-17					7	DAY	43	87	F
18.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
19.	5-13-17					7	DAY	51	87	F
20.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
21.	5-20-17					7	DAY	50	80	F
22.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
23.	5-27-17					7	DAY	55	87	F
24.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
25.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
26.	6-3-17					7	DAY	54	89	F
27.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
28.	6-14-17	0.16	IN	RAIN	rain	1	DAY			
29.	6-15-17	0.94	IN	RAIN	rain	1	DAY			
30.	6-17-17					7	DAY	62	92	F
31.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
32.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
33.	6-24-17					7	DAY	53	91	F
34.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
35.	7-1-17					7	DAY	60	93	F
36.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
37.	7-8-17					7	DAY	67	98	F
38.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
39.	7-15-17					7	DAY	60	91	F
40.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
41.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
42.	7-22-17					7	DAY	69	99	F
43.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
44.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
45.	7-29-17					7	DAY	61	83	F

Application Description

	A
Application Date:	6-15-17
Appl. Start Time:	14:39
Appl. Stop Time:	15:06
Application Method:	Spray
Application Timing:	2-3"W
Application Placement:	BROFOL
Applied By:	CC
Air Temperature, Unit:	87 F
% Relative Humidity:	55
Wind Velocity, Unit:	8 MPH
Wind Direction:	NW
Dew Presence (Y/N):	N
Soil Temperature, Unit:	75 F
Soil Moisture:	AN
% Cloud Cover:	5
Next Moisture Occurred On:	6-18-17
Time to Next Moisture, Unit:	60 HR

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA
Stage Scale Used:	DESC
Stage Majority, Percent:	V1
Stage Minimum, Percent:	V1
Stage Maximum, Percent:	V2
Height, Unit:	4.5 IN
Height Minimum, Maximum:	4 5

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ABUTH W
Stage Majority, Percent:	2
Stage Minimum, Percent:	cot
Stage Maximum, Percent:	4
Height, Unit:	1 IN
Height Minimum, Maximum:	0.3 2
Density, Unit:	10 FT2
Pest 2 Code, Type, Scale:	AMATA W
Stage Majority, Percent:	4
Stage Minimum, Percent:	cot
Stage Maximum, Percent:	8
Height, Unit:	1.5 IN
Height Minimum, Maximum:	0.1 3
Density, Unit:	15 FT2
Pest 3 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	4
Stage Minimum, Percent:	2
Stage Maximum, Percent:	6
Height, Unit:	2 IN
Height Minimum, Maximum:	1 3
Density, Unit:	0.01 FT2
Pest 4 Code, Type, Scale:	SETFA W
Stage Majority, Percent:	4
Stage Minimum, Percent:	3
Stage Maximum, Percent:	5
Height, Unit:	3 IN
Height Minimum, Maximum:	2 6
Density, Unit:	1 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Nozzle Spacing, Unit:	20 IN
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Scepter Postemergence Tank-Mixes for Residual Control of Weeds in Liberty Link Soybean.
Trial ID: 17-2C-MW90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code												ABUTH	ABUTH	ABUTH
	Crop Code										GLXMA	GLXMA	GLXMA		
	Rating Date										6-21-17	6-29-17	7-11-17	6-29-17	7-11-17	7-28-17
	Rating Type										Injury	Injury	Injury	Control	Residual	Control
	Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing															
	Trt-Eval Interval										7 DA-A	14 DA-A	28 DA-A	14 DA-A	28 DA-A	42 DA-A
1	NONTREATED										0.0	0.0	0.0	0.0	0.0	0.0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A		1.3 e	2.5 d	0.0 a	90.0 b	67.5 c	50.0 b
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
3	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A		21.3 d	10.0 c	0.0 a	96.5 a	91.3 ab	83.8 a
	SCEPTER	70	WG	0.061	lb ai/a	1.4	oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
4	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A		45.0 a	22.5 ab	0.0 a	96.8 a	93.0 a	83.8 a
	CLASSIC	25	WG	0.00516	lb ai/a	0.33	oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A		18.8 d	10.0 c	0.0 a	91.5 b	76.3 c	60.0 b
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
6	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A		31.3 c	17.5 b	0.0 a	97.3 a	95.0 a	87.5 a
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	2-3"W	A							
	SCEPTER	70	WG	0.061	lb ai/a	1.4	oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
7	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A		38.8 b	25.0 a	0.0 a	95.0 a	78.8 bc	50.5 b
	PREFIX	5.29	EC	1.45	lb ai/a	2.2	pt/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
8	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A		33.8 bc	20.0 ab	2.5 a	97.5 a	93.8 a	84.5 a
	PREFIX	5.29	EC	1.45	lb ai/a	2.2	pt/a	2-3"W	A							
	SCEPTER	70	WG	0.061	lb ai/a	1.4	oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
	LSD P=.05									.	5.75	5.04	2.81	2.76	12.89	15.51
	Standard Deviation									.	3.87	3.39	1.89	1.86	8.68	10.44
	CV									.	14.26	22.09	529.15	1.96	10.2	14.62
	Replicate F										2.066	0.517	1.000	1.395	1.098	2.339
	Replicate Prob(F)										0.1406	0.6757	0.4155	0.2767	0.3755	0.1077
	Treatment F										57.397	22.759	1.000	10.409	6.208	10.762
	Treatment Prob(F)										0.0001	0.0001	0.4552	0.0001	0.0011	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 21,7 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMATA	AMATA	AMATA	AMATA	AMBTR	AMBTR	AMBTR
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMBTR	AMBTR	AMBTR
	Crop Code															
	Rating Date									6-29-17	7-11-17	7-11-17	7-28-17	6-29-17	7-11-17	7-28-17
	Rating Type									Control	Control	Residual	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing															
	Trt-Eval Interval									14 DA-A	28 DA-A	28 DA-A	42 DA-A	14 DA-A	28 DA-A	42 DA-A
1	NONTREATED									0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	90.5 d	83.8 cd	7.5 d	82.5 bc	98.3 a	93.3 a	92.3 a
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
3	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	93.3 cd	70.0 e	80.0 b	67.5 d	99.0 a	99.0 a	97.5 a
	SCEPTER	70	WG	0.061	lb ai/a	1.4	oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
4	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	95.0 bc	80.0 d	50.0 c	75.0 cd	98.5 a	98.0 a	97.5 a
	CLASSIC	25	WG	0.00516	lb ai/a	0.33	oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	97.5 ab	93.8 ab	99.0 a	93.8 a	98.5 a	98.5 a	96.8 a
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
6	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	97.0 ab	90.0 bc	99.0 a	86.0 b	98.5 a	97.5 a	96.5 a
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	2-3"W	A							
	SCEPTER	70	WG	0.061	lb ai/a	1.4	oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
7	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	99.0 a	98.5 a	99.0 a	98.8 a	99.0 a	99.0 a	99.0 a
	PREFIX	5.29	EC	1.45	lb ai/a	2.2	pt/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
8	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	99.0 a	97.5 a	99.0 a	97.5 a	98.5 a	98.0 a	98.0 a
	PREFIX	5.29	EC	1.45	lb ai/a	2.2	pt/a	2-3"W	A							
	SCEPTER	70	WG	0.061	lb ai/a	1.4	oz/a	2-3"W	A							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A							
	LSD P=.05									3.43	6.29	11.11	7.68	1.17	5.52	6.41
	Standard Deviation									2.31	4.23	7.48	5.17	0.79	3.72	4.32
	CV									2.41	4.83	9.81	6.02	0.8	3.81	4.46
	Replicate F									1.291	0.459	0.404	0.442	0.822	0.815	0.381
	Replicate Prob(F)									0.3077	0.7140	0.7517	0.7259	0.4988	0.5021	0.7679
	Treatment F									7.492	23.894	89.361	20.710	0.516	1.156	1.004
	Treatment Prob(F)									0.0004	0.0001	0.0001	0.0001	0.7886	0.3716	0.4527

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 21,7 because error mean square = 0.

Pest Code										SETFA	SETFA	SETFA
Crop Code												
Rating Date										6-29-17	7-11-17	7-28-17
Rating Type										Control	Control	Control
Rating Unit										0-99	0-99	0-99
Rating Timing												
Trt-Eval Interval										14 DA-A	28 DA-A	42 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									0.0	0.0	0.0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	99.0 a	97.3 a	96.5 bc
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A			
3	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	99.0 a	96.8 a	95.0 c
	SCEPTER	70	WG	0.061	lb ai/a	1.4	oz/a	2-3"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A			
4	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	99.0 a	97.5 a	96.8 b
	CLASSIC	25	WG	0.00516	lb ai/a	0.33	oz/a	2-3"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A			
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	99.0 a	99.0 a	99.0 a
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	2-3"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A			
6	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	99.0 a	98.0 a	97.8 ab
	DUAL MAGNUM	7.62	EC	1.19	lb ai/a	20	fl oz/a	2-3"W	A			
	SCEPTER	70	WG	0.061	lb ai/a	1.4	oz/a	2-3"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A			
7	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	99.0 a	99.0 a	99.0 a
	PREFIX	5.29	EC	1.45	lb ai/a	2.2	pt/a	2-3"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A			
8	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	oz/a	2-3"W	A	99.0 a	98.5 a	98.5 a
	PREFIX	5.29	EC	1.45	lb ai/a	2.2	pt/a	2-3"W	A			
	SCEPTER	70	WG	0.061	lb ai/a	1.4	oz/a	2-3"W	A			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-3"W	A			
LSD P=.05										.	1.81	1.53
Standard Deviation										0.00	1.22	1.03
CV										0.0	1.24	1.06
Replicate F										0.000	1.995	2.022
Replicate Prob(F)										1.0000	0.1509	0.1468
Treatment F										0.000	2.083	8.416
Treatment Prob(F)										1.0000	0.1064	0.0002

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 21,7 because error mean square = 0.

Southern Illinois University

Scepter Postemergence Tank-Mixes for Residual Control of Weeds in Liberty Link Soybean.

Trial ID: 17-2C-MW90 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: AMVAC (17C05H048).
2. Ratings:
   CI 7, 14 and 28 DA-A.
   WC 14, 28 and 42 DA-A.
   Rate burndown and residual separately or otherwise note if lack of control is new emergence, per weed.
   This is a residual control trial.
3. Yield not requested.
4. Photos requested, differences in residual control, sometime before crop canopy.
5. Application A is 2-3 inch weeds, before soybean V3 stage, and 7-21 DAP.

Rainfall following application A was 0.16" over 1 day begining 60 hours after application.

Note regarding 7/11 (28 DA-A) rating: At this timing ABUTH and AMATA were emerging in plots with no soil residual; AMATA was rated for both burndown and residual control, ABUTH was rated for residual control only.

AMBTR pressure was not consistent across the trial area.

Southern Illinois University

Two-Pass Programs for Enlist Soybean - Demonstration.
Trial ID: 17-10A-E170 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-31-17
Completion Date: 7-28-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.515897 N
Longitude of LL Corner °: 89.841234 W
GPS Precision: G GPS for trial site

Objectives:
Demonstrate the weed control and crop tolerance of a two-pass system in Enlist soybean.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: _____ **BBCH Scale:** BSOY
Description: Enlist

Planting Date: 5-31-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 69 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** NONRAN Non-Randomized
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 10A_2013
% OM: 2.8 **Texture:** SIL silt loam
pH: 6.5 **Soil Name:** Pierron
CEC: 9

Additional Measured Elements

Element	Quantity	Unit
P1	87	lb/A
K	340	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-29-17					7	DAY	45	77	F
2.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
3.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
4.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
5.	5-6-17					7	DAY	43	87	F
6.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
7.	5-13-17					7	DAY	51	87	F
8.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
9.	5-20-17					7	DAY	50	80	F
10.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
11.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
12.	5-27-17					7	DAY	55	87	F
13.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
14.	6-3-17					7	DAY	54	89	F
15.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
16.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
17.	6-17-17					7	DAY	62	92	F
18.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
19.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
20.	6-24-17					7	DAY	53	91	F
21.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
22.	7-1-17					7	DAY	60	93	F
23.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
24.	7-8-17					7	DAY	67	98	F
25.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
26.	7-15-17					7	DAY	60	91	F
27.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
28.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
29.	7-22-17					7	DAY	69	99	F
30.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
31.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
32.	7-29-17					7	DAY	61	83	F
33.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
34.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
35.	8-5-17					7	DAY	55	87	F
36.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
37.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
38.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
39.	8-12-17					7	DAY	56	84	F

Comment:
Rainfall was recorded on station and provided by Illinois Climate Network. Air temperature was recorded at Scott Air Force Base 2.5 miles north and provided by NOAA's National Centers for Environmental Information. Air temperatures given are summarized as weekly high and low, detailed weather data is available on request.

Application Description

	A	B
Application Date:	6-1-17	6-20-17
Appl. Start Time:	13:55	10:00
Appl. Stop Time:	14:55	11:15
Interval to Prev. Appl., Unit:		19 DAYS
Application Method:	Spray	Spray
Application Timing:	PRE	3-4"W
Application Placement:	BROSOI	BROFOL
Applied By:	RLS	RLS
Air Temperature, Unit:	80 F	85 F
% Relative Humidity:	38	41
Wind Velocity, Unit:	0 MPH	6 MPH
Wind Direction:	0	SW
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	69 F	74 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	60	0
Next Moisture Occurred On:	6-4-17	6-23-17
Time to Next Moisture, Unit:	72 HR	3 DAY

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	V2
Stage Minimum, Percent:		V2
Stage Maximum, Percent:		V2
Height, Unit:		7 IN
Height Minimum, Maximum:		6 8

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W
Stage Majority, Percent:	N/A	2
Stage Minimum, Percent:		COT
Stage Maximum, Percent:		3
Height, Unit:		1.5 IN
Height Minimum, Maximum:		0.3 3
Density, Unit:		0.5 FT2
Pest 2 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:	N/A	N/A
Pest 3 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:	N/A	3
Stage Minimum, Percent:		1
Stage Maximum, Percent:		4
Height, Unit:		3.5 IN
Height Minimum, Maximum:		0.3 4.5
Density, Unit:		0.025 FT2

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	TTI
Nozzle Size:	8002	11002
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

Two-Pass Programs for Enlist Soybean - Demonstration.
Trial ID: 17-10A-E170 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code												
	Crop Code									GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									6-19-17	7-6-17	7-18-17	7-28-17
	Rating Type									Stunt	Stunt	Stunt	Stunt
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing												
	Trt-Eval Interval									0 DA-B	14 DA-B	28 DA-B	42 DA-B
1	NONTREATED									0	0	0	0
2	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	0 f	0 g	0 a	0 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
3	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	0 f	0 g	2 a	0 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
4	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	0 f	0 fg	1 a	0 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
5	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	0 f	4 cde	1 a	0 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
6	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	8 abc	2 efg	5 a	2 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
7	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	10 ab	3 def	1 a	0 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
8	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	12 a	3 def	2 a	0 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
9	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	12 a	7 ab	1 a	0 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
10	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	6 cd	0 g	0 a	0 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
11	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	3 def	2 efg	1 a	0 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
12	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	2 ef	2 efg	2 a	0 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
13	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	3 def	5 bcd	1 a	0 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
14	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	5 cde	4 cde	1 a	0 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									GLXMA	GLXMA	GLXMA	GLXMA
	Crop Code									6-19-17	7-6-17	7-18-17	7-28-17
	Rating Date									Stunt	Stunt	Stunt	Stunt
	Rating Type									0-99	0-99	0-99	0-99
	Rating Unit												
	Rating Timing												
	Trt-Eval Interval									0 DA-B	14 DA-B	28 DA-B	42 DA-B
15	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	4 de	2 d-g	0 a	0 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
16	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	7 bcd	2 efg	2 a	0 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
17	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	3 def	0 g	3 a	0 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
18	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A	0 f	2 efg	1 a	0 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
19	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	0 f	9 a	1 a	0 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
20	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	3 def	6 abc	1 a	0 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
	LSD P=.05									4.0	2.8	3.3	1.1
	Standard Deviation									2.4	1.7	2.0	0.7
	CV									58.36	60.25	153.99	754.98
	Treatment F									8.273	7.162	1.087	1.000
	Treatment Prob(F)									0.0001	0.0001	0.4000	0.4807

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ABUTH	ABUTH	ABUTH	ABUTH
	Pest Code									ABUTH	ABUTH	ABUTH	ABUTH
	Crop Code												
	Rating Date									6-17-17	7-6-17	7-18-17	7-28-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing												
	Trt-Eval Interval									0 DA-B	14 DA-B	28 DA-B	42 DA-B
1	NONTREATED									0	0	0	0
2	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	97 a	98 a	99 ab	98 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
3	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	98 a	99 a	98 abc	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
4	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	96 a	97 a	97 bcd	97 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
5	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	96 a	99 a	99 ab	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
6	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	98 a	99 a	99 ab	99 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
7	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	98 a	99 a	99 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
8	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	99 a	99 a	99 ab	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
9	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	98 a	99 a	98 abc	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
10	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	94 a	98 a	97 bcd	99 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
11	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	96 a	99 a	99 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
12	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	91 a	97 a	97 d	97 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
13	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	94 a	99 a	98 abc	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
14	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	96 a	98 a	98 a-d	98 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									ABUTH	ABUTH	ABUTH	ABUTH
	Crop Code												
	Rating Date									6-17-17	7-6-17	7-18-17	7-28-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing												
	Trt-Eval Interval									0 DA-B	14 DA-B	28 DA-B	42 DA-B
15	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	97 a	99 a	99 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
16	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	97 a	98 a	97 d	97 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
17	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	73 b	99 a	98 a-d	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
18	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A	30 c	99 a	98 a-d	98 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
19	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	78 b	99 a	98 a-d	98 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
20	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	97 a	98 a	97 cd	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B				
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B				
	LSD P=.05									7.7	1.4	1.6	1.9
	Standard Deviation									4.7	0.8	1.0	1.2
	CV									5.12	0.84	0.98	1.2
	Treatment F									36.438	1.311	1.948	1.025
	Treatment Prob(F)									0.0001	0.2357	0.0416	0.4563

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMATA	AMATA	AMATA	AMATA	SETFA	SETFA	SETFA	SETFA
	Pest Code									AMATA	AMATA	AMATA	AMATA	SETFA	SETFA	SETFA	SETFA
	Crop Code																
	Rating Date									6-17-17	7-6-17	7-18-17	7-28-17	6-17-17	7-6-17	7-18-17	7-28-17
	Rating Type									Control	Control	Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing																
	Trt-Eval Interval									0 DA-B	14 DA-B	28 DA-B	42 DA-B	0 DA-B	14 DA-B	28 DA-B	42 DA-B
1	NONTREATED									0	0	0	0	0	0	0	0
2	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	98 bc	99 a	98 a	99 a	96 a	99 a	98 a	99 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
3	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	99 a	99 a	99 a	99 a	90 a	99 a	98 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
4	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	97 c	99 a	99 a	99 a	95 a	98 a	97 a	97 b
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
5	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	99 a	99 a	99 a	99 a	95 a	98 a	98 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B								
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
6	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	99 a	99 a	97 b	98 a	96 a	98 a	97 a	98 b
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
7	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	99 a	99 a	99 a	99 a	96 a	99 a	98 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
8	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	99 a	99 a	98 a	99 a	97 a	99 a	98 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
9	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	99 a	99 a	99 a	99 a	97 a	99 a	98 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B								
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
10	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	99 ab	99 a	99 a	99 a	97 a	99 a	98 a	99 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
11	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	99 a	99 a	98 ab	99 a	96 a	99 a	98 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
12	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	99 a	99 a	98 a	98 a	95 a	99 a	98 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
13	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A	99 a	99 a	99 a	99 a	96 a	99 a	98 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B								
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
14	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	99 a	99 a	99 a	99 a	98 a	98 a	99 a	99 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
	Pest Code									AMATA	AMATA	AMATA	AMATA	SETFA	SETFA	SETFA	SETFA
	Crop Code																
	Rating Date									6-17-17	7-6-17	7-18-17	7-28-17	6-17-17	7-6-17	7-18-17	7-28-17
	Rating Type									Control	Control	Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing																
	Trt-Eval Interval									0 DA-B	14 DA-B	28 DA-B	42 DA-B	0 DA-B	14 DA-B	28 DA-B	42 DA-B
15	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	99 a	99 a	98 a	99 a	98 a	99 a	98 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
16	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	99 a	99 a	99 a	99 a	98 a	98 a	98 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
17	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	99 a	99 a	98 ab	99 a	98 a	99 a	98 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
18	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A	99 a	99 a	99 a	99 a	98 a	99 a	98 a	99 a
	ENLIST DUO	3.3	SL	1.93	lb ae/a	75	fl oz/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
19	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	99 a	99 a	99 a	99 a	99 a	99 a	98 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B								
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
20	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	98 ab	99 a	99 a	99 a	94 a	99 a	98 a	99 a
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W	B								
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W	B								
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3-4"W	B								
	LSD P=.05									0.9	0.4	1.0	0.7	5.4	0.9	1.2	0.8
	Standard Deviation									0.6	0.2	0.6	0.4	3.3	0.6	0.7	0.5
	CV									0.57	0.23	0.64	0.4	3.38	0.57	0.75	0.52
	Treatment F									1.914	0.889	2.005	0.901	1.203	1.241	0.742	2.252
	Treatment Prob(F)									0.0458	0.5940	0.0354	0.5810	0.3062	0.2800	0.7481	0.0175

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Southern Illinois University

Two-Pass Programs for Enlist Soybean - Demonstration.
Trial ID: 17-10A-E170 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: SIU/Dow (Enlist demonstration).
2. Ratings:
   CI 0, 14 and 28 DA-B. Describe injury symptoms.
   WC 0, 14, 28 and 42 DA-B.
   Rate before spray application B, need not be exactly 0 DA-B, but as PRE treatments are breaking.
3. No yield, crop destruct before R4, get as many ratings as you can before crop destruct.
4. Photos of one replication at each rating, same rep each time.
5. STEWARDED - report planting and crop destruction on a timely basis.
6. Nozzles for application B, choose either TTI or AIXR, record what was used.
7. This trial is primarily for touring, ratings and photos would be great, but don't knock yourself out.
   Touring can be done from either side, non-randomized, just staggered.

Rainfall following application A was 0.40" over 2 days beginning 72 hours after application. Rainfall following application B was 0.03" over 1 day beginning 3 days after application. The first substantial rain event following application B was 0.33" over 2 days beginning on 7-5-17.

CI 0 DA-B (6/19) was primarily stunt and leaft crinkling.
CI 28 DA-B (7/18) was stunt.

Dense crop canopy 42 DA-B (7/28) was suppressing weed competition at this rating.

Southern Illinois University

ADAMA Soybean Herbicide Programs for use in Liberty Link Soybean.

Trial ID: 17-2C-W120 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Official Trial ID:

Conducted Under GEP: No

Trial Status: F one-year/final
Initiation Date: 5-31-17
Completion Date: 7-11-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Objectives:
Demonstrate the efficacy and flexibility of the ADAMA soybean portfolio in Libery Link.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: P37T09L **BBCH Scale:** BSOY
Description: LL **Maturity Group:** III
Planting Date: 5-31-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 69 F
Soil Moisture: NORMAL
Seed Bed: FINE

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** IPOHE Ipomoea hederacea (L.) Jacq.
Common Name: morningglory, ivyleaf

Pest 4 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 02C_2013
% OM: 2.7 **Texture:** SIL silt loam
pH: 6.1 **Soil Name:** Pierron
CEC: 7

Additional Measured Elements

Element	Quantity	Unit
P1	68	lb/A
K	322	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-29-17					7	DAY	45	77	F
2.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
3.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
4.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
5.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
6.	5-6-17					7	DAY	43	87	F
7.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
8.	5-13-17					7	DAY	51	87	F
9.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
10.	5-20-17					7	DAY	50	80	F
11.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
12.	5-27-17					7	DAY	55	87	F
13.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
14.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
15.	6-3-17					7	DAY	54	89	F
16.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
17.	6-14-17	0.16	IN	RAIN	rain	1	DAY			
18.	6-15-17	0.94	IN	RAIN	rain	1	DAY			
19.	6-17-17					7	DAY	62	92	F
20.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
21.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
22.	6-24-17					7	DAY	53	91	F
23.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
24.	7-1-17					7	DAY	60	93	F
25.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
26.	7-8-17					7	DAY	67	98	F
27.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
28.	7-15-17					7	DAY	60	91	F
29.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
30.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
31.	7-22-17					7	DAY	69	99	F
32.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
33.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
34.	7-29-17					7	DAY	61	83	F

Application Description

	A	B	C
Application Date:	6-1-17	6-15-17	6-15-17
Appl. Start Time:	14:50	13:50	13:50
Appl. Stop Time:	15:20	14:26	14:26
Interval to Prev. Appl., Unit:		14 DAYS	14 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	POST-1	POST-2
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	BCS	CC	CC
Air Temperature, Unit:	80 F	87 F	87 F
% Relative Humidity:	43	55	55
Wind Velocity, Unit:	0 MPH	8 MPH	8 MPH
Wind Direction:		NNW	NNW
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	69 F	75 F	75 F
Soil Moisture:	NORMAL	ABONOR	ABONOR
% Cloud Cover:	50	0	0
Next Moisture Occurred On:	6-4-17	6-18-17	6-18-17
Time to Next Moisture, Unit:	3 DAY	3 DAY	3 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	V1	V1
Stage Minimum, Percent:		V1	V1
Stage Maximum, Percent:		V2	V2
Height, Unit:		3.5 IN	3.5 IN
Height Minimum, Maximum:		3 4	3 4

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:		2	2
Stage Minimum, Percent:		COTY	COTY
Stage Maximum, Percent:		3	3
Height, Unit:		1.5 IN	1 IN
Height Minimum, Maximum:		0.5 2	0.4 2
Density, Unit:		15 FT2	10 FT2
Pest 2 Code, Type, Scale:	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:		3	
Stage Minimum, Percent:		COTY	
Stage Maximum, Percent:		6	
Height, Unit:		1 IN	
Height Minimum, Maximum:		0.2 2	
Density, Unit:		10 FT2	
Pest 3 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W
Stage Majority, Percent:			1
Stage Minimum, Percent:			COTY
Stage Maximum, Percent:			2
Height, Unit:			1.5 IN
Height Minimum, Maximum:			0.5 2
Density, Unit:			0.05 FT2
Pest 4 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:		3	3
Stage Minimum, Percent:		2	1
Stage Maximum, Percent:		4	4
Height, Unit:		2.5 IN	2 IN
Height Minimum, Maximum:		1 5	0.3 4
Density, Unit:		20 FT2	0.05 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Incorporation Equip.:	NA	NA	NA
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

ADAMA Soybean Herbicide Programs for use in Liberty Link Soybean.

Trial ID: 17-2C-W120 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Official Trial ID:

Conducted Under GEP: No

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
Pest Code												
Crop Code										GLXMA	GLXMA	GLXMA
Rating Date										6-15-17	6-26-17	7-11-17
Rating Type										Injury	Injury	Injury
Rating Unit										0-99	0-99	0-99
Rating Timing										0 DA-B+C		
Trt-Eval Interval										14 DA-A	11 DA-B+C	26 DA-B+C
1	NONTREATED									0.0	0.0	0.0
2	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST1	B	0.0 d	0.5 d	0.0 a
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST1	B			
3	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	0.5 d	0.5 d	0.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
4	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	10.0 a	6.3 c	0.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
5	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	5.0 bc	0.5 d	0.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
6	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	7.5 ab	13.8 b	0.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
7	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	4.5 c	16.3 b	0.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
8	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	7.5 ab	7.5 c	0.0 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
9	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	5.0 bc	20.0 a	0.0 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C			
	RUMBLE	1.88	EC	0.235	lb ai/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
10	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	2.5 cd	5.0 c	0.0 a
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
LSD P=.05										2.52	2.53	.
Standard Deviation										1.73	1.73	0.00
CV										36.62	22.18	0.0
Replicate F										1.028	2.036	0.000
Replicate Prob(F)										0.3979	0.1357	1.0000
Treatment F										14.805	71.029	0.000
Treatment Prob(F)										0.0001	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=20
Could not calculate LSD (% mean diff) for columns 16,7,12,13 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
Pest Code										ABUTH	ABUTH	ABUTH
Crop Code												
Rating Date										6-15-17	6-26-17	7-11-17
Rating Type										Control	Control	Control
Rating Unit										0-99	0-99	0-99
Rating Timing										0 DA-B+C		
Trt-Eval Interval										14 DA-A	11 DA-B+C	26 DA-B+C
1	NONTREATED									0.0	0.0	0.0
2	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST1	B	0.0 e	87.5 c	72.5 c
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST1	B			
3	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	80.0 ab	98.5 ab	95.0 ab
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
4	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	63.8 cd	99.0 a	98.5 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
5	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	67.5 bcd	97.0 b	93.0 b
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
6	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	55.0 d	99.0 a	98.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
7	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	72.5 bc	99.0 a	99.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
8	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	92.5 a	99.0 a	98.8 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
9	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	93.8 a	99.0 a	99.0 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C			
	RUMBLE	1.88	EC	0.235	lb ai/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
10	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	88.8 a	99.0 a	99.0 a
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
LSD P=.05										14.19	1.53	4.99
Standard Deviation										9.72	1.05	3.42
CV										14.26	1.08	3.61
Replicate F										0.047	2.286	1.321
Replicate Prob(F)										0.9864	0.1044	0.2907
Treatment F										35.285	52.059	25.374
Treatment Prob(F)										0.0001	0.0001	0.0001

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Missing data estimates are included in columns:Average=20
Could not calculate LSD (% mean diff) for columns 16,7,12,13 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMBTR
	Crop Code													
	Rating Date									6-15-17	6-26-17	6-26-17	7-11-17	7-11-17
	Rating Type									Control	Control	Residual	Control	Residual
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									0 DA-B+C				
	Trt-Eval Interval									14 DA-A	11 DA-B+C	11 DA-B+C	26 DA-B+C	26 DA-B+C
1	NONTREATED									0.0	0.0	0.0	0.0	0.0
2	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST1	B	0.0 b	90.0 b	0.0 b	65.0 b	75.0 b
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST1	B					
3	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99.0 a	99.0 a	99.0 a	97.5 a	65.0 b
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
4	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	99.0 a	99.0 a	99.0 a	98.8 a	97.7 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
5	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	99.0 a	99.0 a	99.0 a	96.8 a	96.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
6	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	99.0 a	99.0 a	99.0 a	98.8 a	97.7 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
7	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	99.0 a	99.0 a	99.0 a	99.0 a	97.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
8	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99.0 a	99.0 a	99.0 a	99.0 a	95.7 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A					
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
9	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99.0 a	99.0 a	99.0 a	99.0 a	98.7 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A					
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C					
	RUMBLE	1.88	EC	0.235	lb ai/a	1	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
10	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99.0 a	99.0 a	99.0 a	99.0 a	98.7 a
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	PRE	A					
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
	LSD P=.05									.	.	.	3.44	16.33
	Standard Deviation									0.00	0.00	0.00	2.36	9.39
	CV									0.0	0.0	0.0	2.49	10.29
	Replicate F									0.000	0.000	0.000	2.391	0.669
	Replicate Prob(F)									1.0000	1.0000	1.0000	0.0937	0.5269
	Treatment F									0.000	0.000	0.000	90.041	5.196
	Treatment Prob(F)									1.0000	1.0000	1.0000	0.0001	0.0030

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=20
Could not calculate LSD (% mean diff) for columns 16,7,12,13 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									IPOHE	IPOHE	IPOHE
	Crop Code											
	Rating Date									6-15-17	6-26-17	7-11-17
	Rating Type									Control	Residual	Residual
	Rating Unit									0-99	0-99	0-99
	Rating Timing									0 DA-B+C		
	Trt-Eval Interval									14 DA-A	11 DA-B+C	26 DA-B+C
1	NONTREATED									0.0	0.0	0.0
2	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST1	B	0.0 c	0.0 d	72.3 b
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST1	B			
3	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	0.0 c	76.3 c	50.0 c
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
4	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	0.0 c	95.5 ab	95.8 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
5	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0.0 c	76.3 c	50.0 c
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
6	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0.0 c	92.5 b	87.5 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
7	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	6.3 c	94.5 ab	94.8 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
8	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	25.0 b	93.0 b	93.3 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
9	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	62.5 a	97.0 a	98.0 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C			
	RUMBLE	1.88	EC	0.235	lb ai/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
10	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	73.8 a	96.8 a	96.3 a
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C			
	LSD P=.05									18.10	3.22	11.40
	Standard Deviation									12.40	2.21	7.81
	CV									66.65	2.75	9.53
	Replicate F									1.234	1.663	1.217
	Replicate Prob(F)									0.3193	0.2016	0.3249
	Treatment F									22.395	797.620	25.496
	Treatment Prob(F)									0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=20
Could not calculate LSD (% mean diff) for columns 16,7,12,13 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	SETFA	SETFA	SETFA	OVERALL	OVERALL
	Pest Code									SETFA	SETFA	SETFA	OVERALL	OVERALL
	Crop Code													
	Rating Date									6-15-17	6-26-17	7-11-17	7-11-17	7-11-17
	Rating Type									Control	Control	Control	Control	Residual
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									0 DA-B+C				
	Trt-Eval Interval									14 DA-A	11 DA-B+C	26 DA-B+C	26 DA-B+C	26 DA-B+C
1	NONTREATED									0.0	0.0	0.0	0.0	0.0
2	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST1	B	0.0 d	99.0 a	98.5 a	57.5 c	0.0 d
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST1	B					
3	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	91.3 bc	98.8 a	94.3 b	86.3 b	91.3 c
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
4	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	91.3 bc	99.0 a	95.5 b	94.5 a	95.0 b
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
5	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	95.3 ab	99.0 a	98.5 a	88.0 b	95.0 b
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
6	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	94.0 ab	99.0 a	99.0 a	94.5 a	98.0 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
7	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	97.3 a	99.0 a	98.8 a	97.5 a	98.8 a
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
8	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	97.3 a	99.0 a	99.0 a	96.0 a	98.5 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A					
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
9	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	97.8 a	99.0 a	99.0 a	98.0 a	99.0 a
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A					
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C					
	RUMBLE	1.88	EC	0.235	lb ai/a	1	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
10	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	88.8 c	99.0 a	99.0 a	97.5 a	99.0 a
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	PRE	A					
	LIBERTY 280	2.34	EC	0.51	lb ai/a	28	fl oz/a	POST2	C					
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	POST2	C					
	LSD P=.05									4.95	0.24	1.67	5.08	1.46
	Standard Deviation									3.39	0.17	1.14	3.48	1.00
	CV									4.06	0.17	1.17	3.87	1.16
	Replicate F									0.434	1.000	0.824	1.905	2.858
	Replicate Prob(F)									0.7309	0.4098	0.4934	0.1557	0.0581
	Treatment F									345.273	1.000	9.725	54.818	4202.903
	Treatment Prob(F)									0.0001	0.4613	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=20
Could not calculate LSD (% mean diff) for columns 16,7,12,13 because error mean square = 0.

Southern Illinois University

ADAMA Soybean Herbicide Programs for use in Liberty Link Soybean.

Trial ID: 17-2C-W120 Location: Belleville Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Official Trial ID:

Conducted Under GEP: No

Trial Comments

1. Protocol: ADAMA (TBD Liberty Soybean).
2. Ratings:
   CI 14 and 28 DA-A, CI 14 and 28 DA-C, rate all plots on the same day in the same column, describe injury symptoms.
   WC 14 and 28 DA-A, WC 14 and 28 DA-C, rate all plots on the same day in the same column.
   Make an overall assessment of the level of activation of the PRE herbicides (good, fair, poor).
   Get at least one rating of the PRE (A) before the POST2 (C) and rate residual control at 28 DA-A even if the POST2 has been applied.
   Rate before spray application C was not requsted, but a good idea.
   Rate burndown and residual separately at 14 DA-C.
   Rate overall control at 28 DA-C and note if any lack of control is new emergence or regrowth, per weed.
3. Yield is optional.
4. Photos not requested.
5. POST1 and POST2 are 1-3 inch weeds in plots without and with a PRE respectively.
   We expect plots without a PRE will get sprayed sooner, but if they are all ready on the same day, okay to spray on the same day.

Injury symptoms among plots with injury ratings were similar: drawstringing, crinkling of leaves, and minor stunting.

Rainfall following application was 0.4" over 2 days beginning 72 hours after application. The next rainfall event did not occur until June 14, two weeks after the application.

Lack of AMBTR and IPOHE control at 28 DA-C was due to new emergence.

POST 1 (B) and POST 2 (C) applications were made on the same day. Ratings for POST applications are indicated by "DA-B+C" in the assessment data.

Southern Illinois University

ADAMA Soybean Herbicide Programs for use in Xtend and Roundup Ready Soybean.
Trial ID: 17-51E-M90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-31-17
Completion Date: 7-14-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Objectives:
Demonstrate the efficacy and flexibility of the ADAMA soybean portfolio.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 39X7 **BBCH Scale:** BSOY
Description: RR2X **Maturity Group:** III
Planting Date: 5-31-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 69 F
Soil Moisture: NORMAL
Seed Bed: FINE

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 4 Type: W **Code:** IPOHE Ipomoea hederacea (L.) Jacq.
Common Name: morningglory, ivyleaf

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 27 FT **Total Plot Length:** 27 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 51E_2013
% OM: 2.8 **Texture:** SIL silt loam
pH: 6.1 **Soil Name:** Pierron
CEC: 10

Additional Measured Elements

Element	Quantity	Unit
P1	87	lb/A
K	343	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-29-17					7	DAY	45	77	F
2.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
3.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
4.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
5.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
6.	5-6-17					7	DAY	43	87	F
7.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
8.	5-13-17					7	DAY	51	87	F
9.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
10.	5-20-17					7	DAY	50	80	F
11.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
12.	5-27-17					7	DAY	55	87	F
13.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
14.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
15.	6-3-17					7	DAY	54	89	F
16.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
17.	6-14-17	0.16	IN	RAIN	rain	1	DAY			
18.	6-15-17	0.94	IN	RAIN	rain	1	DAY			
19.	6-17-17					7	DAY	62	92	F
20.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
21.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
22.	6-24-17					7	DAY	53	91	F
23.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
24.	7-1-17					7	DAY	60	93	F
25.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
26.	7-8-17					7	DAY	67	98	F
27.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
28.	7-15-17					7	DAY	60	91	F
29.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
30.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
31.	7-22-17					7	DAY	69	99	F
32.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
33.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
34.	7-29-17					7	DAY	61	83	F

	Application Description				
	A	B	C	D	E
Application Date:	6-1-17	6-16-17	6-16-17	6-16-17	6-16-17
Appl. Start Time:	11:25	8:13	8:13	8:13	8:13
Appl. Stop Time:	11:50	9:50	9:50	9:50	9:50
Interval to Prev. Appl., Unit:		15 DAYS	15 DAYS	15 DAYS	15 DAYS
Application Method:	Spray	Spray	Spray	Spray	Spray
Application Timing:	PRE	POST1	POST1	POST1	POST1
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	RLS	RLS	RLS	RLS	RLS
Air Temperature, Unit:	78 F	82 F	82 F	82 F	82 F
% Relative Humidity:	36	67	67	67	67
Wind Velocity, Unit:	0 MPH	9 MPH	9 MPH	9 MPH	9 MPH
Wind Direction:		ESE	ESE	ESE	ESE
Dew Presence (Y/N):	N	Y	Y	Y	Y
Soil Temperature, Unit:	69 F	75 F	75 F	75 F	75 F
Soil Moisture:	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL
% Cloud Cover:	50	0	0	0	0
Next Moisture Occurred On:	6-4-17	6-18-17	6-18-17	6-18-17	6-18-17
Time to Next Moisture, Unit:	3 DAY	41 HR	41 HR	41 HR	41 HR

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	VC	VC	VC	VC
Stage Minimum, Percent:		VC	VC	VC	VC
Stage Maximum, Percent:		V1	V1	V1	V1
Height, Unit:		3 IN	3 IN	3 IN	3 IN
Height Minimum, Maximum:		2.5 4	2.5 4	2.5 4	2.5 4

Pest Stage At Each Application

	A	B	C	D	E
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:		4	4	4	4
Stage Minimum, Percent:		3	3	3	3
Stage Maximum, Percent:		6	6	6	6
Height, Unit:		1.5 IN	1.5 IN	1.5 IN	1.5 IN
Height Minimum, Maximum:		0.6 2.5	0.6 2.5	0.6 2.5	0.6 2.5
Density, Unit:		17 FT2	17 FT2	17 FT2	17 FT2
Pest 2 Code, Type, Scale:	AMATA W	AMATA W	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:		4.5	4.5	4.5	4.5
Stage Minimum, Percent:		COT	COT	COT	COT
Stage Maximum, Percent:		19	19	19	19
Height, Unit:		1.5 IN	1.5 IN	1.5 IN	1.5 IN
Height Minimum, Maximum:		0.3 6	0.3 6	0.3 6	0.3 6
Density, Unit:		0.2 FT2	0.2 FT2	0.2 FT2	0.2 FT2
Pest 3 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:		6	6	6	6
Stage Minimum, Percent:		4	4	4	4
Stage Maximum, Percent:		8	8	8	8
Height, Unit:		2 IN	2 IN	2 IN	2 IN
Height Minimum, Maximum:		0.5 2.5	0.5 2.5	0.5 2.5	0.5 2.5
Density, Unit:		0.6 FT2	0.6 FT2	0.6 FT2	0.6 FT2
Pest 4 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W	IPOHE W	IPOHE W
Stage Majority, Percent:		3	3	3	3
Stage Minimum, Percent:		COT	COT	COT	COT
Stage Maximum, Percent:		6	6	6	6
Height, Unit:		1 IN	1 IN	1 IN	1 IN
Height Minimum, Maximum:		0.6 1.5	0.6 1.5	0.6 1.5	0.6 1.5
Density, Unit:		0.3 FT2	0.3 FT2	0.3 FT2	0.3 FT2

Application Equipment

	A	B	C	D	E
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	TTI	TTI	TTI	TTI
Nozzle Size:	8002	11002	11002	11002	11002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA

Southern Illinois University

ADAMA Soybean Herbicide Programs for use in Xtend and Roundup Ready Soybean.
Trial ID: 17-51E-M90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code											
	Crop Code									GLXMA	GLXMA	GLXMA
	Rating Date									6-15-17	6-29-17	7-14-17
	Rating Type									Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									14 DA-A	14 DA-B+D	28 DA-B+D
1	NONTREATED									0	0	0
2	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 a	0 e	0 d
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
3	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 a	17 a	13 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST1*	C			
4	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 a	13 ab	15 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST1*	C			
5	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 a	6 c	7 bc
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST1*	C			
6	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	0 a	0 e	0 d
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
7	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	1 a	3 cde	0 d
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
8	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	1 de	0 d
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
9	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	12 b	3 cd
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2*	E			
10	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	1 a	13 ab	12 ab
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2*	E			
11	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A	0 a	5 cd	0 d
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E			
12	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A	0 a	15 ab	12 ab
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E			
	RUMBLE	1.88	EC	0.235	lb ai/a	1	pt/a	POST2*	E			
13	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	PRE	A	0 a	4 cde	0 d
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 12 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code											
	Crop Code									GLXMA	GLXMA	GLXMA
	Rating Date									6-15-17	6-29-17	7-14-17
	Rating Type									Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									14 DA-A	14 DA-B+D	28 DA-B+D
14	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	0 a	0 e	0 d
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
15	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	2 a	2 de	0 d
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
16	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	0 e	0 d
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
17	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	15 ab	10 ab
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2*	E			
18	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	13 ab	7 bc
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2*	E			
	LSD P=.05									1.3	4.0	5.5
	Standard Deviation									0.8	2.4	3.3
	CV									331.35	34.61	72.27
	Replicate F									1.548	4.220	4.287
	Replicate Prob(F)									0.2281	0.0236	0.0224
	Treatment F									1.835	20.837	8.691
	Treatment Prob(F)									0.0705	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 12 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
Pest Code										ABUTH	ABUTH	ABUTH
Crop Code												
Rating Date										6-15-17	6-29-17	7-14-17
Rating Type										Control	Control	Control
Rating Unit										0-99	0-99	0-99
Rating Timing												
Trt-Eval Interval										14 DA-A	14 DA-B+D	28 DA-B+D
1	NONTREATED									0	0	0
2	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 f	90 c	68 c
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
3	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 f	98 ab	92 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST1*	C			
4	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 f	98 ab	95 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST1*	C			
5	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 f	90 c	80 b
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST1*	C			
6	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	23 ef	99 a	97 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
7	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	50 a-d	99 a	98 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
8	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	30 de	99 a	97 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
9	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	43 b-e	99 ab	98 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2*	E			
10	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	42 cde	99 a	99 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2*	E			
11	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A	67 ab	99 a	99 a
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E			
12	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A	72 a	99 a	99 a
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E			
	RUMBLE	1.88	EC	0.235	lb ai/a	1	pt/a	POST2*	E			
13	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	PRE	A	65 abc	99 a	99 a
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 12 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									ABUTH	ABUTH	ABUTH
	Crop Code											
	Rating Date									6-15-17	6-29-17	7-14-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									14 DA-A	14 DA-B+D	28 DA-B+D
14	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	30 de	98 ab	97 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
15	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	67 ab	99 a	98 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
16	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	33 de	96 b	97 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
17	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	43 b-e	98 ab	99 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2*	E			
18	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	43 b-e	99 a	98 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2*	E			
	LSD P=.05									24.0	2.4	8.1
	Standard Deviation									14.4	1.5	4.9
	CV									40.35	1.5	5.17
	Replicate F									0.066	0.612	1.499
	Replicate Prob(F)									0.9364	0.5486	0.2385
	Treatment F									8.818	11.973	8.346
	Treatment Prob(F)									0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 12 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
Pest Code										AMATA	AMATA	AMATA
Crop Code												
Rating Date										6-15-17	6-29-17	7-14-17
Rating Type										Control	Control	Control
Rating Unit										0-99	0-99	0-99
Rating Timing												
Trt-Eval Interval										14 DA-A	14 DA-B+D	28 DA-B+D
1	NONTREATED									0	0	0
2	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 b	99 a	97 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
3	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 b	99 a	97 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST1*	C			
4	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 b	99 a	96 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST1*	C			
5	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 b	99 a	98 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST1*	C			
6	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	99 a	99 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
7	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	99 a	99 a	99 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
8	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	99 a	99 a	99 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
9	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	99 a	99 a	99 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2*	E			
10	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	99 a	99 a	99 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2*	E			
11	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A	99 a	99 a	99 a
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E			
12	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A	99 a	99 a	99 a
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E			
	RUMBLE	1.88	EC	0.235	lb ai/a	1	pt/a	POST2*	E			
13	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	PRE	A	99 a	99 a	99 a
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D			
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 12 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									AMATA	AMATA	AMATA
	Crop Code											
	Rating Date									6-15-17	6-29-17	7-14-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									14 DA-A	14 DA-B+D	28 DA-B+D
14	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	99 a	98 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
15	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
16	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
17	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2*	E			
18	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E			
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2*	E			
	LSD P=.05									0.3	.	2.0
	Standard Deviation									0.2	0.0	1.2
	CV									0.27	0.0	1.23
	Replicate F									0.485	0.000	0.279
	Replicate Prob(F)									0.6202	1.0000	0.7581
	Treatment F									138852.923	0.000	1.935
	Treatment Prob(F)									0.0001	1.0000	0.0548

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 12 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code									AMBTR	AMBTR	AMBTR	IPOHE	IPOHE	IPOHE
	Crop Code														
	Rating Date									6-15-17	6-29-17	7-14-17	6-15-17	6-29-17	7-14-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									14 DA-A	14 DA-B+D	28 DA-B+D	14 DA-A	14 DA-B+D	28 DA-B+D
1	NONTREATED									0	0	0	0	0	0
2	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 a	99 a	99 a	0 a	90 a-d	90 abc
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C						
3	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 a	99 a	99 a	0 a	89 cd	94 ab
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C						
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST1*	C						
4	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 a	99 a	99 a	0 a	89 bcd	95 ab
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C						
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST1*	C						
5	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST1	B	0 a	99 a	99 a	0 a	80 ef	87 abc
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST1*	C						
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST1*	C						
6	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	0 a	99 a	99 a	0 a	80 ef	89 abc
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
7	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	0 a	99 a	99 a	0 a	98 a	98 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
8	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	99 a	99 a	7 a	85 de	87 abc
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
9	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	99 a	99 a	0 a	90 a-d	98 a
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2*	E						
10	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	99 a	99 a	0 a	92 a-d	95 ab
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2*	E						
11	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A	0 a	99 a	99 a	0 a	94 abc	96 ab
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A						
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E						
12	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	PRE	A	0 a	99 a	99 a	0 a	98 a	98 a
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A						
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E						
	RUMBLE	1.88	EC	0.235	lb ai/a	1	pt/a	POST2*	E						
13	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	PRE	A	0 a	99 a	99 a	23 a	98 ab	98 a
	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A						
	XTENDIMAX	2.9	SL	0.5	lb ae/a	1.38	pt/a	POST2	D						
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
	PARALLEL PCS	8	EC	1	lb ai/a	1	pt/a	POST2*	E						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 12 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code									AMBTR	AMBTR	AMBTR	IPOHE	IPOHE	IPOHE
	Crop Code														
	Rating Date									6-15-17	6-29-17	7-14-17	6-15-17	6-29-17	7-14-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									14 DA-A	14 DA-B+D	28 DA-B+D	14 DA-A	14 DA-B+D	28 DA-B+D
14	GLORY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	0 a	98 a	96 c	0 a	73 f	63 e
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
15	RANSOM	68.7	WG	0.344	lb ai/a	8	oz/a	PRE	A	10 a	99 a	99 a	0 a	92 a-d	86 bc
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
16	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	5 a	97 a	96 bc	0 a	58 g	43 f
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
17	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	98 a	98 ab	33 a	78 ef	68 de
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
	PUMMEL	5.25	SL	1.31	lb ai/a	2	pt/a	POST2*	E						
18	TAILWIND	6.5	SC	1.22	lb ai/a	1.5	pt/a	PRE	A	0 a	99 a	99 a	0 a	85 de	79 cd
	ROUNDUP POWERMAX	4.5	SL	0.98	lb ae/a	28	fl oz/a	POST2*	E						
	TORMENT	2.5	SL	0.313	lb ae/a	1	pt/a	POST2*	E						
	LSD P=.05									7.6	1.1	1.7	25.2	8.5	12.0
	Standard Deviation									4.6	0.6	1.0	15.2	5.1	7.2
	CV									518.81	0.66	1.02	411.46	5.94	8.35
	Replicate F									1.895	0.605	0.958	1.248	0.589	0.144
	Replicate Prob(F)									0.1668	0.5524	0.3942	0.3006	0.5608	0.8668
	Treatment F									1.000	1.872	3.039	1.161	11.932	13.165
	Treatment Prob(F)									0.4807	0.0642	0.0036	0.3472	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 12 because error mean square = 0.

Trial Comments

1. Protocol: ADAMA (TBD Xtend Soybeans).
2. Ratings:
   CI 14 and 28 DA-A, rate all plots,
   14 DA-A might be before any POST, okay to rate POST-onlys as zero.
   28 DA-A should be after POSTs B+C and before POSTs D+E, rate early if needed.
   CI 14 and 28 DA-B+C, CI 14 and 28 DA-D+E, rate on two dates in the same column.
   Make notes about crop injury symptoms.
   WC 14 and 28 DA-A, rate all plots,
   14 DA-A might be before any POST, okay to rate POST-onlys as zero.
   28 DA-A should be after POSTs B+C and before POSTs D+E, rate early if needed.
   WC 14 and 28 DA-B+C, WC 14 and 28 DA-D+E, rate on two dates in the same column.
   Make an overall assessment of the level of activation of the PRE herbicides (good, fair, poor).
3. Yield is optional.
4. Photos not requested.
5. POST1 and POST2 are 1-3 inch weeds in plots without and with a PRE respectively.
   We expect plots without a PRE will get sprayed sooner, but if they are all ready on the same day, okay to spray on the same day.
   POST1 (B) and POST1* (C) should be sprayed on the same day, but not tank-mixed, unless approved.
   POST2 (D) and POST2* (E) should be sprayed on the same day, but not tank-mixed, unless approved.

PRE activation at this site was good; the first rainfall following application was 0.4" over 2 days beginning about 72 hours after application. The next rainfall event did not occur until June 14, two weeks after the application.

The following crop injury symptoms were observed in the corresponding treatments 14 DA-B+C+D+E:

- **Necrosis and drawstringing in treatment 4.**
- **Leaf crinkling in treatments 5, 7, 8, 11, and 13.**
- **Stunting in treatments 9, 10, 17, and 18.**
- **Stunting and leaf crinkling in treatment 12.**

POST 1 (B+C) and POST 2 (D+E) were sprayed on the same day; ratings are indicated as "DA-B+D" in the assesement data.

AMATA regrowth and improved IPOHE control observed at 28 DA-B+D.

Southern Illinois University

Glyphosate-Resistant Palmer Amaranth Control with Two-Pass Programs.
Trial ID: 17-COL-TwoPass-2017 Location: Collinsville, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-17-17
Completion Date: 8-14-17

Trial Location

City: Collinsville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62234

Latitude of LL Corner °: 38.688585 N
Longitude of LL Corner °: 90.018255 W
Altitude of LL Corner, Unit: 430.00 FT
Angle y-axis to North °: 3.83

Objectives:
To demonstrate and evaluate glyphosate-resistant Palmer amaranth control with two-pass programs.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: See treatment list **BBCH Scale:** BSOY
Description: See comments
Planting Date: 5-16-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 68 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMAPA Amaranthus palmeri S.Wats.
Common Name: amaranth, Palmer
Description: glyphosate-resistant Palmer amaranth

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	Non-crop	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: Collinsville IL 2015
% Sand: 28.4 **% OM:** 2.17 **Texture:** SIL silt loam
% Silt: 63.54 **pH:** 7.7 **Soil Name:** Littleton/Haymond/Orion
% Clay: 8.06 **CEC:** 11.6

Additional Measured Elements

Element	Quantity	Unit
P1	204	lb/A
K	476	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 15 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	39	70	F
2.	4-2-17	1.85	IN	RAIN	rain	5	DAY			
3.	4-8-17					7	DAY	39	81	F
4.	4-10-17	0.12	IN	RAIN	rain	1	DAY			
5.	4-14-17	0.21	IN	RAIN	rain	1	DAY			
6.	4-15-17					7	DAY	49	86	F
7.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
8.	4-22-17					7	DAY	41	80	F
9.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
10.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
11.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
12.	4-29-17					7	DAY	45	77	F
13.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
14.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
15.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
16.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
17.	5-6-17					7	DAY	43	87	F
18.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
19.	5-13-17					7	DAY	51	87	F
20.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
21.	5-20-17					7	DAY	50	80	F
22.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
23.	5-27-17					7	DAY	55	87	F
24.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
25.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
26.	6-3-17					7	DAY	54	89	F
27.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
28.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
29.	6-17-17					7	DAY	62	92	F
30.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
31.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
32.	6-24-17					7	DAY	53	91	F
33.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
34.	7-1-17					7	DAY	60	93	F
35.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
36.	7-8-17					7	DAY	67	98	F
37.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
38.	7-15-17					7	DAY	60	91	F
39.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
40.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
41.	7-22-17					7	DAY	69	99	F
42.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
43.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
44.	7-29-17					7	DAY	61	83	F
45.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
46.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
47.	8-5-17					7	DAY	55	87	F
48.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
49.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
50.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
51.	8-12-17					7	DAY	56	84	F
52.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
53.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
54.	8-19-17					7	DAY	56	94	F
55.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
56.	8-26-17					7	DAY	56	86	F
57.	8-28-17	0.08	IN	RAIN	rain	1	DAY			

Comment:
Moisture and weather data provided by the weather station located on the Belleville Research Station, via Illiois Climate Network; supplemented with hourly data provided by Scott Air Force Base 2.5 miles north. More detailed weather data will be provided upon request.

Application Description

	A	B	C	D	E	F	G
Application Date:	5-17-17	6-7-17	6-7-17	6-19-17	6-19-17		
Appl. Start Time:	6:35	7:40	7:40	11:00	11:00		
Appl. Stop Time:	6:50	7:45	7:45	11:30	11:30		
Interval to Prev. Appl., Unit:		21 DAYS	21 DAYS	12 DAYS	DAYS		
Application Method:	Spray	Spray	Spray	Spray	Spray	Spray	Spray
Application Timing:	PRE	3-4"W-1	3-4"W-1	3-4"W-2	3-4"W-2	3-4"W-3	3-4"W-3
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	MCG	MCG	MCG	MCG	MCG		
Air Temperature, Unit:	72 F	67 F	67 F	82 F	82 F		
% Relative Humidity:	72	56	56	40	40		
Wind Velocity, Unit:	3 MPH	7 MPH	7 MPH	4 MPH	4 MPH		
Wind Direction:	SE	N	N	W	W		
Dew Presence (Y/N):	N	Y	Y	N	N		
Soil Temperature, Unit:	78 F	70 F	70 F	74 F	74 F		
Soil Moisture:	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL		
% Cloud Cover:	20	0	0	0	0		
Next Moisture Occurred On:	5-18-17	6-17-17	6-17-17	6-30-17	6-30-17		
Time to Next Moisture, Unit:	1 DAY	10 DAY	10 DAY	11 DAY	11 DAY		

Crop Stage At Each Application

	A	B	C	D	E	F	G
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC	DESC	DESC		
Stage Majority, Percent:	NA	V2	V2	V5	V5		
Stage Minimum, Percent:		V1	V1	V5	V5		
Stage Maximum, Percent:		V2	V2	V6	V6		
Height, Unit:		4 IN	4 IN	8.5 IN	8.5 IN		
Height Minimum, Maximum:		3 4	3 4	8 9	8 9		

Pest Stage At Each Application

	A	B	C	D	E	F	G
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W	AMAPA W	AMAPA W	AMAPA W	AMAPA W
Stage Majority, Percent:	6	6	6	8	8		
Stage Minimum, Percent:	1	1	1	4	4		
Stage Maximum, Percent:	18	18	18	8	8		
Height, Unit:	2 IN	2 IN	2 IN	5 IN	5 IN		
Height Minimum, Maximum:	0.3 4	0.3 4	0.3 4	2 8	2 8		
Density, Unit:	50 FT2	50 FT2	50 FT2	0.01 FT2	0.01 FT2		

Application Equipment

	A	B	C	D	E	F	G
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	TTI	XR	TTI	XR	TTI
Nozzle Size:	8002	8002	11002	8002	11002	8002	11002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN	20 IN		
Boom Length, Unit:	6.67 FT	6.67 FT	6.67 FT	6.67 FT	6.67 FT	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA

Southern Illinois University

Glyphosate-Resistant Palmer Amaranth Control with Two-Pass Programs.
Trial ID: 17-COL-TwoPass-2017 Location: Collinsville, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code											
	Crop Code									GLXMA	GLXMA	GLXMA
	Rating Date									5-31-17	6-14-17	6-19-17
	Rating Type									Injury	STDRED	STDRED
	Rating Unit									0-99	0-99	0-99
	Rating Timing									14 DA-A	28 DA-A	12 DA-B+C
	Trt-Eval Interval											
1	XTEND SOYBEAN									0	0	0
	NONTREATED											
2	XTEND SOYBEAN									58 b	35 b	14 b
	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A			
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-3	G			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-3	G			
3	XTEND SOYBEAN									83 a	66 a	59 a
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A			
	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A			
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-3	G			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-3	G			
4	XTEND SOYBEAN									20 de	31 bc	0 c
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A			
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-3	G			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-3	G			
5	XTEND SOYBEAN									12 ef	5 de	0 c
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A			
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-2	E			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	E			
6	XTEND SOYBEAN									0 g	9 de	0 c
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-1	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	C			
7	LIBERTY LINK SOYBEAN									0	0	0
	NONTREATED											
8	LIBERTY LINK SOYBEAN									25 d	11 cde	5 bc
	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-3	F			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-3	F			
9	LIBERTY LINK SOYBEAN									43 c	21 bcd	10 b
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A			
	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-3	F			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-3	F			
10	LIBERTY LINK SOYBEAN									3 g	0 e	0 c
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-3	F			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-3	F			
11	LIBERTY LINK SOYBEAN									4 fg	1 de	0 c
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-2	D			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	D			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 6 because error mean square = 0.

Pest Code											
Crop Code									GLXMA	GLXMA	GLXMA
Rating Date									5-31-17	6-14-17	6-19-17
Rating Type									Injury	STDRED	STDRED
Rating Unit									0-99	0-99	0-99
Rating Timing									14 DA-A	28 DA-A	12 DA-B+C
Trt-Eval Interval											
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
12	LIBERTY LINK SOYBEAN									0 g	0 e	0 c
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-1	B		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B		
LSD P=.05										8.7	21.2	8.8
Standard Deviation										6.0	14.6	6.0
CV										24.54	81.15	69.03
Replicate F										2.468	3.182	0.937
Replicate Prob(F)										0.0836	0.0399	0.4366
Treatment F										86.919	8.408	36.548
Treatment Prob(F)										0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 6 because error mean square = 0.

Pest Code									AMAPA	AMAPA	AMAPA	AMAPA	AMAPA
Crop Code													
Rating Date									5-31-17	6-14-17	6-19-17	7-3-17	7-3-17
Rating Type									Control	Residual	Control	Control	Control
Rating Unit									0-99	0-99	0-99	0-99	0-99
Rating Timing									14 DA-A	28 DA-A	12 DA-B+C	14 DA-D+E	26 DA-B+C
Trt-Eval Interval													
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	XTEND SOYBEAN									0	0	0	0	
	NONTREATED													
2	XTEND SOYBEAN									99 a	99 a		99 a	
	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A					
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-3	G					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-3	G					
3	XTEND SOYBEAN									99 a	99 a		99 a	
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A					
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-3	G					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-3	G					
4	XTEND SOYBEAN									99 a	99 a		99 a	
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-3	G					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-3	G					
5	XTEND SOYBEAN									99 a	98 a		97 a	
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-2	E					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	E					
6	XTEND SOYBEAN											54 b		80 a
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-1	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	C					
7	LIBERTY LINK SOYBEAN									0	0		0	
	NONTREATED													
8	LIBERTY LINK SOYBEAN									99 a	74 a		99 a	
	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-3	F					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-3	F					
9	LIBERTY LINK SOYBEAN									99 a	99 a		99 a	
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-3	F					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-3	F					
10	LIBERTY LINK SOYBEAN									99 a	99 a		99 a	
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-3	F					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-3	F					
11	LIBERTY LINK SOYBEAN									99 a	96 a		98 a	
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-2	D					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	D					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 6 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMAPA	AMAPA	AMAPA	AMAPA	AMAPA
	Crop Code													
	Rating Date									5-31-17	6-14-17	6-19-17	7-3-17	7-3-17
	Rating Type									Control	Residual	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									14 DA-A	28 DA-A	12 DA-B+C	14 DA-D+E	26 DA-B+C
	Trt-Eval Interval													
12	LIBERTY LINK SOYBEAN											90 a		86 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
	LSD P=.05									.	26.0	18.8	2.5	17.6
	Standard Deviation									0.0	17.7	8.4	1.7	7.8
	CV									0.0	18.56	11.62	1.76	9.43
	Replicate F									0.000	0.871	0.284	0.929	1.814
	Replicate Prob(F)									1.0000	0.4715	0.8359	0.4442	0.3185
	Treatment F									0.000	0.935	37.657	0.968	1.271
	Treatment Prob(F)									1.0000	0.5008	0.0087	0.4788	0.3416

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 6 because error mean square = 0.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval									AMAPA 7-17-17 Control 0-99 28 DA-D+E	AMAPA 8-2-17 Control 0-99 56 DA-B+C	AMAPA 8-14-17 Control 0-99 56 DA-D-E
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	XTEND SOYBEAN NONTREATED									0		0
2	XTEND SOYBEAN									99 a		99 a
	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A			
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-3	G			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-3	G			
3	XTEND SOYBEAN									99 a		97 a
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A			
	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A			
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-3	G			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-3	G			
4	XTEND SOYBEAN									99 a		99 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A			
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-3	G			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-3	G			
5	XTEND SOYBEAN									98 a		95 a
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A			
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-2	E			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	E			
6	XTEND SOYBEAN										85 a	
	DICAMBA DGA	4	SL	0.5	lb ae/a	1	pt/a	3-4"W-1	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	C			
7	LIBERTY LINK SOYBEAN NONTREATED									0		0
8	LIBERTY LINK SOYBEAN									99 a		99 a
	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-3	F			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-3	F			
9	LIBERTY LINK SOYBEAN									99 a		99 a
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A			
	ZIDUA	85	WG	0.133	lb ai/a	2.5	oz/a	PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-3	F			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-3	F			
10	LIBERTY LINK SOYBEAN									99 a		99 a
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-3	F			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-3	F			
11	LIBERTY LINK SOYBEAN									98 a		97 a
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-2	D			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	D			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 6 because error mean square = 0.

Pest Code										AMAPA	AMAPA	AMAPA
Crop Code												
Rating Date										7-17-17	8-2-17	8-14-17
Rating Type										Control	Control	Control
Rating Unit										0-99	0-99	0-99
Rating Timing										28 DA-D+E	56 DA-B+C	56 DA-D-E
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
12	LIBERTY LINK SOYBEAN										79 a	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	3-4"W-1	B			
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B			
LSD P=.05										1.5	22.9	3.9
Standard Deviation										1.0	10.2	2.7
CV										1.02	12.4	2.71
Replicate F										0.527	0.515	0.397
Replicate Prob(F)										0.6684	0.7002	0.7564
Treatment F										1.095	0.758	1.562
Treatment Prob(F)										0.4019	0.4481	0.2013

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 6 because error mean square = 0.

Southern Illinois University

Glyphosate-Resistant Palmer Amaranth Control with Two-Pass Programs.
Trial ID: 17-COL-TwoPass-2017 Location: Collinsville, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: SIU/RFK.
2. Ratings:
   CI 14 and 28 DA-A (PRE); 14, 28, and 56 DA-B+C (3-4"W-1); 14, 28, and 56 DA-D+E (3-4"W-2).
   WC 14 and 28 DA-A (PRE); 14, 28, and 56 DA-B+C (3-4"W-1); 14, 28, and 56 DA-D+E (3-4"W-2).
   Rate before spray applications D and E.
3. No yield;
4. Soybean varieties are Pioneer P37T09L (LL) and AG 39X7 (RR2X).
5. Applications A (PRE), B (Liberty), and D (Liberty) use XR 8002 nozzles.
   Applications C (Dicamba) and E (Dicamba) use TTI 11002 nozzels.
6. Photos as appropriate.

   Revised 6-20-17, for POST timings, sprayed Boundary plots first, F+G added.

   Applications F+G were not necessary in 2017 and were not sprayed.

Southern Illinois University

FeXapan in Conventional-Till Two-Pass Programs for RR2X Soybeans.
Trial ID: 17-KRC-DPX-133 Location: Kuehn Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-25-17
Completion Date: 9-29-17

Trial Location

City: Dowell **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62927

Latitude of LL Corner °: 37.932504 N
Longitude of LL Corner °: 89.245954 W
Altitude of LL Corner, Unit: 430.00 FT
Angle y-axis to North °: 0.00

Objectives:
Evaluate FeXapan in two-pass conventional-till programs for weed control and crop tolerance in RR2X soybean.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Asgrow 39X7 **BBCH Scale:** BSOY
Description: RR2X

Planting Date: 5-25-17
Planting Method: SEEDED

Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 67 F
Soil Moisture: NORMAL
Seed Bed: SMOTRA

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 2 Type: W **Code:** PANDI Panicum dichotomiflorum Michx.
Common Name: panicum, fall

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 29 LB/A, P2O5 74 LB/A, K2O 160 LB/A

Soil Description

Description Name: KRC1_2011 all avaeraged
% OM: 2.3 **Texture:** SIL silt loam
pH: 6.7 **Soil Name:** Hoyleton/Wynoose
CEC: 9.8

Additional Measured Elements

Element	Quantity	Unit
P1	59	lb/A
K	181	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: SOUTHERN IL AIRPORT (93810) **Distance, Unit:** 11 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-8-17					7	DAY	37	82	F
2.	4-10-17	0.09	IN	RAIN	rain	2	DAY			
3.	4-15-17					7	DAY	50	81	F
4.	4-16-17	0.85	IN	RAIN	rain	3	DAY			
5.	4-20-17	1.6	IN	RAIN	rain	3	DAY			
6.	4-22-17					7	DAY	41	77	F
7.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
8.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
9.	4-29-17					7	DAY	45	82	F
10.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
11.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
12.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
13.	5-6-17					7	DAY	42	83	F
14.	5-13-17				rain	7	DAY	50	85	F
15.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
16.	5-20-17					7	DAY	51	84	F
17.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
18.	5-27-17					7	DAY	56	87	F
19.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
20.	6-3-17					7	DAY	54	87	F
21.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
22.	6-10-17					7	DAY	57	92	F
23.	6-15-17	0.13	IN	RAIN	rain	1	DAY			
24.	6-17-17					7	DAY	61	90	F
25.	6-18-17	0.8	IN	RAIN	rain	1	DAY			
26.	6-22-17	1.02	IN	RAIN	rain	2	DAY			
27.	6-24-17					7	DAY	54	87	F
28.	6-30-17	0.02	IN	RAIN	rain	1	DAY			
29.	7-1-17					7	DAY	63	90	F
30.	7-5-17	0.9	IN	RAIN	rain	3	DAY			
31.	7-8-17					7	DAY	67	93	F
32.	7-13-17	0.69	IN	RAIN	rain	2	DAY			
33.	7-15-17					7	DAY	61	95	F
34.	7-17-17	0.56	IN	RAIN	rain	1	DAY			
35.	7-22-17				rain	7	DAY	69	94	F
36.	7-23-17	0.03	IN	RAIN	rain	1	DAY			
37.	7-27-17	0.02	IN	RAIN	rain	1	DAY			
38.	7-29-17					7	DAY	55	89	F
39.	8-1-17	0.06	IN	RAIN	rain	1	DAY			
40.	8-3-17	0.03	IN	RAIN	rain	1	DAY			
41.	8-5-17					7	DAY	50	78	F
42.	8-6-17	1.35	IN	RAIN	rain	2	DAY			
43.	8-11-17	0.97	IN	RAIN	rain	1	DAY			
44.	8-12-17					7	DAY	56	88	F
45.	8-14-17	0.01	IN	RAIN	rain	1	DAY			
46.	8-16-17	0.69	IN	RAIN	rain	2	DAY			
47.	8-19-17					7	DAY	66	90	F
48.	8-26-17					7	DAY	55	85	F
49.	8-28-17	0.1	IN	RAIN	rain	1	DAY			
50.	9-2-17					7	DAY	42	90	F
51.	9-4-17	0.05	IN	RAIN	rain	1	DAY			
52.	9-9-17					7	DAY	46	85	F
53.	9-12-17	0.15	IN	RAIN	rain	2	DAY			
54.	9-16-17					7	DAY	60	87	F
55.	9-17-17	1.57	IN	RAIN	rain	3	DAY			
56.	9-23-17					7	DAY	48	90	F
57.	9-30-17					7	DAY	43	83	F
58.	10-7-17					7	DAY	47	84	F

Comment:
Air temperature and precipitation was recorded at SOUTHERN ILLINOIS AIRPORT (93810),
10.5 miles south and provided by NOAA's National Centers for Environmental Information.
Air temperatures given are summarized as weekly high and low,
detailed weather data is available upon request.

Application Description

	A	B
Application Date:	5-25-17	6-22-17
Appl. Start Time:	7:55	5:50
Appl. Stop Time:	8:10	6:10
Interval to Prev. Appl., Unit:		28 DAYS
Application Method:	Spray	Spray
Application Timing:	PRE	2-4"W
Application Placement:	BROSOI	BROFOL
Applied By:	RLS	CC
Air Temperature, Unit:	75 F	75 F
% Relative Humidity:	57	82
Wind Velocity, Unit:	1 MPH	2 MPH
Wind Direction:	S	SE
Dew Presence (Y/N):	N	Y
Soil Temperature, Unit:	67 F	76 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	5	65
Next Moisture Occurred On:	5-27-17	6-23-17
Time to Next Moisture, Unit:	2 DAY	9 HR

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	V3
Stage Minimum, Percent:		V2
Stage Maximum, Percent:		V3
Height, Unit:		6 IN
Height Minimum, Maximum:		4 7

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:	NA	9
Stage Minimum, Percent:		COT
Stage Maximum, Percent:		15
Height, Unit:		4 IN
Height Minimum, Maximum:		0.2 7
Density, Unit:		0.2 FT2
Pest 2 Code, Type, Scale:	PANDI W	PANDI W
Stage Majority, Percent:	NA	3
Stage Minimum, Percent:		1
Stage Maximum, Percent:		9
Height, Unit:		2 IN
Height Minimum, Maximum:		0.2 4
Density, Unit:		0.1 FT2

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	TTI
Nozzle Size:	8002	11002
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

FeXapan in Conventional-Till Two-Pass Programs for RR2X Soybeans.
Trial ID: 17-KRC-DPX-133 Location: Kuehn Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code														
	Crop Code									GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									6-8-17	6-21-17	6-30-17	7-5-17	7-20-17	8-3-17
	Rating Type									Injury	Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									14 DAP	0 DA-B	7 DA-B	14 DA-B	28 DA-B	42 DA-B
1	TRIVENCE	61.3	WG			8	oz/a	PRE	A	22 a	20 a	5 cd	27 a	20 a	3 a
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A						
	SENCOR	75	WG	0.223	lb ai/a			PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
2	TRIVENCE	61.3	WG			8	oz/a	PRE	A	23 a	20 a	8 bc	28 a	13 a	0 a
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A						
	SENCOR	75	WG	0.223	lb ai/a			PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B						
3	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	0 b	0 b	1 de	1 b	10 a	0 a
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A						
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
4	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	12 ab	10 ab	10 b	23 a	10 a	0 a
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A						
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B						
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	0 b	0 b	0 e	0 b	0 a	0 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	0 b	0 b	8 bc	13 ab	7 a	0 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B						
7	FIERCE XLT	62.41	WG			4.5	oz/a	PRE	A	7 b	0 b	20 a	25 a	18 a	0 a
	CLASSIC	25	WG	0.01876	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.0691	lb ai/a			PRE	A						
	ZIDUA	85	WG	0.08767	lb ai/a			PRE	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	2-4"W	B						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B						
8	NONTREATED									0	0	0	0	0	0
	LSD P=.05									13.9	11.8	4.3	15.7	17.6	3.9
	Standard Deviation									7.7	6.5	2.4	8.8	9.9	2.2
	CV									85.43	91.65	32.86	52.65	88.47	458.26
	Replicate F									0.498	0.333	0.599	0.544	0.887	1.000
	Replicate Prob(F)									0.6207	0.7235	0.5649	0.5944	0.4374	0.3966
	Treatment F									5.201	6.333	23.055	5.744	1.437	1.000
	Treatment Prob(F)									0.0091	0.0043	0.0001	0.0050	0.2787	0.4682

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Missing data estimates are included in columns:Average=5,8,21,22,23,24

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMATA
	Crop Code													
	Rating Date									6-8-17	6-21-17	7-5-17	7-20-17	8-3-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									14 DAP	0 DA-B	14 DA-B	28 DA-B	42 DA-B
1	TRIVENCE	61.3	WG			8	oz/a	PRE	A	99 a	94 a	96 a	96 a	96 a
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A					
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A					
	SENCOR	75	WG	0.223	lb ai/a			PRE	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
2	TRIVENCE	61.3	WG			8	oz/a	PRE	A	99 a	92 a	95 a	96 a	95 a
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A					
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A					
	SENCOR	75	WG	0.223	lb ai/a			PRE	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
3	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	99 a	92 a	93 a	95 a	95 a
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A					
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A					
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
4	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	96 a	93 a	94 a	96 a	97 a
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A					
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A					
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	96 a	93 a	92 a	92 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	98 a	98 a	98 a	98 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
7	FIERCE XLT	62.41	WG			4.5	oz/a	PRE	A	99 a	98 a	96 a	96 a	96 a
	CLASSIC	25	WG	0.01876	lb ai/a			PRE	A					
	VALOR SX	51	WG	0.0691	lb ai/a			PRE	A					
	ZIDUA	85	WG	0.08767	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	2-4"W	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B					
8	NONTREATED									0	0	0	0	0
	LSD P=.05									3.5	4.9	6.2	5.0	5.4
	Standard Deviation									1.9	2.8	3.5	2.8	3.0
	CV									1.97	2.94	3.64	2.92	3.16
	Replicate F									1.266	6.488	1.732	3.395	3.816
	Replicate Prob(F)									0.3171	0.0123	0.2183	0.0679	0.0522
	Treatment F									1.000	2.728	0.829	1.273	1.112
	Treatment Prob(F)									0.4682	0.0656	0.5694	0.3388	0.4104

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Missing data estimates are included in columns:Average=5,8,21,22,23,24

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	PANDI 6-8-17 Control 0-99 14 DAP	PANDI 6-21-17 Control 0-99 0 DA-B	PANDI 7-5-17 Control 0-99 14 DA-B	PANDI 7-20-17 Control 0-99 28 DA-B	PANDI 8-3-17 Control 0-99 42 DA-B	GLXMA 9-29-17 Yield bu/A Harvest
1	TRIVENCE	61.3	WG			8	oz/a	PRE	A	97 a	95 bc	99 a	96 a	96 a	25 b
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A						
	SENCOR	75	WG	0.223	lb ai/a			PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
2	TRIVENCE	61.3	WG			8	oz/a	PRE	A	95 a	92 c	99 a	98 a	98 a	39 ab
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A						
	SENCOR	75	WG	0.223	lb ai/a			PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B						
3	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	99 a	94 c	98 a	98 a	98 a	46 a
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A						
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
4	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	98 a	95 bc	99 a	98 a	98 a	40 ab
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A						
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B						
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	98 ab	99 a	97 a	97 a	38 ab
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	99 a	99 a	98 a	98 a	35 ab
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B						
7	FIERCE XLT	62.41	WG			4.5	oz/a	PRE	A	99 a	98 ab	99 a	98 a	98 a	36 ab
	CLASSIC	25	WG	0.01876	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.0691	lb ai/a			PRE	A						
	ZIDUA	85	WG	0.08767	lb ai/a			PRE	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	2-4"W	B						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B						
8	NONTREATED									0	0	0	0	0	4 c
	LSD P=.05									3.9	3.4	0.9	2.2	2.2	16.1
	Standard Deviation									2.2	1.9	0.5	1.2	1.2	9.1
	CV									2.22	1.97	0.51	1.26	1.26	27.7
	Replicate F									0.847	2.419	0.563	2.667	2.667	0.311
	Replicate Prob(F)									0.4528	0.1310	0.5841	0.1101	0.1101	0.7380
	Treatment F									1.176	5.042	0.625	1.683	1.683	6.283
	Treatment Prob(F)									0.3802	0.0084	0.7079	0.2085	0.2085	0.0023

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Missing data estimates are included in columns:Average=5,8,21,22,23,24

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 9-29-17 Weight Pounds Harvest	GLXMA 9-29-17 Moisture Percent Harvest	GLXMA 9-29-17 Test Weight lbs/bu Harvest
Pest Code												
Crop Code												
Rating Date												
Rating Type												
Rating Unit												
Rating Timing												
Trt-Eval Interval												
1	TRIVENCE	61.3	WG			8	oz/a	PRE	A	4.4 b	6.8 a	47.8 b
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A			
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A			
	SENCOR	75	WG	0.223	lb ai/a			PRE	A			
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B			
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B			
2	TRIVENCE	61.3	WG			8	oz/a	PRE	A	7.0 ab	8.6 a	54.8 ab
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A			
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A			
	SENCOR	75	WG	0.223	lb ai/a			PRE	A			
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B			
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B			
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B			
3	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	8.2 a	7.1 a	55.3 a
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A			
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A			
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A			
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B			
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B			
4	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	7.2 ab	7.5 a	54.3 ab
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A			
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A			
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A			
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B			
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B			
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B			
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	6.9 ab	8.0 a	53.5 ab
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A			
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B			
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B			
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	6.1 ab	6.9 a	55.3 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A			
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B			
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B			
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B			
7	FIERCE XLT	62.41	WG			4.5	oz/a	PRE	A	6.5 ab	7.3 a	54.5 ab
	CLASSIC	25	WG	0.01876	lb ai/a			PRE	A			
	VALOR SX	51	WG	0.0691	lb ai/a			PRE	A			
	ZIDUA	85	WG	0.08767	lb ai/a			PRE	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B			
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	2-4"W	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B			
8	NONTREATED									0.6 c	0.9 b	9.6 c
LSD P=.05										2.95	2.06	7.19
Standard Deviation										1.67	1.17	4.07
CV										28.48	17.68	8.46
Replicate F										0.327	2.115	1.575
Replicate Prob(F)										0.7269	0.1603	0.2440
Treatment F										6.049	12.621	44.864
Treatment Prob(F)										0.0027	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=5,8,21,22,23,24

Trial Comments

1. Protocol: DuPont (DPX-133).
2. Ratings:
   CI 14 DAP (days after planting), CI 0, 7, 14 and 28 DA-B, if CI persists past 28 DA-B, rate 14 days later.
   WC 14 DAP (days after planting), WC 0, 14, 28 and 42 DA-B.
   Target glyphosate-resistant waterhemp and rate other weeds.
   When control is less than complete, indicate if it was lack of burndown or new emergence.
3. Yield, do not sell grain.
4. Photos not requested, but as appropriate.
5. Rate before spray application B, the 14 DAP rating is too early to count as 0 DA-B, rate it again.

Rainfall following application A was 0.63" over 1 day beginning 55 hours after application.
Rainfall following application B was 1.02" over 2 days beginning 4 hours after application.

Less than complete control following the POST application was due to lack of burndown control.
CI ratings on 6/8 (14 DA-P) and 6/21 (0 DA-B) are percent stand reduction.
CI rating on 6/30 (7 DA-B) is leaf crinkle and necrosis.
CI ratings from 7/5 (14 DA-B) onward are an overall injury rating, though injury was primarily stunting.

Stand establishment was poor throughout this trial, and in this field in general.
Overall plot photos are available from 6/21, 7/5, and 7/20. These can be provided on a flashdrive, if desired.
Harvest area per plot = 27.5' x 5'

Southern Illinois University

FeXapan in No-Till Two-Pass Programs for RR2X Soybean.
Trial ID: 17-DSO-DPX-130 Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 4-24-17
Completion Date: 10-6-17

Trial Location

City: De Soto **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62924

Latitude of LL Corner °: 37.796512 N
Longitude of LL Corner °: 89.262669 W
Angle y-axis to North °: 270.00
GPS Precision: G GPS for trial site

Objectives:
Evaluate Abundit Edge and FeXapan in tank-mixes for weed control and crop tolerance in RR2X soybean.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: RR2X **BBCH Scale:** BSOY
Description: Asgrow 39X7

Planting Date: 5-9-17
Planting Method: SEEDED

Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 66 F
Soil Moisture: ABONOR

Pest Description

Pest 1 Type: W **Code:** ERICA Conyza canadensis (L.) Crong.
Common Name: horseweed
Description: glyphosate-resistant marestail

Pest 2 Type: W **Code:** ERIPH Erigeron philadelphicus
Common Name: Daisy fleabane

Pest 3 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common
Description: glyphosate-resistant waterhemp

Pest 4 Type: W **Code:** SIDSP Sida spinosa L.
Common Name: sida, prickly

Pest 5 Type: W **Code:** IPOLA Ipomoea lacunosa L.
Common Name: morningglory, pitted

Pest 6 Type: W **Code:** PANDI Panicum dichotomiflorum Michx.
Common Name: panicum, fall

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	Non-crop	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: DSO_west_2016
% Sand: 15.4 **% OM:** 1.96 **Texture:** SIL silt loam
% Silt: 64.7 **pH:** 7.1 **Soil Name:** Okaw
% Clay: 19.9 **CEC:** 7.91

Additional Measured Elements

Element	Quantity	Unit
P1	52	lb/A
K	278	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: SOUTHERN IL AIRPORT (93810) **Distance, Unit:** 1.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-8-17					7	DAY	37	82	F
2.	4-10-17	0.09	IN	RAIN	rain	2	DAY			
3.	4-15-17					7	DAY	50	81	F
4.	4-16-17	0.85	IN	RAIN	rain	3	DAY			
5.	4-20-17	1.6	IN	RAIN	rain	3	DAY			
6.	4-22-17					7	DAY	41	77	F
7.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
8.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
9.	4-29-17					7	DAY	45	82	F
10.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
11.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
12.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
13.	5-6-17					7	DAY	42	83	F
14.	5-13-17					7	DAY	50	85	F
15.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
16.	5-20-17				rain	7	DAY	51	84	F
17.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
18.	5-27-17					7	DAY	56	87	F
19.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
20.	6-3-17				rain	7	DAY	54	87	F
21.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
22.	6-10-17					7	DAY	57	92	F
23.	6-15-17	0.13	IN	RAIN	rain	1	DAY			
24.	6-17-17					7	DAY	61	90	F
25.	6-18-17	0.8	IN	RAIN	rain	1	DAY			
26.	6-22-17	1.02	IN	RAIN	rain	2	DAY			
27.	6-24-17					7	DAY	54	87	F
28.	6-30-17	0.02	IN	RAIN	rain	1	DAY			
29.	7-1-17				rain	7	DAY	63	90	F
30.	7-5-17	0.9	IN	RAIN	rain	3	DAY			
31.	7-8-17					7	DAY	67	93	F
32.	7-13-17	0.69	IN	RAIN	rain	2	DAY			
33.	7-15-17					7	DAY	61	95	F
34.	7-17-17	0.56	IN	RAIN	rain	1	DAY			
35.	7-22-17					7	DAY	69	94	F
36.	7-23-17	0.03	IN	RAIN	rain	1	DAY			
37.	7-27-17	0.02	IN	RAIN	rain	1	DAY			
38.	7-29-17					7	DAY	55	89	F
39.	8-1-17	0.06	IN	RAIN	rain	1	DAY			
40.	8-3-17	0.03	IN	RAIN	rain	1	DAY			
41.	8-5-17					7	DAY	50	78	F
42.	8-6-17	1.35	IN	RAIN	rain	2	DAY			
43.	8-11-17	0.97	IN	RAIN	rain	1	DAY			
44.	8-12-17					7	DAY	56	88	F
45.	8-14-17	0.01	IN	RAIN	rain	1	DAY			
46.	8-16-17	0.69	IN	RAIN	rain	2	DAY			
47.	8-19-17					7	DAY	66	90	F

48.	8-26-17					7	DAY	55	85	F
49.	8-28-17	0.1	IN	RAIN	rain	1	DAY			
50.	9-2-17					7	DAY	42	90	F
51.	9-4-17	0.05	IN	RAIN	rain	1	DAY			
52.	9-9-17					7	DAY	46	85	F
53.	9-12-17	0.15	IN	RAIN	rain	2	DAY			
54.	9-16-17					7	DAY	60	87	F
55.	9-17-17	1.57	IN	RAIN	rain	3	DAY			
56.	9-23-17					7	DAY	48	90	F
57.	9-30-17					7	DAY	43	83	F
58.	10-7-17				rain	7	DAY	47	84	F
59.	4-8-17				rain	7	DAY	37	82	F
60.	4-10-17	0.09	IN	RAIN	rain	2	DAY			
61.	4-15-17					7	DAY	50	81	F
62.	4-16-17	0.85	IN	RAIN	rain	3	DAY			
63.	4-20-17	1.6	IN	RAIN	rain	3	DAY			
64.	4-22-17					7	DAY	41	77	F
65.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
66.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
67.	4-29-17					7	DAY	45	82	F
68.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
69.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
70.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
71.	5-6-17					7	DAY	42	83	F
72.	5-13-17					7	DAY	50	85	F
73.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
74.	5-20-17					7	DAY	51	84	F
75.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
76.	5-27-17					7	DAY	56	87	F
77.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
78.	6-3-17					7	DAY	54	87	F
79.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
80.	6-10-17					7	DAY	57	92	F
81.	6-15-17	0.13	IN	RAIN	rain	1	DAY			
82.	6-17-17					7	DAY	61	90	F
83.	6-18-17	0.8	IN	RAIN	rain	1	DAY			
84.	6-22-17	1.02	IN	RAIN	rain	2	DAY			
85.	6-24-17					7	DAY	54	87	F
86.	6-30-17	0.02	IN	RAIN	rain	1	DAY			
87.	7-1-17					7	DAY	63	90	F
88.	7-5-17	0.9	IN	RAIN	rain	3	DAY			
89.	7-8-17					7	DAY	67	93	F
90.	7-13-17	0.69	IN	RAIN	rain	2	DAY			
91.	7-15-17					7	DAY	61	95	F
92.	7-17-17	0.56	IN	RAIN	rain	1	DAY			
93.	7-22-17					7	DAY	69	94	F
94.	7-23-17	0.03	IN	RAIN	rain	1	DAY			
95.	7-27-17	0.02	IN	RAIN	rain	1	DAY			
96.	7-29-17					7	DAY	55	89	F
97.	8-1-17	0.06	IN	RAIN	rain	1	DAY			
98.	8-3-17	0.03	IN	RAIN	rain	1	DAY			
99.	8-5-17					7	DAY	50	78	F
100.	8-6-17	1.35	IN	RAIN	rain	2	DAY			
101.	8-11-17	0.97	IN	RAIN	rain	1	DAY			
102.	8-12-17					7	DAY	56	88	F
103.	8-14-17	0.01	IN	RAIN	rain	1	DAY			
104.	8-16-17	0.69	IN	RAIN	rain	2	DAY			
105.	8-19-17					7	DAY	66	90	F
106.	8-26-17					7	DAY	55	85	F
107.	8-28-17	0.1	IN	RAIN	rain	1	DAY			
108.	9-2-17					7	DAY	42	90	F

109.	9-4-17	0.05	IN	RAIN	rain	1	DAY			
110.	9-9-17					7	DAY	46	85	F
111.	9-12-17	0.15	IN	RAIN	rain	2	DAY			
112.	9-16-17					7	DAY	60	87	F
113.	9-17-17	1.57	IN	RAIN	rain	3	DAY			
114.	9-23-17					7	DAY	48	90	F
115.	9-30-17					7	DAY	43	83	F
116.	10-7-17					7	DAY	47	84	F

Comment:
Rainfall and air temperature were recorded at SOUTHERN ILLINOIS AIRPORT (93810) 1.5 miles SSE and provided by NOAA's National Centers for Environmental Information. Air temperatures given are summarized as weekly high and low, detailed weather data is available on request.

Application Description

	A	B
Application Date:	4-24-17	5-30-17
Appl. Start Time:	12:00	10:30
Appl. Stop Time:	12:20	11:15
Interval to Prev. Appl., Unit:		36 DAYS
Application Method:	Spray	Spray
Application Timing:	14DBP	2-4"W
Application Placement:	BROFOL	BROFOL
Applied By:	RLS	CC
Air Temperature, Unit:	72 F	81 F
% Relative Humidity:	37	37
Wind Velocity, Unit:	3 MPH	3 MPH
Wind Direction:	E	SW
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	71 F	81 F
Soil Moisture:	AN	N
% Cloud Cover:	0	0
Next Moisture Occurred On:	4-26-17	6-4-17
Time to Next Moisture, Unit:	2 DAY	5 DAY

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	V1
Stage Minimum, Percent:		VC
Stage Maximum, Percent:		V1
Height, Unit:		5 IN
Height Minimum, Maximum:		3 6

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	ERICA W	ERICA W
Stage Majority, Percent:	30	N/A
Stage Minimum, Percent:	4	
Stage Maximum, Percent:	50	
Height, Unit:	4 IN	
Height Minimum, Maximum:	0.5 9	
Density, Unit:	7 FT2	
Pest 2 Code, Type, Scale:	ERIPH W	ERIPH W
Stage Majority, Percent:	50+	N/A
Stage Minimum, Percent:	11	
Stage Maximum, Percent:	50+	
Height, Unit:	12 IN	
Height Minimum, Maximum:	2 16	
Density, Unit:	0.1 FT2	
Pest 3 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:	N/A	5
Stage Minimum, Percent:		4
Stage Maximum, Percent:		8
Height, Unit:		4 IN
Height Minimum, Maximum:		0.5 5
Density, Unit:		50 FT2
Pest 4 Code, Type, Scale:	SIDSP W	SIDSP W
Stage Majority, Percent:	COT	3
Stage Minimum, Percent:	COT	2
Stage Maximum, Percent:	1	4
Height, Unit:	0.2 IN	4 IN
Height Minimum, Maximum:	0.2 0.3	2 5
Density, Unit:	0.5 FT2	40 FT2
Pest 5 Code, Type, Scale:	IPOLA W	IPOLA W
Stage Majority, Percent:	N/A	COTY
Stage Minimum, Percent:		COTY
Stage Maximum, Percent:		1
Height, Unit:		3 IN
Height Minimum, Maximum:		2 4
Density, Unit:		0.1 FT2
Pest 6 Code, Type, Scale:	PANDI W	PANDI W
Stage Majority, Percent:	1	2
Stage Minimum, Percent:	1	2
Stage Maximum, Percent:	3	3
Height, Unit:	0.2 FT	2 IN
Height Minimum, Maximum:	0.2 0.5	1 4
Density, Unit:	5 FT2	2 FT2

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	TTI	TTI
Nozzle Size:	11002	11002
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

FeXapan in No-Till Two-Pass Programs for RR2X Soybean.
Trial ID: 17-DSO-DPX-130 Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code												
	Crop Code									GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									5-23-17	5-29-17	6-6-17	6-13-17
	Rating Type									Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									29 DA-A	35 DA-A	43 DA-A	50 DA-A
	Trt-Eval Interval									14 DAP	0 DA-B	7 DA-B	14 DA-B
1	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	0 a	0 a	2 c	0 c
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A				
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
2	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	0 a	0 a	13 ab	10 a
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A				
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B				
3	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	0 a	0 a	4 c	0 c
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A				
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
4	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	0 a	0 a	10 b	7 b
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A				
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B				
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	0 a	0 a	3 c	0 c
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	0 a	0 a	14 a	9 ab
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B				
7	FIERCE XLT	62.41	WG			4.5	oz/a	14DBP	A	0 a	0 a	4 c	1 c
	CLASSIC	25	WG	0.01876	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.0691	lb ai/a			14DBP	A				
	ZIDUA	85	WG	0.08767	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Pest Code															
Crop Code													GLXMA	GLXMA	GLXMA	GLXMA
Rating Date													5-23-17	5-29-17	6-6-17	6-13-17
Rating Type													Injury	Injury	Injury	Injury
Rating Unit													0-99	0-99	0-99	0-99
Rating Timing													29 DA-A	35 DA-A	43 DA-A	50 DA-A
Trt-Eval Interval													14 DAP	0 DA-B	7 DA-B	14 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
8	NONTREATED												0	0	0	0
LSD P=.05													.	.	2.7	2.6
Standard Deviation													0.0	0.0	1.8	1.8
CV													0.0	0.0	26.05	47.46
Replicate F													0.000	0.000	0.190	0.276
Replicate Prob(F)													1.0000	1.0000	0.9018	0.8420
Treatment F													0.000	0.000	30.354	25.812
Treatment Prob(F)													1.0000	1.0000	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ERICA	ERICA	ERICA	ERICA	ERICA
	Pest Code									ERICA	ERICA	ERICA	ERICA	ERICA
	Crop Code													
	Rating Date									5-9-17	5-16-17	5-23-17	5-29-17	6-6-17
	Rating Type									Burndown	Burndown	Burndown	Burndown	Burndown
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									15 DA-A	22 DA-A	29 DA-A	35 DA-A	43 DA-A
	Trt-Eval Interval									0 DAP	7 DAP	14 DAP	0 DA-B	7 DA-B
1	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	94 a	96 a	97 a	97 a	99 a
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A					
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
2	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	93 a	96 a	97 a	98 a	99 a
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A					
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
3	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	93 a	96 a	97 a	98 a	99 a
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A					
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
4	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	95 a	96 a	99 a	99 a	99 a
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A					
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	92 a	95 a	98 a	98 a	99 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	91 a	95 a	97 a	98 a	99 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
7	FIERCE XLT	62.41	WG			4.5	oz/a	14DBP	A	92 a	96 a	97 a	99 a	99 a
	CLASSIC	25	WG	0.01876	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.0691	lb ai/a			14DBP	A					
	ZIDUA	85	WG	0.08767	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Pest Code									ERICA	ERICA	ERICA	ERICA	ERICA
Crop Code													
Rating Date									5-9-17	5-16-17	5-23-17	5-29-17	6-6-17
Rating Type									Burndown	Burndown	Burndown	Burndown	Burndown
Rating Unit									0-99	0-99	0-99	0-99	0-99
Rating Timing									15 DA-A	22 DA-A	29 DA-A	35 DA-A	43 DA-A
Trt-Eval Interval									0 DAP	7 DAP	14 DAP	0 DA-B	7 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
8	NONTREATED									0	0	0	0	0
LSD P=.05									2.7	1.7	1.6	1.4	.
Standard Deviation									1.8	1.1	1.1	1.0	0.0
CV									1.93	1.2	1.13	0.99	0.0
Replicate F									0.368	0.146	0.108	1.266	0.000
Replicate Prob(F)									0.7773	0.9307	0.9544	0.3159	1.0000
Treatment F									1.634	0.366	1.784	1.658	0.000
Treatment Prob(F)									0.1952	0.8910	0.1591	0.1888	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ERIPH	ERIPH	ERIPH	ERIPH	ERIPH
	Pest Code									ERIPH	ERIPH	ERIPH	ERIPH	ERIPH
	Crop Code													
	Rating Date									5-9-17	5-16-17	5-23-17	5-29-17	6-6-17
	Rating Type									Burndown	Burndown	Burndown	Burndown	Burndown
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									15 DA-A	22 DA-A	29 DA-A	35 DA-A	43 DA-A
	Trt-Eval Interval									0 DAP	7 DAP	14 DAP	0 DA-B	7 DA-B
1	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	52 a	78 bc	83 a	88 a	92 a
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A					
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
2	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	54 a	81 abc	88 a	89 a	95 a
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A					
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
3	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	58 a	90 a	89 a	93 a	95 a
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A					
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
4	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	65 a	88 ab	87 a	92 a	94 a
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A					
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	35 b	59 d	71 a	75 b	92 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	33 b	75 c	86 a	91 a	95 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
7	FIERCE XLT	62.41	WG			4.5	oz/a	14DBP	A	55 a	89 ab	89 a	96 a	98 a
	CLASSIC	25	WG	0.01876	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.0691	lb ai/a			14DBP	A					
	ZIDUA	85	WG	0.08767	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Pest Code									ERIPH	ERIPH	ERIPH	ERIPH	ERIPH
Crop Code													
Rating Date									5-9-17	5-16-17	5-23-17	5-29-17	6-6-17
Rating Type									Burndown	Burndown	Burndown	Burndown	Burndown
Rating Unit									0-99	0-99	0-99	0-99	0-99
Rating Timing									15 DA-A	22 DA-A	29 DA-A	35 DA-A	43 DA-A
Trt-Eval Interval									0 DAP	7 DAP	14 DAP	0 DA-B	7 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
8	NONTREATED									0	0	0	0	0
LSD P=.05									14.6	11.7	13.5	9.1	7.9
Standard Deviation									9.6	7.9	9.1	6.1	5.3
CV									19.1	9.87	10.76	6.91	5.64
Replicate F									5.775	3.158	1.451	2.004	0.294
Replicate Prob(F)									0.0098	0.0501	0.2611	0.1494	0.8289
Treatment F									6.229	7.696	1.917	4.757	0.485
Treatment Prob(F)									0.0029	0.0003	0.1329	0.0045	0.8108

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
	Crop Code															
	Rating Date									5-16-17	5-23-17	5-29-17	6-6-17	6-13-17	6-13-17	6-27-17
	Rating Type									Residual	Residual	Residual	Burndown	Burndown	Residual	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									22 DA-A	29 DA-A	35 DA-A	43 DA-A	50 DA-A	50 DA-A	64 DA-A
	Trt-Eval Interval									7 DAP	14 DAP	0 DA-B	7 DA-B	14 DA-B	14 DA-B	28 DA-B
1	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	38 a	13 a	6 b	90 a	90 c	99 a	88 bc
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A							
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A							
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B							
2	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	80 a	26 a	5 b	91 a	98 a	99 a	96 ab
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A							
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A							
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B							
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B							
3	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	56 a	19 a	21 ab	90 a	98 a	99 a	91 abc
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A							
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A							
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B							
4	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	50 a	51 a	41 a	90 a	97 ab	99 a	99 a
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A							
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A							
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B							
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B							
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	31 a	8 a	0 b	91 a	97 ab	99 a	98 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B							
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	44 a	13 a	5 b	90 a	98 a	99 a	98 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B							
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B							
7	FIERCE XLT	62.41	WG			4.5	oz/a	14DBP	A	74 a	33 a	36 a	91 a	93 bc	99 a	86 c
	CLASSIC	25	WG	0.01876	lb ai/a			14DBP	A							
	VALOR SX	51	WG	0.0691	lb ai/a			14DBP	A							
	ZIDUA	85	WG	0.08767	lb ai/a			14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A							
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B							

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Pest Code											AMATA	AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
Crop Code																	
Rating Date											5-16-17	5-23-17	5-29-17	6-6-17	6-13-17	6-13-17	6-27-17
Rating Type											Residual	Residual	Residual	Burndown	Burndown	Residual	Control
Rating Unit											0-99	0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing											22 DA-A	29 DA-A	35 DA-A	43 DA-A	50 DA-A	50 DA-A	64 DA-A
Trt-Eval Interval											7 DAP	14 DAP	0 DA-B	7 DA-B	14 DA-B	14 DA-B	28 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code								
8	NONTREATED										0	0	0	0	0	0	0
LSD P=.05											39.3	38.5	26.2	3.7	4.0	.	9.1
Standard Deviation											26.4	25.9	17.7	2.5	2.7	0.0	6.1
CV											49.7	112.37	107.47	2.72	2.81	0.0	6.53
Replicate F											0.363	0.570	0.283	0.212	0.847	0.000	0.926
Replicate Prob(F)											0.7808	0.6420	0.8373	0.8868	0.4870	1.0000	0.4493
Treatment F											1.885	1.371	3.565	0.330	4.596	0.000	2.879
Treatment Prob(F)											0.1388	0.2789	0.0166	0.9121	0.0060	1.0000	0.0401

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMATA	SIDSP	SIDSP	SIDSP	SIDSP	SIDSP
	Pest Code									AMATA	SIDSP	SIDSP	SIDSP	SIDSP	SIDSP
	Crop Code														
	Rating Date									7-10-17	5-16-17	6-6-17	6-13-17	6-27-17	7-10-17
	Rating Type									Control	Residual	Burndown	Residual	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									77 DA-A	22 DA-A	43 DA-A	50 DA-A	64 DA-A	77 DA-A
	Trt-Eval Interval									42 DA-B	7 DAP	7 DA-B	14 DA-B	28 DA-B	42 DA-B
1	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	91 bc	50 a	80 a	25 a	10 d	23 a
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A						
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A						
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
2	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	97 ab	61 a	84 a	60 a	54 abc	60 a
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A						
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A						
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B						
3	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	93 abc	31 a	86 a	58 a	53 abc	55 a
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A						
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A						
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
4	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	98 a	85 a	91 a	78 a	71 ab	63 a
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A						
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A						
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B						
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	98 a	54 a	83 a	55 a	33 bcd	45 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	98 a	69 a	90 a	94 a	84 a	76 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B						
7	FIERCE XLT	62.41	WG			4.5	oz/a	14DBP	A	89 c	30 a	85 a	35 a	23 cd	23 a
	CLASSIC	25	WG	0.01876	lb ai/a			14DBP	A						
	VALOR SX	51	WG	0.0691	lb ai/a			14DBP	A						
	ZIDUA	85	WG	0.08767	lb ai/a			14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A						
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B						
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Pest Code											AMATA	SIDSP	SIDSP	SIDSP	SIDSP	SIDSP
Crop Code																
Rating Date											7-10-17	5-16-17	6-6-17	6-13-17	6-27-17	7-10-17
Rating Type											Control	Residual	Burndown	Residual	Control	Control
Rating Unit											0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing											77 DA-A	22 DA-A	43 DA-A	50 DA-A	64 DA-A	77 DA-A
Trt-Eval Interval											42 DA-B	7 DAP	7 DA-B	14 DA-B	28 DA-B	42 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
8	NONTREATED										0	0	0	0	0	0
LSD P=.05											6.3	51.9	9.2	52.1	40.6	39.4
Standard Deviation											4.2	35.0	6.2	34.9	27.2	26.4
CV											4.43	64.41	7.23	60.57	58.35	53.65
Replicate F											1.224	0.756	2.888	0.483	0.004	0.538
Replicate Prob(F)											0.3315	0.5334	0.0659	0.6988	0.9996	0.6624
Treatment F											3.433	1.276	1.681	1.796	3.780	2.350
Treatment Prob(F)											0.0209	0.3167	0.1862	0.1598	0.0142	0.0776

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Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	IPOLA	IPOLA	IPOSS	PANDI	PANDI
	Pest Code									IPOLA	IPOLA	IPOSS	PANDI	PANDI
	Crop Code													
	Rating Date									6-13-17	6-27-17	7-10-17	6-27-17	7-10-17
	Rating Type									Residual	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									50 DA-A	64 DA-A	77 DA-A	64 DA-A	77 DA-A
	Trt-Eval Interval									14 DA-B	28 DA-B	42 DA-B	28 DA-B	42 DA-B
1	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	50 a	27 a	50 a	20 c	40 c
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A					
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
2	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	54 a	30 a	33 a	79 a	79 ab
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A					
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
3	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	58 a	58 a	58 a	61 ab	68 ab
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A					
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
4	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	72 a	33 a	50 a	74 ab	74 ab
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A					
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	31 a	28 a	28 a	64 ab	60 bc
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	78 a	61 a	61 a	84 a	84 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B					
7	FIERCE XLT	62.41	WG			4.5	oz/a	14DBP	A	44 a	10 a	13 a	50 b	63 b
	CLASSIC	25	WG	0.01876	lb ai/a			14DBP	A					
	VALOR SX	51	WG	0.0691	lb ai/a			14DBP	A					
	ZIDUA	85	WG	0.08767	lb ai/a			14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A					
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B					
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B					

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Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Southern Illinois University

Pest Code	IPOLA	IPOLA	IPOSS	PANDI	PANDI
Crop Code					
Rating Date	6-13-17	6-27-17	7-10-17	6-27-17	7-10-17
Rating Type	Residual	Control	Control	Control	Control
Rating Unit	0-99	0-99	0-99	0-99	0-99
Rating Timing	50 DA-A	64 DA-A	77 DA-A	64 DA-A	77 DA-A
Trt-Eval Interval	14 DA-B	28 DA-B	42 DA-B	28 DA-B	42 DA-B
Trt Treatment No. Name / Form Conc / Form Type / Rate / Rate Unit / Other Rate / Other Rate Unit / Growth Stage / Appl Code					
8 NONTREATED	0	0	0	0	0
LSD P=.05	55.2	51.4	55.3	26.0	21.1
Standard Deviation	36.8	34.3	37.0	17.4	14.1
CV	66.84	97.5	89.09	28.25	21.2
Replicate F	0.321	0.363	0.024	3.077	1.199
Replicate Prob(F)	0.8099	0.7809	0.9947	0.0556	0.3402
Treatment F	0.742	1.118	0.926	6.169	4.219
Treatment Prob(F)	0.6239	0.3949	0.5013	0.0014	0.0088

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval									GLXMA 10-6-17 Yield bu/A Harvest	GLXMA 10-6-17 Weight Pounds Harvest	GLXMA 10-6-17 Moisture Percent Harvest	GLXMA 10-6-17 Test Weight lbs/bu Harvest
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	49 a	9.2 ab	11.5 a	53.2 a
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A				
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
2	TRIVENCE	61.3	WG			8	oz/a	14DBP	A	50 a	9.4 ab	12.0 a	52.2 a
	CLASSIC	25	WG	0.0195	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.064	lb ai/a			14DBP	A				
	SENCOR	75	WG	0.223	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B				
3	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	56 a	10.3 ab	11.3 a	53.1 a
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A				
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
4	ENVIVE	41.3	WG			3.5	oz/a	14DBP	A	54 a	10.0 ab	11.6 a	53.0 a
	CLASSIC	25	WG	0.02	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.0639	lb ai/a			14DBP	A				
	HARMONY SG	50	SG	0.00643	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B				
5	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	53 a	10.0 ab	11.7 a	53.3 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
6	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	14DBP	A	56 a	10.4 a	11.8 a	52.9 a
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B				
7	FIERCE XLT	62.41	WG			4.5	oz/a	14DBP	A	48 a	8.9 b	11.7 a	53.6 a
	CLASSIC	25	WG	0.01876	lb ai/a			14DBP	A				
	VALOR SX	51	WG	0.0691	lb ai/a			14DBP	A				
	ZIDUA	85	WG	0.08767	lb ai/a			14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	14DBP	A				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	14DBP	A				
	ABUNDIT EDGE	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B				
	FEXAPAN	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	B				

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Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

Pest Code				
Crop Code	GLXMA	GLXMA	GLXMA	GLXMA
Rating Date	10-6-17	10-6-17	10-6-17	10-6-17
Rating Type	Yield	Weight	Moisture	Test Weight
Rating Unit	bu/A	Pounds	Percent	lbs/bu
Rating Timing	Harvest	Harvest	Harvest	Harvest
Trt-Eval Interval				
Trt Treatment Form Form Rate Other Other Growth Appl No. Name Conc Type Rate Unit Rate Rate Unit Stage Code				
8 NONTREATED	5 b	0.9 c	2.4 b	12.9 b
LSD P=.05	7.9	1.44	1.44	3.33
Standard Deviation	5.3	0.97	0.98	2.25
CV	11.47	11.26	9.3	4.69
Replicate F	1.895	1.997	1.850	0.430
Replicate Prob(F)	0.1647	0.1487	0.1723	0.7338
Treatment F	40.046	42.459	45.261	158.886
Treatment Prob(F)	0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,20,25,26,29,33,22,28,31,35,27,30,34,32,36,37,38,39,40
Could not calculate LSD (% mean diff) for columns 11,15,23,26 because error mean square = 0.

FeXapan in No-Till Two-Pass Programs for RR2X Soybean.
Trial ID: 17-DSO-DPX-130 Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: DuPont (USA-17-130).
2. Ratings:
   CI 14 DAP and 0 DA-B (prior to POST), and 7, 14, and 28 DA-B or until no visible CI.
   WC 0, 7, and 14 DAP, 0 DA-B (prior to POST), and 14, 28, and 42 DA-B.
   These herbicide programs are burndown and residual so typically start with BD ratings and rate residual as new weeds are emerging, just note if BD or Res or both.
3. Yield, check FeXapan label before selling grain.
4. Target GR-marestail and GR-waterhemp, rate other weeds.
5. Photos not requested.
6. Follow dicamba SOP.

Rainfall following application A was 1.45" over 1 day, begining 49 hours after applicaition.
Rainfall following application B was 1.24" over 2 days, beginning 5 days after application.

5/23: SIDSP pressure was patchy.
AMATA pressure was uniform and persistent throughout trial area; residual control rating reflect decreased size and density in plot.
ERIPH sizes varied considerably throughout the trial area, though most were getting large by the time of application (50+ leaves, 12+ inches).

6/6: All ratings were burndown control.
CI in treatments 3, 5, and 7 was necrotic speckling;
CI in treatments 2, 4, and 6 was primarily drawstinging of leaf tips.

6/28: No crop injury observed at this rating.

7/10: Plots with good crop canopy suppressed weeds resulting in improved weed control.

Ratings for plot 101 were considered 'missing data' following B due to misapplication in this plot.
Yield in plot 201 was considered 'missing data' due to harvest error.

Harvest area per plot = 27.5' x 5'.

Southern Illinois University

Soybean Herbicide Showcase from Dow versus Competitors.
Trial ID: 17-2A-W90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-26-17
Completion Date: 10-18-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Upper Left: 38.516397 89.840892 **Upper Right:** 38.516394 89.840568
Latitude of LL Corner °: 38.51594 N **Lower Right:** 38.515938 89.840576
Longitude of LL Corner °: 89.840892 W
Altitude of LL Corner, Unit: 435.00 FT
Angle y-axis to North °: 0.00
GPS Precision: G GPS for trial site

Objectives:
Demonstrate the crop tolerance and weed control from two-pass programs in RR2Y soybeans.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 39X7 **BBCH Scale:** BSOY
Description: RR2X
Planting Date: 5-26-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 67 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Pest 4 Type: W **Code:** PANDI Panicum dichotomiflorum Michx.
Common Name: panicum, fall

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 28 FT **Total Plot Length:** 28 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 02a_2013
% OM: 2.5 **Texture:** SIL silt loam
pH: 6.7 **Soil Name:** Pierron
CEC: 6

Additional Measured Elements

Element	Quantity	Unit
P1	85	lb/A
K	262	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-22-17					7	DAY	41	80	F
2.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
3.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
4.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
5.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
6.	4-29-17					7	DAY	45	77	F
7.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
8.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
9.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
10.	5-6-17					7	DAY	43	87	F
11.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
12.	5-13-17					7	DAY	51	87	F
13.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
14.	5-20-17					7	DAY	50	80	F
15.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
16.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
17.	5-27-17					7	DAY	55	87	F
18.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
19.	6-3-17					7	DAY	54	89	F
20.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
21.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
22.	6-17-17					7	DAY	62	92	F
23.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
24.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
25.	6-24-17					7	DAY	53	91	F
26.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
27.	7-1-17					7	DAY	60	93	F
28.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
29.	7-8-17					7	DAY	67	98	F
30.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
31.	7-15-17					7	DAY	60	91	F
32.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
33.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
34.	7-22-17					7	DAY	69	99	F
35.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
36.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
37.	7-29-17					7	DAY	61	83	F
38.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
39.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
40.	8-5-17					7	DAY	55	87	F
41.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
42.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
43.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
44.	8-12-17					7	DAY	56	84	F
45.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
46.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
47.	8-19-17					7	DAY	56	94	F
48.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
49.	8-26-17					7	DAY	56	86	F
50.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
51.	9-2-17					7	DAY	47	95	F

52.	9-4-17	0.79	IN	RAIN	rain	1	DAY			
53.	9-9-17					7	DAY	57	83	F
54.	9-12-17	0.12	IN	RAIN	rain	2	DAY			
55.	9-16-17					7	DAY	61	95	F
56.	9-18-17	0.06	IN	RAIN	rain	1	DAY			
57.	9-23-17					7	DAY	49	93	F
58.	9-30-17					7	DAY	48	84	F
59.	10-3-17	0.38	IN	RAIN	rain	1	DAY			
60.	10-5-17	0.05	IN	RAIN	rain	1	DAY			
61.	10-7-17	0.13	IN	RAIN	rain	1	DAY			
62.	10-7-17					7	DAY	50	85	F
63.	10-9-17	0.3	IN	RAIN	rain	1	DAY			
64.	10-10-17	0.28	IN	RAIN	rain	1	DAY			
65.	10-14-17					7	DAY	40	88	F
66.	10-15-17	0.66	IN	RAIN	rain	1	DAY			
67.	10-21-17					7	DAY	36	79	F

Comment:
Rainfall was recorded on station and provided by Illinois Climate Network. Air temperature was recorded at Scott Air Force Base 2.5 miles north and provided by NOAA's National Centers for Environmental Information. Air temperatures given are summarized as weekly high and low, detailed weather data is available on request.

Application Description

	A	B	C
Application Date:	5-27-17	6-20-17	6-20-17
Appl. Start Time:	11:00	15:40	15:40
Appl. Stop Time:	11:35	16:00	16:00
Interval to Prev. Appl., Unit:		24 DAYS	24 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	4-6"W-1	4-6"W-2
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	MCG	RLS+MCG	RLS+MCG
Air Temperature, Unit:	82 F	89 F	89 F
% Relative Humidity:	59	35	35
Wind Velocity, Unit:	3 MPH	11 MPH	11 MPH
Wind Direction:	E	SW	SW
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	69 F	74 F	74 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	0	5	5
Next Moisture Occurred On:	5-27-17	7-5-17	7-5-17
Time to Next Moisture, Unit:	5 HR	15 DAY	15 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA
Stage Scale Used:	N/A	DESC	DESC
Stage Majority, Percent:		V2	V2
Stage Minimum, Percent:		V1	V1
Stage Maximum, Percent:		V2	V2
Height, Unit:		8 IN	8 IN
Height Minimum, Maximum:		7 9	7 9

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	N/A	6	6
Stage Minimum, Percent:		COT	COT
Stage Maximum, Percent:		14	10
Height, Unit:		5 IN	4.5 IN
Height Minimum, Maximum:		0.3 10	0.3 10
Density, Unit:		5 FT2	0.1 FT2
Pest 2 Code, Type, Scale:	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	N/A	N/A	8
Stage Minimum, Percent:			COT
Stage Maximum, Percent:			11
Height, Unit:			3 IN
Height Minimum, Maximum:			0.2 6
Density, Unit:			0.02 FT2
Pest 3 Code, Type, Scale:	XANST W	XANST W	XANST W
Stage Majority, Percent:	N/A	4	5
Stage Minimum, Percent:		4	4
Stage Maximum, Percent:		5	12
Height, Unit:		4 IN	6 IN
Height Minimum, Maximum:		1 5	2 12
Density, Unit:		0.02 FT2	0.025 FT2
Pest 4 Code, Type, Scale:	PANDI W	PANDI W	PANDI W
Stage Majority, Percent:	N/A	3	5
Stage Minimum, Percent:		1	1
Stage Maximum, Percent:		3	5
Height, Unit:		2 IN	4 IN
Height Minimum, Maximum:		0.2 3.5	0.2 7.5
Density, Unit:		0.5 FT2	12 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

Soybean Herbicide Showcase from Dow versus Competitors.
Trial ID: 17-2A-W90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-9-17 Injury 0-99 13 DA-A	GLXMA 6-26-17 Injury 0-99 6 DA-B 6 DA-C	GLXMA 7-6-17 Injury 0-99 16 DA-B 16 DA-C	GLXMA 7-18-17 Injury 0-99 28 DA-B 28 DA-C	GLXMA 8-1-17 Injury 0-99 42 DA-B 42 DA-C
1	SONIC	70	WG	0.197	lb ai/a	4.5	oz/a	PRE	A	0 a	0 d	0 d	0 d	0 b
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C					
2	SONIC	70	WG	0.263	lb ai/a	6	oz/a	PRE	A	0 a	0 d	0 d	0 d	0 b
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C					
3	SONIC	70	WG	0.131	lb ai/a	3	oz/a	PRE	A	0 a	0 d	0 d	0 d	1 b
	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	4-6"W-2	C					
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C					
4	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	0 a	12 bc	3 c	0 d	0 b
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C					
5	NONTREATED									0	0	0	0	0
6	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	0 a	2 d	0 d	0 d	0 b
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
7	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	0 a	17 ab	3 c	1 cd	1 b
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B					
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
8	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	0 a	17 ab	3 c	0 d	1 b
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B					
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	0 a	1 d	0 d	0 d	0 b
	CLASSIC	25	WG	0.0195	lb ai/a	1.25	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
10	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	0 a	20 a	10 b	2 c	2 b
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	4-6"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
11	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	0 a	10 c	4 c	0 d	0 b
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
12	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	0 a	0 d	0 d	0 d	0 b
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
13	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	0 a	3 d	0 d	0 d	2 b
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=7
Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code													
	Crop Code									GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									6-9-17	6-26-17	7-6-17	7-18-17	8-1-17
	Rating Type									Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									13 DA-A	6 DA-B	16 DA-B	28 DA-B	42 DA-B
	Trt-Eval Interval										6 DA-C	16 DA-C	28 DA-C	42 DA-C
14	SONIC	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	0 a	0 d	0 d	0 d	0 b
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
15	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	0 a	15 abc	15 a	8 a	9 a
	WARRANT ULTRA	3.49	CS	1.36	lb ai/a	50	fl oz/a	4-6"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
16	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	0 a	15 abc	4 c	4 b	3 b
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
	LSD P=.05									.	5.6	2.5	1.5	3.5
	Standard Deviation									0.0	3.3	1.5	0.9	2.1
	CV									0.0	45.36	53.37	90.01	168.16
	Replicate F									0.000	0.458	0.627	2.783	0.157
	Replicate Prob(F)									1.0000	0.6373	0.5416	0.0790	0.8552
	Treatment F									0.000	16.368	25.582	20.561	3.789
	Treatment Prob(F)									1.0000	0.0001	0.0001	0.0001	0.0013

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=7
Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	5	6	7	8
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code												
	Rating Date									6-9-17	7-6-17	7-18-17	8-1-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									13 DA-A	16 DA-B	28 DA-B	42 DA-B
	Trt-Eval Interval										16 DA-C	28 DA-C	42 DA-C
1	SONIC	70	WG	0.197	lb ai/a	4.5	oz/a	PRE	A	20 def	97 a	98 a	98 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
2	SONIC	70	WG	0.263	lb ai/a	6	oz/a	PRE	A	40 b-e	97 a	98 a	98 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
3	SONIC	70	WG	0.131	lb ai/a	3	oz/a	PRE	A	23 def	98 a	97 abc	98 a
	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	4-6"W-2	C				
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
4	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	87 a	97 a	97 ab	98 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
5	NONTREATED									0	0	0	0
6	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	20 def	96 a	97 ab	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
7	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	0 f	95 a	96 bc	95 b
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B				
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
8	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	13 ef	96 a	97 ab	97 ab
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B				
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	23 def	98 a	98 a	98 a
	CLASSIC	25	WG	0.0195	lb ai/a	1.25	oz/a	PRE	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
10	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	0 f	94 a	95 c	95 b
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	4-6"W-1	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
11	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	30 c-f	98 a	97 ab	97 ab
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
12	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	52 a-d	98 a	98 a	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
13	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	65 abc	98 a	98 a	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=7
Could not calculate LSD (% mean diff) for columns 5 because error mean square = 0.

Southern Illinois University

Pest Code									AMBTR	AMBTR	AMBTR	AMBTR
Crop Code												
Rating Date									6-9-17	7-6-17	7-18-17	8-1-17
Rating Type									Control	Control	Control	Control
Rating Unit									0-99	0-99	0-99	0-99
Rating Timing									13 DA-A	16 DA-B	28 DA-B	42 DA-B
Trt-Eval Interval										16 DA-C	28 DA-C	42 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
14	SONIC	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	37 b-e	98 a	98 a	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
15	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	63 abc	97 a	98 a	97 a
	WARRANT ULTRA	3.49	CS	1.36	lb ai/a	50	fl oz/a	4-6"W-1	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
16	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	67 ab	98 a	98 a	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
LSD P=.05										35.7	2.3	2.1	1.8
Standard Deviation										21.3	1.4	1.2	1.1
CV										59.3	1.41	1.26	1.12
Replicate F										0.410	0.464	1.189	1.421
Replicate Prob(F)										0.6678	0.6333	0.3195	0.2585
Treatment F										4.388	1.913	2.075	2.438
Treatment Prob(F)										0.0004	0.0700	0.0487	0.0217

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	1	2	3	4
	Pest Code									AMATA	AMATA	AMATA	AMATA
	Crop Code												
	Rating Date									6-9-17	7-6-17	7-18-17	8-1-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									13 DA-A	16 DA-B	28 DA-B	42 DA-B
	Trt-Eval Interval										16 DA-C	28 DA-C	42 DA-C
1	SONIC	70	WG	0.197	lb ai/a	4.5	oz/a	PRE	A	99 a	97 bc	98 ab	97 c
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
2	SONIC	70	WG	0.263	lb ai/a	6	oz/a	PRE	A	99 a	98 ab	98 ab	98 bc
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
3	SONIC	70	WG	0.131	lb ai/a	3	oz/a	PRE	A	98 a	95 d	96 c	95 d
	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	4-6"W-2	C				
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
4	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	99 a	99 a	99 a	99 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
5	NONTREATED									0	0	0	0
6	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	99 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
7	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	99 a	99 a	99 a	99 a
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B				
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
8	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	99 a	99 a	99 a	99 a
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B				
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	99 a	99 a	99 a	99 a
	CLASSIC	25	WG	0.0195	lb ai/a	1.25	oz/a	PRE	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
10	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	99 a	99 ab	99 ab	99 a
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	4-6"W-1	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
11	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	99 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
12	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	99 a	97 c	97 b	98 c
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
13	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	99 a	99 a	99 ab	99 ab
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				

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Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									AMATA	AMATA	AMATA	AMATA
	Crop Code												
	Rating Date									6-9-17	7-6-17	7-18-17	8-1-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									13 DA-A	16 DA-B	28 DA-B	42 DA-B
	Trt-Eval Interval										16 DA-C	28 DA-C	42 DA-C
14	SONIC	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	94 a	97 bc	98 ab	98 c
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
15	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	99 a	98 ab	99 ab	99 a
	WARRANT ULTRA	3.49	CS	1.36	lb ai/a	50	fl oz/a	4-6"W-1	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
16	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	99 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
	LSD P=.05									3.7	1.6	1.5	0.8
	Standard Deviation									2.2	1.0	0.9	0.5
	CV									2.22	0.97	0.89	0.51
	Replicate F									0.722	1.260	0.906	0.620
	Replicate Prob(F)									0.4945	0.2994	0.4156	0.5450
	Treatment F									0.944	4.540	3.537	12.886
	Treatment Prob(F)									0.5278	0.0003	0.0022	0.0001

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Pest Code									XANST	XANST	XANST	XANST
Crop Code												
Rating Date									6-9-17	7-6-17	7-18-17	8-1-17
Rating Type									Control	Control	Control	Control
Rating Unit									0-99	0-99	0-99	0-99
Rating Timing									13 DA-A	16 DA-B	28 DA-B	42 DA-B
Trt-Eval Interval										16 DA-C	28 DA-C	42 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	SONIC	70	WG	0.197	lb ai/a	4.5	oz/a	PRE	A	23 d	99 ab	99 a	99 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
2	SONIC	70	WG	0.263	lb ai/a	6	oz/a	PRE	A	25 cd	99 a	99 a	99 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
3	SONIC	70	WG	0.131	lb ai/a	3	oz/a	PRE	A	35 cd	99 a	99 a	99 a
	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	4-6"W-2	C				
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
4	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	93 a	99 a	99 a	99 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C				
5	NONTREATED									0	0	0	0
6	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	7 e	98 c	98 a	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
7	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	0 e	99 a	99 a	99 a
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B				
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
8	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	0 e	99 a	98 a	99 a
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B				
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	0 e	99 a	99 a	99 a
	CLASSIC	25	WG	0.0195	lb ai/a	1.25	oz/a	PRE	A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
10	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	0 e	98 bc	99 a	99 a
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	4-6"W-1	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
11	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	0 e	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
12	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	40 c	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
13	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	5 e	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				

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Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									XANST	XANST	XANST	XANST
	Crop Code												
	Rating Date									6-9-17	7-6-17	7-18-17	8-1-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									13 DA-A	16 DA-B	28 DA-B	42 DA-B
	Trt-Eval Interval										16 DA-C	28 DA-C	42 DA-C
14	SONIC	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	30 cd	99 ab	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
15	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	0 e	99 a	99 a	99 a
	WARRANT ULTRA	3.49	CS	1.36	lb ai/a	50	fl oz/a	4-6"W-1	B				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
16	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	60 b	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B				
	LSD P=.05									15.1	0.6	0.8	0.5
	Standard Deviation									8.5	0.4	0.5	0.3
	CV									40.16	0.37	0.46	0.3
	Replicate F									0.043	1.181	0.427	1.000
	Replicate Prob(F)									0.9579	0.3219	0.6563	0.3806
	Treatment F									31.027	2.120	1.344	1.429
	Treatment Prob(F)									0.0001	0.0440	0.2447	0.2044

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Missing data estimates are included in columns:Average=7
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	PANDI 6-9-17 Control 0-99 13 DA-A	PANDI 7-6-17 Control 0-99 16 DA-B 16 DA-C	PANDI 7-18-17 Control 0-99 28 DA-B 28 DA-C	PANDI 8-1-17 Control 0-99 42 DA-B 42 DA-C	GLXMA 10-18-17 Yield bu/A Harvest
1	SONIC	70	WG	0.197	lb ai/a	4.5	oz/a	PRE	A	80 c	99 a	99 a	98 a	73 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C					
2	SONIC	70	WG	0.263	lb ai/a	6	oz/a	PRE	A	94 ab	99 a	99 a	98 a	69 a-d
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C					
3	SONIC	70	WG	0.131	lb ai/a	3	oz/a	PRE	A	87 bc	99 a	98 a	98 a	74 a
	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	4-6"W-2	C					
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C					
4	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	99 a	98 a	98 a	96 b	62 d
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C					
5	NONTREATED									0	0	0	0	2 e
6	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	99 a	99 a	99 a	98 a	70 abc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
7	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	99 a	99 a	99 a	99 a	69 a-d
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B					
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
8	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	99 a	99 a	99 a	98 a	65 bcd
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B					
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	99 a	99 a	99 a	99 a	67 a-d
	CLASSIC	25	WG	0.0195	lb ai/a	1.25	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
10	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	99 a	99 a	99 a	99 a	66 bcd
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	4-6"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
11	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	96 ab	99 a	98 a	98 a	71 abc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
12	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	99 a	99 a	98 a	98 a	70 abc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
13	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	96 ab	99 a	99 a	98 a	68 a-d
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					

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Missing data estimates are included in columns:Average=7
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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									PANDI	PANDI	PANDI	PANDI	
	Crop Code													GLXMA
	Rating Date									6-9-17	7-6-17	7-18-17	8-1-17	10-18-17
	Rating Type									Control	Control	Control	Control	Yield
	Rating Unit									0-99	0-99	0-99	0-99	bu/A
	Rating Timing									13 DA-A	16 DA-B	28 DA-B	42 DA-B	Harvest
	Trt-Eval Interval										16 DA-C	28 DA-C	42 DA-C	
14	SONIC	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	79 c	99 a	99 a	98 a	69 abc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
15	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	99 a	99 a	99 a	99 a	64 cd
	WARRANT ULTRA	3.49	CS	1.36	lb ai/a	50	fl oz/a	4-6"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
16	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	96 ab	99 a	99 a	99 a	71 ab
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B					
	LSD P=.05									10.3	0.6	0.8	1.4	7.1
	Standard Deviation									6.1	0.4	0.5	0.8	4.3
	CV									6.49	0.38	0.47	0.83	6.63
	Replicate F									1.695	0.157	0.104	0.710	1.098
	Replicate Prob(F)									0.2020	0.8552	0.9011	0.5002	0.3465
	Treatment F									3.781	0.831	1.896	2.594	46.520
	Treatment Prob(F)									0.0013	0.6322	0.0729	0.0154	0.0001

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval									GLXMA 10-18-17 Moisture Percent Harvest	GLXMA 10-18-17 Test Weight lb/bu Harvest	GLXMA 10-18-17 Weight lb/plot Harvest
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	SONIC	70	WG	0.197	lb ai/a	4.5	oz/a	PRE	A	14.7 a	52.9 a	12.9 a
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C			
2	SONIC	70	WG	0.263	lb ai/a	6	oz/a	PRE	A	14.5 a	53.0 a	12.0 a-d
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C			
3	SONIC	70	WG	0.131	lb ai/a	3	oz/a	PRE	A	14.5 a	53.0 a	12.9 a
	FIRSTRATE	84	WG	0.0158	lb ai/a	0.3	oz/a	4-6"W-2	C			
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C			
4	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	14.5 a	53.0 a	10.9 d
	DURANGO DMA	4	SL	0.75	lb ae/a	24	fl oz/a	4-6"W-2	C			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-2	C			
5	NONTREATED									0.1 b	0.0 b	0.4 e
6	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	14.3 a	53.0 a	12.3 abc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
7	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	14.3 a	53.0 a	12.0 a-d
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B			
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
8	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	14.5 a	53.0 a	11.5 bcd
	FLEXSTAR GT 3.5	2.82	SL	1.23	lb ae/a	3.5	pt/a	4-6"W-1	B			
	MSO	100	SL	1	% v/v	1	% v/v	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
9	BROADAXE XC	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	14.5 a	53.0 a	11.8 a-d
	CLASSIC	25	WG	0.0195	lb ai/a	1.25	oz/a	PRE	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
10	BOUNDARY	6.5	EC	1.63	lb ai/a	2.0	pt/a	PRE	A	14.4 a	53.1 a	11.5 bcd
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	4-6"W-1	B			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
11	VALOR XLT	40.3	WG	0.101	lb ai/a	4	oz/a	PRE	A	14.3 a	53.0 a	12.4 abc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
12	AUTHORITY XL	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	14.3 a	53.0 a	12.2 abc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
13	ENVIVE	41.3	WG	0.09	lb ai/a	3.5	oz/a	PRE	A	14.5 a	53.0 a	11.9 a-d
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 10-18-17 Moisture Percent Harvest	GLXMA 10-18-17 Test Weight lb/bu Harvest	GLXMA 10-18-17 Weight lb/plot Harvest
14	SONIC	70	WG	0.175	lb ai/a	4	oz/a	PRE	A	14.4 a	53.0 a	12.2 abc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
15	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	14.4 a	53.0 a	11.2 cd
	WARRANT ULTRA	3.49	CS	1.36	lb ai/a	50	fl oz/a	4-6"W-1	B			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
16	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	14.4 a	53.0 a	12.5 ab
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4-6"W-1	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4-6"W-1	B			
LSD P=.05										0.47	0.16	1.23
Standard Deviation										0.28	0.10	0.74
CV										2.1	0.19	6.56
Replicate F										0.394	0.857	1.056
Replicate Prob(F)										0.6777	0.4347	0.3603
Treatment F										478.109	58026.780	48.058
Treatment Prob(F)										0.0001	0.0001	0.0001

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Soybean Herbicide Showcase from Dow versus Competitors.
Trial ID: 17-2A-W90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Dow (sb showcase).
2. Ratings:
   CI 14 and 28 DA-A; prior to B; 7, 14, and 28 DA-B.
   WC 14 and 28 DA-A; prior to B; 14, 28, and 42 DA-B.
   Get at least one rating prior to B.
3. Yield.
4. Application timings:
   Application B (4-6"W-1) based on weeds in Boundary treatments 8+10, spray all B's on the same day.
   Application C (4-6"W-2) based on weeds in treatments 1-4, spray all C's on the same day.
   If possible spray all B's and C's on the same day.
5. Photos not requested.

Rainfall following application A was 0.30" over 1 day beginning 5 hours after application.
Rainfall following application B+C was 0.33" over 2 days beginning 15 days after application.

There was little to no XANST pressure in check strips from plot 111 to plot 116; weed control ratings were considered missing data in these plots at 13 DA-A (6/9) rating.
XANST pressure was variable throughout the trial.

CI was leaf crinckling and stunting at 6 DA-B+C (6/26); plot 107 had additional leaf necrosis.
CI was stunting at 28 DA-B+C (7/18) and 42 DA-B+C (8/1).

Harvested area per plot = 25' x 5'.

Southern Illinois University

Soybean Weed Resistance Management in Liberty Link Systems.
Trial ID: 17-DSO-DPX-110 Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-19-17

Trial Location

City: De Soto **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62924

Latitude of LL Corner °: 37.79518 N
Longitude of LL Corner °: 89.260716 W
Angle y-axis to North °: 90.00

Objectives:
Evaluate glyphosate-resistant waterhemp control with herbicide systems for Liberty Link soybeans that include a preemergence and a postemergence application.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: P37T09L **BBCH Scale:** BSOY
Description: LL **Maturity Group:** III
Planting Date: 5-19-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 72 F
Soil Moisture: N

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common
Description: glyphosate-resistant

Pest 2 Type: W **Code:** ELEIN Eleusine indica
Common Name: Goosegrass

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: DSO_east_2016
% Sand: 14 **% OM:** 1.93 **Texture:** SIL silt loam
% Silt: 67 **pH:** 7 **Soil Name:** Okaw
% Clay: 19 **CEC:** 9.01

Additional Measured Elements

Element	Quantity	Unit
P1	58	lb/A
K	234	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: SOUTHERN IL AIRPORT (93810) **Distance, Unit:** 1.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-15-17					7	DAY	50	81	F
2.	4-16-17	0.85	IN	RAIN	rain	3	DAY			
3.	4-20-17	1.6	IN	RAIN	rain	3	DAY			
4.	4-22-17					7	DAY	41	77	F
5.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
6.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
7.	4-29-17					7	DAY	45	82	F
8.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
9.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
10.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
11.	5-6-17					7	DAY	42	83	F
12.	5-13-17					7	DAY	50	85	F
13.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
14.	5-20-17					7	DAY	51	84	F
15.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
16.	5-27-17					7	DAY	56	87	F
17.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
18.	6-3-17					7	DAY	54	87	F
19.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
20.	6-10-17					7	DAY	57	92	F
21.	6-15-17	0.13	IN	RAIN	rain	1	DAY			
22.	6-17-17					7	DAY	61	90	F
23.	6-18-17	0.8	IN	RAIN	rain	1	DAY			
24.	6-22-17	0.22	IN	RAIN	rain	1	DAY			
25.	6-23-17	0.8	IN	RAIN	rain	1	DAY			
26.	6-24-17					7	DAY	54	87	F
27.	6-30-17	0.02	IN	RAIN	rain	1	DAY			
28.	7-1-17					7	DAY	63	90	F
29.	7-5-17	0.9	IN	RAIN	rain	3	DAY			
30.	7-8-17					7	DAY	67	93	F
31.	7-13-17	0.69	IN	RAIN	rain	2	DAY			
32.	7-15-17					7	DAY	61	95	F
33.	7-17-17	0.56	IN	RAIN	rain	1	DAY			
34.	7-22-17					7	DAY	69	94	F
35.	7-23-17	0.03	IN	RAIN	rain	1	DAY			
36.	7-27-17	0.02	IN	RAIN	rain	1	DAY			
37.	7-29-17					7	DAY	55	89	F
38.	8-1-17	0.06	IN	RAIN	rain	1	DAY			
39.	8-3-17	0.03	IN	RAIN	rain	1	DAY			
40.	8-5-17					7	DAY	50	78	F
41.	8-6-17	1.35	IN	RAIN	rain	2	DAY			
42.	8-11-17	0.97	IN	RAIN	rain	1	DAY			
43.	8-12-17					7	DAY	56	88	F

Application Description

	A	B
Application Date:	5-22-17	6-16-17
Appl. Start Time:	14:45	12:00
Appl. Stop Time:	15:10	12:40
Interval to Prev. Appl., Unit:		25 DAYS
Application Method:	Spray	Spray
Application Timing:	PRE	28DAP
Application Placement:	BROSOI	BROFOL
Applied By:	BCS	BCS
Air Temperature, Unit:	74 F	89 F
% Relative Humidity:	37	55
Wind Velocity, Unit:	5 MPH	5.5 MPH
Wind Direction:	SE	SE
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	80 F	85 F
Soil Moisture:	ABONOR	NORMAL
% Cloud Cover:	0	0
Next Moisture Occurred On:	5-27-17	6-18-17
Time to Next Moisture, Unit:	5 DAY	3 DAY

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	V4
Stage Minimum, Percent:		V2
Stage Maximum, Percent:		V4
Height, Unit:		5 IN
Height Minimum, Maximum:		4 7

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:		16
Stage Minimum, Percent:		4
Stage Maximum, Percent:		32
Height, Unit:		3 IN
Height Minimum, Maximum:		0.5 5
Density, Unit:		1 FT2
Pest 2 Code, Type, Scale:	ELEIN W	ELEIN W

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	XR
Nozzle Size:	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

Soybean Weed Resistance Management in Liberty Link Systems.
Trial ID: 17-DSO-DPX-110 Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Pest Code													
Crop Code												GLXMA	GLXMA
Rating Date												6-6-17	6-22-17
Rating Type												Injury	Injury
Rating Unit												0-99	0-99
Rating Timing													
Trt-Eval Interval												14 DA-A	28 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			3 c	25 ab
	CINCH	7.64	SC	1.19	lb ai/a	1.25	pt/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
2	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A			0 c	13 cd
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
3	CANOPY	75	WG	0.105	lb ai/a	2.25	oz/a	PRE	A			2 c	10 cde
	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
4	TRIVENCE	61.3	WG			8	oz/a	PRE	A			17 a	18 bc
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A				
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A				
	SENCOR	75	WG	0.223	lb ai/a			PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
5	TRIVENCE	61.3	WG			8	oz/a	PRE	A			23 a	27 ab
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A				
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A				
	SENCOR	75	WG	0.223	lb ai/a			PRE	A				
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
6	COMBO 776							PRE	A			17 a	18 bc
	CLASSIC	25	WG	0.014	lb ai/a			PRE	A				
	SENCOR	75	WG	0.295	lb ai/a			PRE	A				
	VALOR SX	51	WG	0.0575	lb ai/a			PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
7	COMBO 776							PRE	A			20 a	30 a
	CLASSIC	25	WG	0.014	lb ai/a			PRE	A				
	SENCOR	75	WG	0.295	lb ai/a			PRE	A				
	VALOR SX	51	WG	0.0575	lb ai/a			PRE	A				
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
8	COMBO 710							PRE	A			3 c	13 cd
	CLASSIC	25	WG	0.018	lb ai/a			PRE	A				
	SENCOR	75	WG	0.286	lb ai/a			PRE	A				
	CINCH	7.64	SC	1.19	lb ai/a	1.25	pt/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=5
Could not calculate LSD (% mean diff) for columns 17,18,6,9,11 because error mean square = 0.

Pest Code												
Crop Code											GLXMA	GLXMA
Rating Date											6-6-17	6-22-17
Rating Type											Injury	Injury
Rating Unit											0-99	0-99
Rating Timing												
Trt-Eval Interval											14 DA-A	28 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
9	COMBO 710							PRE	A		0 c	10 cde
	CLASSIC	25	WG	0.018	lb ai/a			PRE	A			
	SENCOR	75	WG	0.286	lb ai/a			PRE	A			
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B			
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B			
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B			
10	ENVIVE	41.3	WG			3.5	oz/a	PRE	A		15 ab	12 cd
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A			
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A			
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B			
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B			
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B			
11	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A		7 bc	6 de
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B			
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B			
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B			
12	NONTREATED										0 c	0 e
LSD P=.05										. .	8.6	10.8
Standard Deviation										. .	5.1	6.4
CV										. .	57.06	42.06
Replicate F											0.513	1.518
Replicate Prob(F)											0.6061	0.2413
Treatment F											8.971	5.693
Treatment Prob(F)											0.0001	0.0003

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Missing data estimates are included in columns:Average=5
Could not calculate LSD (% mean diff) for columns 17,18,6,9,11 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
	Crop Code														
	Rating Date									6-6-17	6-22-17	6-28-17	7-10-17	7-10-17	7-31-17
	Rating Type									Residual	Control	Control	Control	Residual	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									14 DA-A	28 DA-A	14 DA-B	28 DA-B	28 DA-B	42 DA-B
1	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	99 a	99 a	97 bcd	98 a	97 a
	CINCH	7.64	SC	1.19	lb ai/a	1.25	pt/a	PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
2	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a	99 a
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
3	CANOPY	75	WG	0.105	lb ai/a	2.25	oz/a	PRE	A	99 a	99 a	98 a	96 d	94 a	95 a
	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
4	TRIVENCE	61.3	WG			8	oz/a	PRE	A	99 a	99 a	99 a	98 abc	99 a	98 a
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A						
	SENCOR	75	WG	0.223	lb ai/a			PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
5	TRIVENCE	61.3	WG			8	oz/a	PRE	A	99 a	99 a	99 a	99 a	98 a	99 a
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A						
	SENCOR	75	WG	0.223	lb ai/a			PRE	A						
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
6	COMBO 776							PRE	A	99 a	99 a	98 a	96 cd	99 a	97 a
	CLASSIC	25	WG	0.014	lb ai/a			PRE	A						
	SENCOR	75	WG	0.295	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.0575	lb ai/a			PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
7	COMBO 776							PRE	A	99 a	99 a	99 a	99 a	99 a	99 a
	CLASSIC	25	WG	0.014	lb ai/a			PRE	A						
	SENCOR	75	WG	0.295	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.0575	lb ai/a			PRE	A						
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
8	COMBO 710							PRE	A	99 a	99 a	99 a	98 abc	97 a	98 a
	CLASSIC	25	WG	0.018	lb ai/a			PRE	A						
	SENCOR	75	WG	0.286	lb ai/a			PRE	A						
	CINCH	7.64	SC	1.19	lb ai/a	1.25	pt/a	PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						

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Missing data estimates are included in columns:Average=5
Could not calculate LSD (% mean diff) for columns 17,18,6,9,11 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
	Crop Code														
	Rating Date									6-6-17	6-22-17	6-28-17	7-10-17	7-10-17	7-31-17
	Rating Type									Residual	Control	Control	Control	Residual	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									14 DA-A	28 DA-A	14 DA-B	28 DA-B	28 DA-B	42 DA-B
9	COMBO 710							PRE	A	99 a	99 a	99 a	99 a	99 a	99 a
	CLASSIC	25	WG	0.018	lb ai/a			PRE	A						
	SENCOR	75	WG	0.286	lb ai/a			PRE	A						
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
10	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	99 a	99 a	98 a	98 ab	99 a	98 a
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A						
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A						
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
11	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	99 a	99 a	98 a	98 ab	98 a	98 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B						
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B						
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B						
12	NONTREATED									0	0	0	0	0	0
	LSD P=.05									.	0.3	1.1	1.7	2.8	2.8
	Standard Deviation									0.0	0.2	0.6	1.0	1.6	1.6
	CV									0.0	0.18	0.65	1.02	1.66	1.66
	Replicate F									0.000	1.000	2.847	1.135	1.114	0.722
	Replicate Prob(F)									1.0000	0.3855	0.0817	0.3413	0.3479	0.4978
	Treatment F									0.000	1.000	1.328	3.742	2.168	1.599
	Treatment Prob(F)									1.0000	0.4755	0.2815	0.0058	0.0676	0.1783

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Missing data estimates are included in columns:Average=5
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Pest Code									ELEIN	ELEIN	ELEIN	ELEIN
Crop Code												
Rating Date									6-22-17	6-28-17	7-10-17	7-31-17
Rating Type									Control	Control	Control	Control
Rating Unit									0-99	0-99	0-99	0-99
Rating Timing												
Trt-Eval Interval									28 DA-A	14 DA-B	28 DA-B	42 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	99 a	99 a	99 a
	CINCH	7.64	SC	1.19	lb ai/a	1.25	pt/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
2	CANOPY	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	99 a	99 a	99 a	99 ab
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
3	CANOPY	75	WG	0.105	lb ai/a	2.25	oz/a	PRE	A	99 a	99 a	99 a	98 b
	BOUNDARY	6.5	EC	1.22	lb ai/a	1.5	pt/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
4	TRIVENCE	61.3	WG			8	oz/a	PRE	A	99 a	99 a	99 a	98 b
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A				
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A				
	SENCOR	75	WG	0.223	lb ai/a			PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
5	TRIVENCE	61.3	WG			8	oz/a	PRE	A	99 a	99 a	99 a	98 ab
	CLASSIC	25	WG	0.0195	lb ai/a			PRE	A				
	VALOR SX	51	WG	0.064	lb ai/a			PRE	A				
	SENCOR	75	WG	0.223	lb ai/a			PRE	A				
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
6	COMBO 776							PRE	A	99 a	99 a	99 a	99 a
	CLASSIC	25	WG	0.014	lb ai/a			PRE	A				
	SENCOR	75	WG	0.295	lb ai/a			PRE	A				
	VALOR SX	51	WG	0.0575	lb ai/a			PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
7	COMBO 776							PRE	A	99 a	99 a	99 a	97 c
	CLASSIC	25	WG	0.014	lb ai/a			PRE	A				
	SENCOR	75	WG	0.295	lb ai/a			PRE	A				
	VALOR SX	51	WG	0.0575	lb ai/a			PRE	A				
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
8	COMBO 710							PRE	A	99 a	99 a	99 a	99 ab
	CLASSIC	25	WG	0.018	lb ai/a			PRE	A				
	SENCOR	75	WG	0.286	lb ai/a			PRE	A				
	CINCH	7.64	SC	1.19	lb ai/a	1.25	pt/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									ELEIN	ELEIN	ELEIN	ELEIN
	Crop Code												
	Rating Date									6-22-17	6-28-17	7-10-17	7-31-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing												
	Trt-Eval Interval									28 DA-A	14 DA-B	28 DA-B	42 DA-B
9	COMBO 710							PRE	A	99 a	99 a	98 a	99 ab
	CLASSIC	25	WG	0.018	lb ai/a			PRE	A				
	SENCOR	75	WG	0.286	lb ai/a			PRE	A				
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
10	ENVIVE	41.3	WG			3.5	oz/a	PRE	A	99 a	99 a	99 a	99 a
	CLASSIC	25	WG	0.02	lb ai/a			PRE	A				
	VALOR SX	51	WG	0.0639	lb ai/a			PRE	A				
	HARMONY SG	50	SG	0.00643	lb ai/a			PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
11	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	28DAP	B				
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	28DAP	B				
	AMS	100	SG	2	lb/a	2	lb/a	28DAP	B				
12	NONTREATED									0	0	0	0
	LSD P=.05									.	.	0.6	1.0
	Standard Deviation									0.0	0.0	0.3	0.6
	CV									0.0	0.0	0.34	0.58
	Replicate F									0.000	0.000	1.892	0.092
	Replicate Prob(F)									1.0000	1.0000	0.1768	0.9127
	Treatment F									0.000	0.000	1.405	3.505
	Treatment Prob(F)									1.0000	1.0000	0.2475	0.0082

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=5
Could not calculate LSD (% mean diff) for columns 17,18,6,9,11 because error mean square = 0.

Southern Illinois University

Soybean Weed Resistance Management in Liberty Link Systems.
Trial ID: 17-DSO-DPX-110 Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: DuPont (USA-17-110).
2. Ratings:
   CI at 14 and 28 days after planting.
   WC at 14 DA-A, 0, 14, 28, and 42 DA-B, rate before spray application B.
   Target waterhemp and rate other weeds.
   Rate residual at 14 DA-A and 0 DA-B, then burndown 14 DA-B, then back to residual control.
   For each weed rated, at each rating time, note size of weeds that are not being controlled.
   AMATA rating of 97%-98% 14 DA-B is incomplete dessication of a very few plants following the POST application.
   AMATA control at 28 DA-B is burndown control; lack of control at this timing is due to regrowth.
   AMATA rating of 90% is 20+ plants of 3-6" in height (regrowth, branching).
   AMATA rating of 95%-98% is a couple of plants with regrowth.
   Pictures available upon requeset from 14 DA-A and 28 DA-B.
3. Yield not requested.
4. Photos not requested, perhaps at the POST timing.
5. Blanket applications to start clean includes an early burndown and again at planting.
6. Application B is 28 DAP, but sooner if waterhemp is getting big, if PREs break too soon.

   The first rainfall following application A was 0.63" beginning 5 days afer application.
   The first rainfall following application B was 0.8" beginning 36 hours after application.

Southern Illinois University

Comparison of New Soybean Herbicide Traits. (DEMONSTRATION)
Trial ID: 17-10B-N330 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 6-1-17
Completion Date: 7-13-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.516313 N
Longitude of LL Corner °: 89.841208 W

Objectives:
Demonstrate weed control with new soybean herbicide traits.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: See comments **BBCH Scale:** BSOY
Description: See treatment list

Planting Date: 6-1-17
Planting Method: SEEDED

Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 69 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 4 Type: W **Code:** IPOHE Ipomoea hederacea (L.) Jacq.
Common Name: morningglory, ivyleaf

Pest 5 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Pest 6 Type: W **Code:** CYPES Cyperus esculentus L.
Common Name: nutsedge, yellow

Pest 7 Type: W **Code:** PANDI Panicum dichotomiflorum Michx.
Common Name: panicum, fall

Pest 8 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 80 FT **Total Plot Length:** 80 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 1 **Study Design:** NONRAN Non-Randomized

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 150 LB/A

Soil Description

Description Name: 10B_2013
% OM: 2.8 **Texture:** SIL silt loam
pH: 6.4 **Soil Name:** Pierron
CEC: 9

Additional Measured Elements

Element	Quantity	Unit
P1	80	lb/A
K	335	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-6-17					7	DAY	43	87	F
2.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
3.	5-13-17					7	DAY	51	87	F
4.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
5.	5-20-17					7	DAY	50	80	F
6.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
7.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
8.	5-27-17					7	DAY	55	87	F
9.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
10.	6-3-17					7	DAY	54	89	F
11.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
12.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
13.	6-17-17					7	DAY	62	92	F
14.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
15.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
16.	6-24-17					7	DAY	53	91	F
17.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
18.	7-1-17					7	DAY	60	93	F
19.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
20.	7-8-17					7	DAY	67	98	F
21.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
22.	7-15-17					7	DAY	60	91	F
23.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
24.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
25.	7-22-17					7	DAY	69	99	F
26.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
27.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
28.	7-29-17					7	DAY	61	83	F
29.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
30.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
31.	8-5-17					7	DAY	55	87	F
32.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
33.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
34.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
35.	8-12-17					7	DAY	56	84	F
36.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
37.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
38.	8-19-17					7	DAY	56	94	F
39.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
40.	8-26-17					7	DAY	56	86	F
41.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
42.	9-2-17					7	DAY	47	95	F

Comment:
Rainfall was recorded on station and provided by Illinois Climate Network. Air temperature was recorded at Scott Air Force Base 2.5 miles north and provided by NOAA's National Centers for Environmental Information. Air temperatures given are summarized as weekly high and low, detailed weather data is available on request.

Application Description

	A	B	C	D
Application Date:	6-1-17	6-20-17	6-20-17	6-21-17
Appl. Start Time:	7:20	8:30	8:30	11:00
Appl. Stop Time:	7:20	8:50	8:50	11:30
Interval to Prev. Appl., Unit:		19 DAYS	19 DAYS	1 DAYS
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	2-4"W	2-4"W	V4
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	MCG	MCG	MCG	RFK
Air Temperature, Unit:	80 F	85 F	85 F	88 F
% Relative Humidity:	38	41	41	59
Wind Velocity, Unit:	0 MPH	6 MPH	6 MPH	3 MPH
Wind Direction:		SW	SW	SW
Dew Presence (Y/N):	N	Y	Y	N
Soil Temperature, Unit:	69 F	74 F	74 F	76 F
Soil Moisture:	NORMAL	ABONOR	ABONOR	NORMAL
% Cloud Cover:	30	0	0	0
Next Moisture Occurred On:	6-4-17	6-23-17	6-23-17	6-23-17
Time to Next Moisture, Unit:	4 DAY	36 HR	36 HR	48 HR

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	V1	V1	V1
Stage Minimum, Percent:		V1	V1	V1
Stage Maximum, Percent:		V2	V2	V2
Height, Unit:		5 IN	5 IN	5 IN
Height Minimum, Maximum:		4 6	4 6	4 6

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:	N/A	4.5	4	4
Stage Minimum, Percent:		COT	COT	4
Stage Maximum, Percent:		7	4	6
Height, Unit:		5 IN	4 IN	4 IN
Height Minimum, Maximum:		1 8	0.4 4.5	2 4
Density, Unit:		15 FT2	5 FT2	5 IN
Pest 2 Code, Type, Scale:	AMATA W	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	N/A	3	4	N/A
Stage Minimum, Percent:		COT	COT	
Stage Maximum, Percent:		7	6	
Height, Unit:		2 IN	1.5 IN	
Height Minimum, Maximum:		0.2 4	0.2 2.5	
Density, Unit:		1 FT2	0.025 FT2	
Pest 3 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	N/A	6	6	4
Stage Minimum, Percent:		4	COT	4
Stage Maximum, Percent:		8	6	6
Height, Unit:		6 IN	3 IN	2 IN
Height Minimum, Maximum:		5 7	0.3 7	2 4
Density, Unit:		0.05 FT2	0.01 FT2	0.01 FT2
Pest 4 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W	IPOHE W
Stage Majority, Percent:	N/A	6	4	8
Stage Minimum, Percent:		COT	COT	4
Stage Maximum, Percent:		8	5	8
Height, Unit:		6 IN	4 IN	3 IN
Height Minimum, Maximum:		0.5 8	0.4 5	2 4
Density, Unit:		0.02 FT2	0.01 FT2	0.1 FT2
Pest 5 Code, Type, Scale:	XANST W	XANST W	XANST W	XANST W
Stage Majority, Percent:	N/A	6	4	4
Stage Minimum, Percent:		COT	3	3
Stage Maximum, Percent:		5	6	5
Height, Unit:		8 IN	4 IN	3 IN
Height Minimum, Maximum:		1 11	1.5 7	2 4
Density, Unit:		0.01 FT2	0.01 FT2	0.01 FT2
Pest 6 Code, Type, Scale:	CYPES W	CYPES W	CYPES W	CYPES W
Stage Majority, Percent:	N/A	6	6	6
Stage Minimum, Percent:		2	2	2
Stage Maximum, Percent:		8	8	8
Height, Unit:		0.3 IN	0.3 IN	6 IN
Height Minimum, Maximum:		0.1 0.5	0.1 0.5	4 6
Density, Unit:		4 FT2	4 FT2	3 FT2
Pest 7 Code, Type, Scale:	PANDI W	PANDI W	PANDI W	PANDI W
Stage Majority, Percent:	N/A	3	2	N/A
Stage Minimum, Percent:		1	1	
Stage Maximum, Percent:		4	3	
Height, Unit:		3 IN	1 IN	
Height Minimum, Maximum:		0.3 4	0.2 3	
Density, Unit:		50 FT2	10 FT2	
Pest 8 Code, Type, Scale:	SETFA W	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:	N/A	N/A	N/A	5
Stage Minimum, Percent:				4
Stage Maximum, Percent:				5
Height, Unit:				4 IN
Height Minimum, Maximum:				2 4
Density, Unit:				2 FT2

Application Equipment

	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	See	See	See	See
Nozzle Size:	comment	comment	comment	comment
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA

Southern Illinois University

Comparison of New Soybean Herbicide Traits. (DEMONSTRATION)
Trial ID: 17-10B-N330 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ABUTH	AMATA	AMBTR	IPOHE	XANST	CYPES	PANDI
	Pest Code									ABUTH	AMATA	AMBTR	IPOHE	XANST	CYPES	PANDI
	Crop Code															
	Rating Date									6-21-17	6-21-17	6-21-17	6-21-17	6-21-17	6-21-17	6-21-17
	Rating Type									Control	Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing															
	Trt-Eval Interval									21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
1	DT SOYBEAN									0	0	0	0	0	0	0
	NONTREATED															
2	DT SOYBEAN									.	.	.	.	.	.	.
	TTI NOZZLES							2-4"W	B							
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	2-4"W	B							
3	DT SOYBEAN									.	.	.	.	.	.	.
	TTI NOZZLES							2-4"W	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	2-4"W	B							
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	2-4"W	B							
4	DT SOYBEAN									80	99	90	90	90	0	.
	XR NOZZLES							PRE	A							
	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A							
	TTI NOZZLES							V2	C							
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V2	C							
	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	V2	C							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V2	C							
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V2	C							
5	DT SOYBEAN									80	99	95	90	90	0	.
	XR NOZZLES							PRE	A							
	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A							
	TTI NOZZLES							V4	D							
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	V4	D							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V4	D							
	WARRANT	3	CS	1.13	lb ai/a	1.5	qt/a	V4	D							
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	V4	D							
6	DT SOYBEAN									90	99	99	90	99	0	.
	TTI NOZZLES							PRE	A							
	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A							
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A							
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	D							
	TTI NOZZLES							V4	D							
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	V4	D							
	ROUNDUP POWERMAX	4.5	SL	1	lb ae/a	28.4	fl oz/a	V4	D							
	WARRANT	3	CS	1.13	lb ai/a	1.5	qt/a	V4	D							
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	V4	D							
7	DT SOYBEAN									95	99	99	95	99	50	.
	TTI NOZZLES							PRE	A							
	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A							
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A							
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	D							
	XR NOZZLES							V4	D							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V4	D							
	WARRANT	3	CS	1.13	lb ai/a	1.5	qt/a	V4	D							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V4	D							
8	RR2 TRT (DT SOYBEAN)									50	90	90	90	90	50	.
	XR NOZZLES							PRE	A							
	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A							
	XR NOZZLES							V2	C							
	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	V2	C							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V2	C							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V2	C							
9	RR2 TRT (DT SOYBEAN)									0	0	0	0	0	0	.
	NONTREATED															

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8 because error mean square = 0.

Pest Code										ABUTH	AMATA	AMBTR	IPOHE	XANST	CYPES	PANDI
Crop Code																
Rating Date										6-21-17	6-21-17	6-21-17	6-21-17	6-21-17	6-21-17	6-21-17
Rating Type										Control	Control	Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing																
Trt-Eval Interval										21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
10	FG72 BALANCE BEAN									80	99	90	80	99	85	.
	XR NOZZLES							PRE	A							
	BALANCE BEAN	4	SC	0.094	lb ai/a	3	fl oz/a	PRE	A							
	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	16	fl oz/a	PRE	A							
	XR NOZZLES							2-4"W	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B							
11	FG72 BALANCE BEAN									80	99	90	80	95	85	.
	XR NOZZLES							PRE	A							
	BALANCE BEAN	4	SC	0.094	lb ai/a	3	fl oz/a	PRE	A							
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A							
	XR NOZZLES							2-4"W	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B							
12	FG72 BALANCE BEAN									80	99	90	80	95	85	.
	XR NOZZLES							PRE	A							
	BALANCE BEAN	4	SC	0.094	lb ai/a	3	fl oz/a	PRE	A							
	SENCOR DF	75	DF	0.25	lb ai/a	5.33	oz/a	PRE	A							
	XR NOZZLES							2-4"W	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B							
13	FG72 BALANCE BEAN									80	99	90	80	95	85	.
	XR NOZZLES							PRE	A							
	BALANCE BEAN	4	SC	0.094	lb ai/a	3	fl oz/a	PRE	A							
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	PRE	A							
	XR NOZZLES							2-4"W	B							
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B							
14	ENLIST SOYBEAN									80	99	90	99	99	90	.
	XR NOZZLES							PRE	A							
	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A							
	TTI NOZZLES							2-4"W	B							
	ENLIST DUO	3.34	SL	1.96	lb ae/a	75	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B							
15	ENLIST SOYBEAN									90	99	90	99	99	85	.
	XR NOZZLES							PRE	A							
	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A							
	TTI NOZZLES							2-4"W	B							
	ENLIST DUO	3.34	SL	1.96	lb ae/a	75	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B							
16	ENLIST SOYBEAN									80	99	90	99	99	90	.
	XR NOZZLES							PRE	A							
	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A							
	XR NOZZLES							2-4"W	B							
	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B							
17	LL SOYBEAN									80	99	90	90	90	0	.
	XR NOZZLES							PRE	A							
	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A							
	XR NOZZLES							V2	C							
	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	V2	C							
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V2	C							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V2	C							

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8 because error mean square = 0.

Pest Code										ABUTH	AMATA	AMBTR	IPOHE	XANST	CYPES	PANDI
Crop Code																
Rating Date										6-21-17	6-21-17	6-21-17	6-21-17	6-21-17	6-21-17	6-21-17
Rating Type										Control	Control	Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing																
Trt-Eval Interval										21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
18	LL SOYBEAN									50	99	90	90	99	0	.
	XR NOZZLES							PRE	A							
	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A							
	XR NOZZLES							V4	D							
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V4	D							
	WARRANT	3	CS	1.13	lb ai/a	1.5	qt/a	V4	D							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V4	D							
19	LL SOYBEAN									50	99	90	90	99	0	.
	XR NOZZLES							PRE	A							
	TRIVENCE	61.3	WG	0.307	lb ai/a	8	oz/a	PRE	A							
	XR NOZZLES							2-4"W	B							
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	B							
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	2-4"W	B							
20	LL SOYBEAN									80	99	90	90	99	50	.
	XR NOZZLES							PRE	A							
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A							
	XR NOZZLES							V2	C							
	ANTHEM MAXX	4.3	SC	0.101	lb ai/a	3	fl oz/a	V2	C							
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V2	C							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V2	C							
21	LL SOYBEAN									0	99	50	50	50	85	.
	XR NOZZLES							PRE	A							
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A							
	XR NOZZLES							2-4"W	B							
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	2-4"W	B							
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	2-4"W	B							
22	LL SOYBEAN									80	99	90	90	99	50	.
	XR NOZZLES							PRE	A							
	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A							
	XR NOZZLES							2-4"W	B							
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	2-4"W	B							
23	LL SOYBEAN									50	95	90	90	99	85	.
	XR NOZZLES							PRE	A							
	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A							
	XR NOZZLES							2-4"W	B							
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	B							
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	2-4"W	B							
24	LL SOYBEAN									0	0	0	0	0	0	0
	NONTREATED															
LSD P=.05										.	.	.	.	.	.	.
Standard Deviation										.	.	.	.	.	.	.
CV										.	.	.	.	.	.	.

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Could not calculate LSD (% mean diff) for columns 1,2,3,4,5,6,7,8 because error mean square = 0.

Pest Code	SETFA
Crop Code	
Rating Date	6-21-17
Rating Type	Control
Rating Unit	0-99
Rating Timing	
Trt-Eval Interval	21 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	DT SOYBEAN									0
	NONTREATED									
2	DT SOYBEAN									.
	TTI NOZZLES							2-4"W	B	
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	2-4"W	B	
3	DT SOYBEAN									.
	TTI NOZZLES							2-4"W	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B	
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	2-4"W	B	
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	2-4"W	B	
4	DT SOYBEAN									99
	XR NOZZLES							PRE	A	
	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	
	TTI NOZZLES							V2	C	
	ENGENIA	5	SL	0.5	lb ae/a	12.8	fl oz/a	V2	C	
	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	V2	C	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V2	C	
	PREFERENCE	100	SL	0.25	% v/v	0.25	% v/v	V2	C	
5	DT SOYBEAN									0
	XR NOZZLES							PRE	A	
	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	
	TTI NOZZLES							V4	D	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	V4	D	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V4	D	
	WARRANT	3	CS	1.13	lb ai/a	1.5	qt/a	V4	D	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	V4	D	
6	DT SOYBEAN									0
	TTI NOZZLES							PRE	A	
	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	D	
	TTI NOZZLES							V4	D	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	V4	D	
	ROUNDUP POWERMAX	4.5	SL	1	lb ae/a	28.4	fl oz/a	V4	D	
	WARRANT	3	CS	1.13	lb ai/a	1.5	qt/a	V4	D	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	V4	D	
7	DT SOYBEAN									0
	TTI NOZZLES							PRE	A	
	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	D	
	XR NOZZLES							V4	D	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V4	D	
	WARRANT	3	CS	1.13	lb ai/a	1.5	qt/a	V4	D	
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V4	D	
8	RR2 TRT (DT SOYBEAN)									99
	XR NOZZLES							PRE	A	
	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	
	XR NOZZLES							V2	C	
	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	V2	C	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V2	C	
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V2	C	
9	RR2 TRT (DT SOYBEAN)									0
	NONTREATED									

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Southern Illinois University

Pest Code	SETFA
Crop Code	
Rating Date	6-21-17
Rating Type	Control
Rating Unit	0-99
Rating Timing	
Trt-Eval Interval	21 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
10	FG72 BALANCE BEAN									99
	XR NOZZLES							PRE	A	
	BALANCE BEAN	4	SC	0.094	lb ai/a	3	fl oz/a	PRE	A	
	DUAL II MAGNUM	7.64	EC	0.955	lb ai/a	16	fl oz/a	PRE	A	
	XR NOZZLES							2-4"W	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B	
11	FG72 BALANCE BEAN									99
	XR NOZZLES							PRE	A	
	BALANCE BEAN	4	SC	0.094	lb ai/a	3	fl oz/a	PRE	A	
	ZIDUA	85	WG	0.08	lb ai/a	1.5	oz/a	PRE	A	
	XR NOZZLES							2-4"W	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B	
12	FG72 BALANCE BEAN									99
	XR NOZZLES							PRE	A	
	BALANCE BEAN	4	SC	0.094	lb ai/a	3	fl oz/a	PRE	A	
	SENCOR DF	75	DF	0.25	lb ai/a	5.33	oz/a	PRE	A	
	XR NOZZLES							2-4"W	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B	
13	FG72 BALANCE BEAN									99
	XR NOZZLES							PRE	A	
	BALANCE BEAN	4	SC	0.094	lb ai/a	3	fl oz/a	PRE	A	
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	PRE	A	
	XR NOZZLES							2-4"W	B	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B	
14	ENLIST SOYBEAN									0
	XR NOZZLES							PRE	A	
	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	
	TTI NOZZLES							2-4"W	B	
	ENLIST DUO	3.34	SL	1.96	lb ae/a	75	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B	
15	ENLIST SOYBEAN									0
	XR NOZZLES							PRE	A	
	SURVEIL	48	WG	0.126	lb ai/a	4.2	oz/a	PRE	A	
	TTI NOZZLES							2-4"W	B	
	ENLIST DUO	3.34	SL	1.96	lb ae/a	75	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B	
16	ENLIST SOYBEAN									0
	XR NOZZLES							PRE	A	
	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	
	XR NOZZLES							2-4"W	B	
	DURANGO DMA	4	SL	1	lb ae/a	32	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	2-4"W	B	
17	LL SOYBEAN									99
	XR NOZZLES							PRE	A	
	OPTILL	68	WG	0.085	lb ai/a	2	oz/a	PRE	A	
	XR NOZZLES							V2	C	
	OUTLOOK	6	EC	0.75	lb ai/a	16	fl oz/a	V2	C	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V2	C	
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V2	C	

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Southern Illinois University

Pest Code	SETFA
Crop Code	
Rating Date	6-21-17
Rating Type	Control
Rating Unit	0-99
Rating Timing	
Trt-Eval Interval	21 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
18	LL SOYBEAN									0
	XR NOZZLES							PRE	A	
	ROWEL FX	40.3	WG	0.0756	lb ai/a	3.0	oz/a	PRE	A	
	XR NOZZLES							V4	D	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V4	D	
	WARRANT	3	CS	1.13	lb ai/a	1.5	qt/a	V4	D	
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V4	D	
19	LL SOYBEAN									0
	XR NOZZLES							PRE	A	
	TRIVENCE	61.3	WG	0.307	lb ai/a	8	oz/a	PRE	A	
	XR NOZZLES							2-4"W	B	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	B	
	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	2-4"W	B	
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	2-4"W	B	
20	LL SOYBEAN									0
	XR NOZZLES							PRE	A	
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	
	XR NOZZLES							V2	C	
	ANTHEM MAXX	4.3	SC	0.101	lb ai/a	3	fl oz/a	V2	C	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	V2	C	
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	V2	C	
21	LL SOYBEAN									99
	XR NOZZLES							PRE	A	
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	
	XR NOZZLES							2-4"W	B	
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	2-4"W	B	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	2-4"W	B	
22	LL SOYBEAN									99
	XR NOZZLES							PRE	A	
	FIERCE XLT	62.41	WG	0.176	lb ai/a	4.5	oz/a	PRE	A	
	XR NOZZLES							2-4"W	B	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	2-4"W	B	
23	LL SOYBEAN									0
	XR NOZZLES							PRE	A	
	SONIC	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A	
	XR NOZZLES							2-4"W	B	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	B	
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	2-4"W	B	
24	LL SOYBEAN									0
	NONTREATED									
LSD P=.05										.
Standard Deviation										.
CV										.

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Southern Illinois University

Comparison of New Soybean Herbicide Traits. (DEMONSTRATION)
Trial ID: 17-10B-N330 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: SIU/RFK. (DEMONSTRATION) - STEWARDED
2. Ratings: None requested.
3. No yield (crop-destruct).
4. Soybean varieties are per treatment, see treatment list.
   Nozzles are per treatment, see treatment list.
5. Application D is V4 and 4 inch weeds or less.
6. Report Enlist planting within 5 days.
7. Photos as needed but especially at each POST timing.

Rainfall following application A was 0.40" over 2 days beginning 67 hours after application.

The first substantial rain event following applications B+C and D was 0.33" over 2 days beginning 14-15 days after application.

Southern Illinois University

Evaluation of PPO Herbicides in a Liberty Link Soybean System.
Trial ID: 17-19B-N35 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-25-17
Completion Date: 7-11-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.519284 N
Longitude of LL Corner °: 89.844307 W USAIL 42.5083389 - 36.9702949
Altitude of LL Corner, Unit: 435.00 FT -87.0199279 - -91.5130844
Angle y-axis to North °: 270.00

Objectives:
Demonstrate Fierce (3 oz/A), Cobra (12.5 floz/A) and Resource (4 floz/A) fit in a Liberty Link weed control system.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Pioneer 37T09L **BBCH Scale:** BSOY
Description: LL
Planting Date: 5-25-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 66.4 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 4 Type: W **Code:** IPOHE Ipomoea hederacea (L.) Jacq.
Common Name: morningglory, ivyleaf

Pest 5 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Pest 6 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 100 LB/A, K2O 200 LB/A

Soil Description

Description Name: 19B_2013
% OM: 3.5 **Texture:** SIL silt loam
pH: 6.6 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	54	lb/A
K	335	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	39	70	F
2.	4-2-17	1.85	IN	RAIN	rain	5	DAY			
3.	4-8-17					7	DAY	39	81	F
4.	4-10-17	0.12	IN	RAIN	rain	1	DAY			
5.	4-14-17	0.21	IN	RAIN	rain	1	DAY			
6.	4-15-17					7	DAY	49	86	F
7.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
8.	4-22-17					7	DAY	41	80	F
9.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
10.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
11.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
12.	4-29-17					7	DAY	45	77	F
13.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
14.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
15.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
16.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
17.	5-6-17					7	DAY	43	87	F
18.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
19.	5-13-17					7	DAY	51	87	F
20.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
21.	5-20-17					7	DAY	50	80	F
22.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
23.	5-27-17					7	DAY	55	87	F
24.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
25.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
26.	6-3-17					7	DAY	54	89	F
27.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
28.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
29.	6-17-17					7	DAY	62	92	F
30.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
31.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
32.	6-24-17					7	DAY	53	91	F
33.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
34.	7-1-17					7	DAY	60	93	F
35.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
36.	7-8-17					7	DAY	67	98	F
37.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
38.	7-15-17					7	DAY	60	91	F
39.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
40.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
41.	7-22-17					7	DAY	69	99	F
42.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
43.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
44.	7-29-17					7	DAY	61	83	F

Application Description

	A	B	C
Application Date:	5-27-17	6-15-17	6-29-17
Appl. Start Time:	9:52	15:23	7:07
Appl. Stop Time:	9:54	15:30	7:25
Interval to Prev. Appl., Unit:		19 DAYS	14 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	21DAP	35DAP
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RLS	MCG	CC
Air Temperature, Unit:	79 F	84 F	76 F
% Relative Humidity:	63	51	73
Wind Velocity, Unit:	0 MPH	7 MPH	9 MPH
Wind Direction:	NA	N	SW
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	69.1 F	74.6 F	73.3 F
Soil Moisture:	NORMAL	ABONOR	ABONOR
% Cloud Cover:	30	5	0
Next Moisture Occurred On:	5-27-17	6-18-17	7-5-17
Time to Next Moisture, Unit:	7 HR	3 DAY	6 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	V2	V6
Stage Minimum, Percent:		V2	V6
Stage Maximum, Percent:		V2	V6
Height, Unit:		5.5 IN	16 IN
Height Minimum, Maximum:		5 6	15 17

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:	NA	6	3
Stage Minimum, Percent:		COT	2
Stage Maximum, Percent:		7	6
Height, Unit:		6 IN	3.5 IN
Height Minimum, Maximum:		2 8	1 20
Density, Unit:		0.2 FT2	0.5 FT2
Pest 2 Code, Type, Scale:	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	NA	7	7
Stage Minimum, Percent:		4	7
Stage Maximum, Percent:		16	31
Height, Unit:		4 IN	4 IN
Height Minimum, Maximum:		0.5 7	4 19
Density, Unit:		0.9 FT2	0.3 FT2
Pest 3 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	NA	8	6
Stage Minimum, Percent:		COT	COT
Stage Maximum, Percent:		10	10
Height, Unit:		5 IN	8 IN
Height Minimum, Maximum:		0.2 7	0.2 26
Density, Unit:		0.8 FT2	0.3 FT2
Pest 4 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W
Stage Majority, Percent:	NA	5	7
Stage Minimum, Percent:		4	6
Stage Maximum, Percent:		7	9
Height, Unit:		4.5 IN	4 IN
Height Minimum, Maximum:		2 7.5	2 20
Density, Unit:		0.4 FT2	0.1 FT2
Pest 5 Code, Type, Scale:	XANST W	XANST W	XANST W
Stage Majority, Percent:	NA	5	5
Stage Minimum, Percent:		2	5
Stage Maximum, Percent:		9	6
Height, Unit:		4 IN	6 IN
Height Minimum, Maximum:		0.3 7	7 29
Density, Unit:		20 FT2	20 FT2
Pest 6 Code, Type, Scale:	SETFA W	SETFA W	SETFA W

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

Evaluation of PPO Herbicides in a Liberty Link Soybean System.
Trial ID: 17-19B-N35 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
Pest Code													
Crop Code										GLXMA	GLXMA	GLXMA	GLXMA
Rating Date										6-21-17	6-29-17	7-6-17	7-13-17
Rating Type										Injury	Injury	Injury	Injury
Rating Unit										0-99	0-99	0-99	0-99
Rating Timing											33 DA-A	40 DA-A	47 DA-A
Trt-Eval Interval										6 DA-B	14 DA-B	21 DA-B	28 DA-B
1	NONTREATED									0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	0 c	0 b	1 c	0 b
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	0 c	0 b	2 b	0 b
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
4	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	10 b	3 b	1 bc	0 b
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	21DAP	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	32 a	18 a	1 bc	0 b
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	21DAP	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
6	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	35DAP	C	0 c	0 b	5 a	2 a
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	35DAP	C				
	AMS	100	SG	4	% w/w	5	lb/a	35DAP	C				
LSD P=.05										2.4	5.4	1.0	.
Standard Deviation										1.3	2.9	0.5	0.0
CV										15.49	68.87	25.76	0.0
Replicate F										1.000	0.502	3.059	0.000
Replicate Prob(F)										0.4096	0.6232	0.1031	1.0000
Treatment F										340.000	22.861	37.882	0.000
Treatment Prob(F)										0.0001	0.0002	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 24,7 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code									ABUTH	ABUTH	ABUTH	ABUTH	AMATA	AMATA
	Crop Code														
	Rating Date									6-21-17	6-29-17	7-6-17	7-13-17	6-21-17	6-29-17
	Rating Type									Control	Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing										33 DA-A	40 DA-A	47 DA-A	25 DA-A	33 DA-A
	Trt-Eval Interval									6 DA-B	14 DA-B	21 DA-B	28 DA-B	6 DA-B	14 DA-B
1	NONTREATED									0	0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	99 a	97 ab	99 a	99 a	97 b	96 b
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C						
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C						
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C						
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	99 a	98 ab	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B						
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C						
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C						
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C						
4	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	99 a	97 b	99 a	99 a	99 a	97 ab
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	21DAP	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B						
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C						
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C						
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C						
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	99 a	99 a	99 a	99 a	99 a	99 a
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	21DAP	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B						
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B						
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C						
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C						
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C						
6	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	35DAP	C	0 b	0 c	92 b	92 b	0 c	0 c
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	35DAP	C						
	AMS	100	SG	4	% w/w	5	lb/a	35DAP	C						
	LSD P=.05									.	1.5	4.0	3.4	1.5	3.1
	Standard Deviation									0.0	0.8	2.1	1.8	0.8	1.6
	CV									0.0	1.02	2.16	1.85	0.98	2.1
	Replicate F									0.000	3.895	1.094	1.000	1.000	0.321
	Replicate Prob(F)									1.0000	0.0659	0.3803	0.4096	0.4096	0.7344
	Treatment F									0.000	9069.843	7.101	8.163	9706.001	2118.482
	Treatment Prob(F)									1.0000	0.0001	0.0096	0.0063	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Could not calculate LSD (% mean diff) for columns 24,7 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
Pest Code										AMBTR	AMBTR	AMBTR	AMBTR
Crop Code													
Rating Date										6-21-17	6-29-17	7-6-17	7-13-17
Rating Type										Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99
Rating Timing										25 DA-A	33 DA-A	40 DA-A	47 DA-A
Trt-Eval Interval										6 DA-B	14 DA-B	21 DA-B	28 DA-B
1	NONTREATED									0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	96 c	99 a	99 a	99 a
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	97 b	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
4	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	97 b	98 a	99 a	99 a
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	21DAP	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	99 a	98 a	99 a	99 a
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	21DAP	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
6	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	35DAP	C	0 d	0 b	93 b	99 a
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	35DAP	C				
	AMS	100	SG	4	% w/w	5	lb/a	35DAP	C				
LSD P=.05										1.0	1.6	0.7	0.5
Standard Deviation										0.5	0.9	0.4	0.3
CV										0.71	1.09	0.4	0.26
Replicate F										1.556	0.091	0.444	1.000
Replicate Prob(F)										0.2687	0.9140	0.6561	0.4096
Treatment F										18861.669	7925.092	156.667	1.000
Treatment Prob(F)										0.0001	0.0001	0.0001	0.4609

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Could not calculate LSD (% mean diff) for columns 24,7 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									IPOHE	IPOHE	IPOHE
	Crop Code											
	Rating Date									6-29-17	7-6-17	7-13-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing									33 DA-A	40 DA-A	47 DA-A
	Trt-Eval Interval									14 DA-B	21 DA-B	28 DA-B
1	NONTREATED									0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	10 bc	99 a	97 a
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C			
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C			
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C			
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	94 a	99 a	97 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B			
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C			
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C			
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C			
4	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	10 bc	99 a	97 a
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	21DAP	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B			
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C			
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C			
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C			
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	20 b	99 a	96 a
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	21DAP	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B			
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B			
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C			
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C			
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C			
6	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	35DAP	C	0 c	91 a	96 a
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	35DAP	C			
	AMS	100	SG	4	% w/w	5	lb/a	35DAP	C			
	LSD P=.05									17.2	11.6	3.7
	Standard Deviation									9.1	6.2	2.0
	CV									34.12	6.35	2.06
	Replicate F									3.333	1.050	4.908
	Replicate Prob(F)									0.0886	0.3935	0.0407
	Treatment F									52.435	0.967	0.168
	Treatment Prob(F)									0.0001	0.4755	0.9487

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 24,7 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									XANST	XANST	XANST	XANST
	Crop Code												
	Rating Date									6-21-17	6-29-17	7-6-17	7-13-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									25 DA-A	33 DA-A	40 DA-A	47 DA-A
	Trt-Eval Interval									6 DA-B	14 DA-B	21 DA-B	28 DA-B
1	NONTREATED									0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	98 a	96 a	99 a	99 a
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	99 a	98 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
4	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	99 a	95 a	99 a	99 a
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	21DAP	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	99 a	99 a	99 a	99 a
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	21DAP	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
6	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	35DAP	C	0 b	0 b	96 b	98 a
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	35DAP	C				
	AMS	100	SG	4	% w/w	5	lb/a	35DAP	C				
	LSD P=.05									1.0	3.9	2.2	1.9
	Standard Deviation									0.5	2.1	1.2	1.0
	CV									0.65	2.66	1.2	1.05
	Replicate F									1.000	3.578	1.000	1.000
	Replicate Prob(F)									0.4096	0.0776	0.4096	0.4096
	Treatment F									21979.002	1329.039	3.857	1.000
	Treatment Prob(F)									0.0001	0.0001	0.0494	0.4609

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Could not calculate LSD (% mean diff) for columns 24,7 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									SETFA	SETFA	SETFA	SETFA
	Crop Code												
	Rating Date									6-21-17	6-29-17	7-6-17	7-13-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing										33 DA-A	40 DA-A	47 DA-A
	Trt-Eval Interval									6 DA-B	14 DA-B	21 DA-B	28 DA-B
1	NONTREATED									0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	96 b	98 ab	99 a	99 a
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
4	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	96 b	98 b	99 a	99 a
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	21DAP	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
5	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	21DAP	B	97 ab	98 ab	99 a	99 a
	COBRA	2	EC	0.195	lb ai/a	12.5	fl oz/a	21DAP	B				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	21DAP	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	21DAP	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	35DAP	C				
	SELECT MAX	0.97	EC	0.068	lb ai/a	9	fl oz/a	35DAP	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	35DAP	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	35DAP	C				
6	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	35DAP	C	0 c	0 c	73 b	95 b
	RESOURCE	0.86	EC	0.027	lb ai/a	4	fl oz/a	35DAP	C				
	AMS	100	SG	4	% w/w	5	lb/a	35DAP	C				
	LSD P=.05									1.9	1.3	2.4	0.7
	Standard Deviation									1.0	0.7	1.3	0.4
	CV									1.32	0.88	1.38	0.39
	Replicate F									0.444	0.138	1.000	0.444
	Replicate Prob(F)									0.6561	0.8732	0.4096	0.6561
	Treatment F									5362.001	12004.829	237.160	59.333
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001

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Southern Illinois University

Evaluation of PPO Herbicides in a Liberty Link Soybean System.
Trial ID: 17-19B-N35 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Valent (CobraMD 6402).
2. Ratings:
   CI 7 and 14 DA-B, and 7 and 14 DA-C, rate all plots each time.
   WC 7 and 14 DA-B, and 7 and 14 DA-C, rate all plots each time.
   NOTE; 14 DA-B is also 0 DA-C, so rate before spray application C.
   0 DA-C, record, per plot, if application C was needed (were there weeds?) like it was another rating timing.
   Since rated just prior to application C, we can assume anything other than all 99's needed application C.
3. Yield not requested.
4. Application B is 21 days after planting, spray all B's on the same day.
   Application C is 14 days after application B, whether needed or not.
   Application C, treatment 6, record weed sizes and stages at application separately.
5. Photos requested if see something new, probably prior to application C.
6. Report data as DA-A, include dates.
7. Email Ron Estes when this is planted.

Rainfall following application A was 0.22" over 1 day, begining 7 hours after application.
Rainfall following application B was 0.66" over 1 day, begining 3 days after application.
Rainfall following application C was 0.33" over 2 days, begining 6 days after application.

CI in treatments 4 and 5 on 6/21 was leaf malformation and necrosis.
CI on 7/6 was slight chlorosis on upper leaves.

Pictures available of first rep from 6/21.

Southern Illinois University

Control of PPO-Resistant Waterhemp in Xtend, RR2, and Liberty Link Soybean.
Trial ID: 17-Ewing Location: Ewing, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-11-17
Completion Date: 7-18-17

Trial Location

City: Ewing **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62836

Latitude of LL Corner °: 38.097472 N
Longitude of LL Corner °: 88.844372 W
Altitude of LL Corner, Unit: 480.00 FT

Objectives:
Evaluate control of PPO-resistant waterhemp in Xtend, RR2 and Liberty Link Soybeans.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: See comments **BBCH Scale:** BSOY
Description: See treatment list

Planting Date: 5-16-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 70 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common
Description: glyphosate+PPO resistant waterhemp

Pest 2 Type: W **Code:** IPOHE Ipomoea hederacea (L.) Jacq.
Common Name: morningglory, ivyleaf

Pest 3 Type: W **Code:** PANDI Panicum dichotomiflorum Michx.
Common Name: panicum, fall

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 4 **Study Design:** NONRAN Non-Randomized

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: Ewing_without_soil_test
Texture: SIL silt loam
Soil Name: Hoyleton

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: CLIMATE CORP **Distance, Unit:** 1 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	39.5	70.8	F
2.	4-3-17	0.13	IN	RAIN	rain					
3.	4-6-17	1.03	IN	RAIN	rain					
4.	4-8-17					7	DAY	35.1	84.7	F
5.	4-11-17	0.01	IN	RAIN	rain					
6.	4-15-17					7	DAY	48.2	85.9	F
7.	4-17-17	0.28	IN	RAIN	rain					
8.	4-22-17	1.07	IN	RAIN	rain	7	DAY	44.1	80.1	F
9.	4-29-17					7	DAY	46.9	82	F
10.	5-1-17	7.99	IN	RAIN	rain					
11.	5-4-17	1.4	IN	RAIN	rain					
12.	5-6-17					7	DAY	43.5	86.6	F
13.	5-12-17	0.02	IN	RAIN	rain					
14.	5-13-17					7	DAY	50.1	88.1	F
15.	5-20-17	2.38	IN	RAIN	rain	7	DAY	51.5	81.8	F
16.	5-24-17	0.05	IN	RAIN	rain					
17.	5-27-17	0.17	IN	RAIN	rain	7	DAY	56.8	93.2	F
18.	6-2-17	0.15	IN	RAIN	rain					
19.	6-3-17					7	DAY	52.5	90.8	F
20.	6-4-17	0.34	IN	RAIN	rain					
21.	6-10-17					7	DAY	59.1	93.7	F
22.	6-15-17	0.14	IN	RAIN	rain					
23.	6-17-17					7	DAY	62.4	94.9	F
24.	6-18-17	0.26	IN	RAIN	rain					
25.	6-22-17	0.04	IN	RAIN	rain					
26.	6-24-17					7	DAY	53	89.6	F
27.	7-1-17					7	DAY	61.4	92.3	F
28.	7-4-17	2.83	IN	RAIN	rain					
29.	7-8-17	0.93	IN	RAIN	rain	7	DAY	68.6	93.2	F
30.	7-13-17	0.07	IN	RAIN	rain					
31.	7-15-17					7	DAY	67.3	96.1	F
32.	7-19-17	0.02	IN	RAIN	rain					
33.	7-22-17	0.52	IN	RAIN	rain	7	DAY	72.1	95.8	F
34.	7-29-17					7	DAY	69.2	94.3	F
35.	7-30-17	1.01	IN	RAIN	rain					
36.	8-1-17	0.27	IN	RAIN	rain					
37.	8-3-17	2.28	IN	RAIN	rain					
38.	8-5-17					7	DAY	66.6	93.4	F
39.	8-12-17					7	DAY	67.7	90.2	F
40.	8-16-17	5.81	IN	RAIN	rain					
41.	8-19-17					7	DAY	58.1	92.6	F
42.	8-26-17	0.19	IN	RAIN	rain	7	DAY	69.3	94.3	F
43.	8-31-17	0.15	IN	RAIN	rain	5	DAY	69.3	94.3	F

Application Description

	A	B	C
Application Date:	5-18-17	6-13-17	6-20-17
Appl. Start Time:	5:20	7:20	11:00
Appl. Stop Time:	5:55	7:35	12:30
Interval to Prev. Appl., Unit:		26 DAYS	7 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	3-4"W-1	3-4"W-2
Application Placement:	BROFOL	BROFOL	BROFOL
Applied By:	CC	CC	CC
Air Temperature, Unit:	71 F	80 F	87 F
% Relative Humidity:	78	74	48
Wind Velocity, Unit:	7 MPH	4 MPH	3 MPH
Wind Direction:	SSE	SE	W
Dew Presence (Y/N):	N	Y	N
Soil Temperature, Unit:	69 F	80 F	85 F
Soil Moisture:	NORMAL	BELNOR	NORMAL
% Cloud Cover:	75	0	0
Next Moisture Occurred On:	5-18-17	6-15-17	6-23-17
Time to Next Moisture, Unit:		2 DAY	3 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	V2	V4
Stage Minimum, Percent:		V2	V2
Stage Maximum, Percent:		V3	V5
Height, Unit:		5 IN	8 IN
Height Minimum, Maximum:		3.5 5	3.5 10

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	NA	8	15
Stage Minimum, Percent:		6	COT
Stage Maximum, Percent:		40	42
Height, Unit:		5 IN	4 IN
Height Minimum, Maximum:		2 9	0.5 10.5
Density, Unit:		20 FT2	12 FT2
Pest 2 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W
Stage Majority, Percent:	NA	NA	50
Stage Minimum, Percent:			COT
Stage Maximum, Percent:			50
Height, Unit:			4 IN
Height Minimum, Maximum:			2 6
Density, Unit:			8 FT2
Pest 3 Code, Type, Scale:	PANDI W	PANDI W	PANDI W
Stage Majority, Percent:	NA	2	3
Stage Minimum, Percent:		2	2
Stage Maximum, Percent:		3	8
Height, Unit:		4 IN	6 IN
Height Minimum, Maximum:		4 12	4 14
Density, Unit:		15 FT2	3 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	See	See	See
Nozzle Size:	comment	comment	comment
Boom Length, Unit:	6.67 FT	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

Control of PPO-Resistant Waterhemp in Xtend, RR2, and Liberty Link Soybean.
Trial ID: 17-Ewing Location: Ewing, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code													
	Crop Code									GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									6-2-17	6-16-17			7-25-17
	Rating Type									Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									15 DA-A	29 DA-A	14 DA-B+C	28 DA-B+C	56 DA-A
1	DT SOYBEANS									0	0	0	0	0
	NONTREATED													
2	DT SOYBEANS									0 b	0 c	0 b	0 a	0 a
	TTI NOZZLES							PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	1	lb ae/a	44	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
3	DT SOYBEANS									0 b	0 c	0 b	0 a	0 a
	TTI NOZZLES							PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
4	DT SOYBEANS									3 b	3 bc	0 b	0 a	0 a
	TTI NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
5	DT SOYBEANS									0 b	3 bc	0 b	0 a	0 a
	TTI NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
6	DT SOYBEANS									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 6-2-17 Injury 0-99 15 DA-A	GLXMA 6-16-17 Injury 0-99 29 DA-A	GLXMA Injury 0-99 14 DA-B+C	GLXMA Injury 0-99 28 DA-B+C	GLXMA 7-25-17 Injury 0-99 56 DA-A
	Pest Code													
	Crop Code													
	Rating Date													
	Rating Type													
	Rating Unit													
	Rating Timing													
	Trt-Eval Interval													
7	DT SOYBEANS									11 a	9 a	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
8	DT SOYBEANS									3 b	5 ab	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
9	DT SOYBEANS									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
10	DT SOYBEANS									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
11	DT SOYBEANS									0 b	0 c	0 b	0 a	0 a
	NO PRE HERBICIDE													
	TTI NOZZLES							3-4"W-1	B					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-1	B					
12	RR2 SOYBEAN									0	0	0	0	0
	NONTREATED													
13	RR2 SOYBEAN									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval									GLXMA 6-2-17 Injury 0-99 15 DA-A	GLXMA 6-16-17 Injury 0-99 29 DA-A	GLXMA Injury 0-99 14 DA-B+C	GLXMA Injury 0-99 28 DA-B+C	GLXMA 7-25-17 Injury 0-99 56 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
14	RR2 SOYBEAN									0 b	0 c	3 a	1 a	0 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
15	RR2 SOYBEAN									0 b	0 c	3 a	1 a	0 a
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
16	RR2 SOYBEAN									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
17	RR2 SOYBEAN									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
18	RR2 SOYBEAN									0 b	0 c	0 b	0 a	0 a
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
19	LL SOYBEAN									0	0	0	0	0
	NONTREATED													
20	LL SOYBEAN									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code													
	Crop Code									GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									6-2-17	6-16-17			7-25-17
	Rating Type									Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									15 DA-A	29 DA-A	14 DA-B+C	28 DA-B+C	56 DA-A
21	LL SOYBEAN									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
22	LL SOYBEAN									0 b	0 c	1 ab	0 a	0 a
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
23	LL SOYBEAN									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
24	LL SOYBEAN									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
25	LL SOYBEAN									0 b	0 c	0 b	0 a	0 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
26	LL SOYBEAN									0 b	0 c	0 b	0 a	0 a
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
	LSD P=.05									4.3	4.3	1.4	1.0	.
	Standard Deviation									3.0	3.1	1.0	0.7	0.0
	CV									392.24	387.33	367.33	678.23	0.0
	Treatment F									2.659	1.825	2.256	0.955	0.000
	Treatment Prob(F)									0.0011	0.0308	0.0055	0.5291	1.0000

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code											AMATA	AMATA	AMATA	AMATA
Crop Code										GLXMA				
Rating Date											6-2-17	6-16-17	6-20-17	
Rating Type										Injury	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing														
Trt-Eval Interval										56 DA-B+C	15 DA-A	29 DA-A	0 DA-C	14 DA-B+C
1	DT SOYBEANS													
	NONTREATED									0	0	0	0	0
2	DT SOYBEANS													
	TTI NOZZLES							PRE	A	0 a	89 ab	53 fg	53 de	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	1	lb ae/a	44	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
3	DT SOYBEANS													
	TTI NOZZLES							PRE	A	0 a	78 bc	38 g	38 e	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
4	DT SOYBEANS													
	TTI NOZZLES							PRE	A	0 a	97 a	90 ab	90 a	98 a
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
5	DT SOYBEANS													
	TTI NOZZLES							PRE	A	0 a	97 a	94 ab	94 a	98 a
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
6	DT SOYBEANS													
	XR NOZZLES							PRE	A	0 a	84 abc	81 a-e	81 abc	96 a
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA Injury 0-99 56 DA-B+C	AMATA 6-2-17 Control 0-99 15 DA-A	AMATA 6-16-17 Control 0-99 29 DA-A	AMATA 6-20-17 Control 0-99 0 DA-C	AMATA Control 0-99 14 DA-B+C
7	DT SOYBEANS									0 a	88 abc	79 a-e	79 abc	97 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
8	DT SOYBEANS									0 a	93 a	79 a-e	79 abc	97 a
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
9	DT SOYBEANS									0 a	95 a	90 ab	90 a	99 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
10	DT SOYBEANS									0 a	96 a	91 ab	91 a	99 a
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
11	DT SOYBEANS									0 a	0 d	0 h		95 a
	NO PRE HERBICIDE													
	TTI NOZZLES							3-4"W-1	B					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-1	B					
12	RR2 SOYBEAN									0	0	0	0	0
	NONTREATED													
13	RR2 SOYBEAN									0 a	75 c	64 def	75 a-d	74 b
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA Injury 0-99 56 DA-B+C	AMATA 6-2-17 Control 0-99 15 DA-A	AMATA 6-16-17 Control 0-99 29 DA-A	AMATA 6-20-17 Control 0-99 0 DA-C	AMATA Control 0-99 14 DA-B+C
14	RR2 SOYBEAN									0 a	74 c	57 efg	62 bcd	55 c
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
15	RR2 SOYBEAN									0 a	88 abc	65 c-f	60 cde	76 b
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
16	RR2 SOYBEAN									0 a	93 a	72 b-f	89 a	74 b
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
17	RR2 SOYBEAN									0 a	96 a	87 a-d	85 ab	88 ab
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
18	RR2 SOYBEAN									0 a	0 d	0 h		43 c
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
19	LL SOYBEAN									0	0	0	0	0
	NONTREATED													
20	LL SOYBEAN									0 a	91 ab	88 abc	84 ab	99 a
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code											AMATA	AMATA	AMATA	AMATA
Crop Code										GLXMA				
Rating Date											6-2-17	6-16-17	6-20-17	
Rating Type										Injury	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing														
Trt-Eval Interval										56 DA-B+C	15 DA-A	29 DA-A	0 DA-C	14 DA-B+C
21	LL SOYBEAN									0 a	98 a	93 ab	93 a	99 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
22	LL SOYBEAN									0 a	93 a	79 a-e	78 abc	99 a
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
23	LL SOYBEAN									0 a	95 a	92 ab	95 a	99 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
24	LL SOYBEAN									0 a	97 a	94 ab	92 a	99 a
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
25	LL SOYBEAN									0 a	96 a	96 a	95 a	99 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
26	LL SOYBEAN									0 a	0 d	0 h		96 a
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
LSD P=.05										.	13.9	23.7	23.1	15.1
Standard Deviation										0.0	9.9	16.8	16.4	10.7
CV										0.0	12.55	24.51	20.44	11.89
Treatment F										0.000	41.774	13.630	3.705	8.425
Treatment Prob(F)										1.0000	0.0001	0.0001	0.0001	0.0001

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMATA	AMATA	IPOSS	IPOSS	IPOSS
	Crop Code													
	Rating Date											6-2-17	6-16-17	6-20-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									28 DA-B+C	56 DA-B+C	15 DA-A	29 DA-A	0 DA-C
1	DT SOYBEANS									0	0	0	0	0
	NONTREATED													
2	DT SOYBEANS									98 a	98 a	69 cd	53 fg	53 ef
	TTI NOZZLES							PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	1	lb ae/a	44	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
3	DT SOYBEANS									98 a	99 a	60 d	40 g	40 f
	TTI NOZZLES							PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
4	DT SOYBEANS									98 a	98 a	94 a	88 abc	88 abc
	TTI NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
5	DT SOYBEANS									99 a	99 a	87 ab	90 ab	90 abc
	TTI NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
6	DT SOYBEANS									98 a	99 a	88 ab	88 abc	88 abc
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMATA	AMATA	IPOSS	IPOSS	IPOSS
	Pest Code									AMATA	AMATA	IPOSS	IPOSS	IPOSS
	Crop Code													
	Rating Date											6-2-17	6-16-17	6-20-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									28 DA-B+C	56 DA-B+C	15 DA-A	29 DA-A	0 DA-C
7	DT SOYBEANS									97 a	99 a	95 a	93 a	93 ab
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
8	DT SOYBEANS									98 a	98 a	93 a	93 a	93 ab
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
9	DT SOYBEANS									99 a	99 a	89 a	84 abc	84 abc
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
10	DT SOYBEANS									99 a	99 a	82 abc	75 a-d	75 bcd
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
11	DT SOYBEANS									94 a	97 a	0 e	0 h	
	NO PRE HERBICIDE													
	TTI NOZZLES							3-4"W-1	B					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-1	B					
12	RR2 SOYBEAN									0	0	0	0	0
	NONTREATED													
13	RR2 SOYBEAN									73 b	73 bc	88 ab	83 abc	90 abc
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMATA	AMATA	IPOSS	IPOSS	IPOSS
	Pest Code									AMATA	AMATA	IPOSS	IPOSS	IPOSS
	Crop Code													
	Rating Date											6-2-17	6-16-17	6-20-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									28 DA-B+C	56 DA-B+C	15 DA-A	29 DA-A	0 DA-C
14	RR2 SOYBEAN									51 c	51 d	85 ab	90 ab	90 abc
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
15	RR2 SOYBEAN									73 b	70 c	91 a	84 abc	86 abc
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
16	RR2 SOYBEAN									71 b	70 c	88 ab	69 c-f	71 cde
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
17	RR2 SOYBEAN									88 a	88 ab	85 ab	71 b-f	76 bcd
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
18	RR2 SOYBEAN									33 d	33 e	0 e	0 h	
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
19	LL SOYBEAN									0	0	0	0	0
	NONTREATED													
20	LL SOYBEAN									99 a	99 a	91 a	89 ab	86 abc
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMATA	AMATA	IPOSS	IPOSS	IPOSS
	Pest Code									AMATA	AMATA	IPOSS	IPOSS	IPOSS
	Crop Code													
	Rating Date											6-2-17	6-16-17	6-20-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									28 DA-B+C	56 DA-B+C	15 DA-A	29 DA-A	0 DA-C
21	LL SOYBEAN									99 a	99 a	94 a	93 a	97 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
22	LL SOYBEAN									99 a	99 a	92 a	90 ab	90 abc
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
23	LL SOYBEAN									99 a	99 a	84 ab	63 def	58 def
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
24	LL SOYBEAN									99 a	99 a	85 ab	74 a-e	74 bcd
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
25	LL SOYBEAN									99 a	99 a	75 bc	55 efg	58 def
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
26	LL SOYBEAN									89 a	92 a	0 e	0 h	
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
	LSD P=.05									15.4	15.5	13.9	19.6	20.0
	Standard Deviation									10.9	11.0	9.9	13.9	14.1
	CV									12.25	12.29	13.23	20.52	17.91
	Treatment F									10.499	10.744	38.577	19.090	4.971
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001	0.0001

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	IPOSS	IPOSS	IPOSS	PANDI	PANDI
	Pest Code									IPOSS	IPOSS	IPOSS	PANDI	PANDI
	Crop Code													
	Rating Date												6-2-17	6-16-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									14 DA-B+C	28 DA-B+C	56 DA-B+C	15 DA-A	29 DA-A
1	DT SOYBEANS									0	0	0	0	0
	NONTREATED													
2	DT SOYBEANS									99 a	98 ab	98 a	71 bc	53 de
	TTI NOZZLES							PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	1	lb ae/a	44	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
3	DT SOYBEANS									97 abc	96 abc	97 a	70 c	38 e
	TTI NOZZLES							PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
4	DT SOYBEANS									98 abc	96 abc	97 a	90 a	86 ab
	TTI NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
5	DT SOYBEANS									98 ab	97 abc	97 a	86 ab	88 ab
	TTI NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
6	DT SOYBEANS									97 abc	95 a-d	96 a	94 a	90 ab
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	IPOSS	IPOSS	IPOSS	PANDI	PANDI
	Pest Code									IPOSS	IPOSS	IPOSS	PANDI	PANDI
	Crop Code													
	Rating Date												6-2-17	6-16-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									14 DA-B+C	28 DA-B+C	56 DA-B+C	15 DA-A	29 DA-A
7	DT SOYBEANS									98 ab	96 abc	96 a	93 a	93 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
8	DT SOYBEANS									99 a	99 a	99 a	91 a	89 ab
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
9	DT SOYBEANS									99 a	98 ab	98 a	87 a	79 abc
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
10	DT SOYBEANS									98 ab	96 abc	96 a	92 a	85 ab
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
11	DT SOYBEANS									97 abc	96 abc	96 ab	0 d	0 f
	NO PRE HERBICIDE													
	TTI NOZZLES							3-4"W-1	B					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-1	B					
12	RR2 SOYBEAN									0	0	0	0	0
	NONTREATED													
13	RR2 SOYBEAN									96 abc	95 a-d	96 a	88 a	79 abc
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	IPOSS	IPOSS	IPOSS	PANDI	PANDI
	Pest Code									IPOSS	IPOSS	IPOSS	PANDI	PANDI
	Crop Code													
	Rating Date												6-2-17	6-16-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									14 DA-B+C	28 DA-B+C	56 DA-B+C	15 DA-A	29 DA-A
14	RR2 SOYBEAN									98 ab	96 abc	96 a	85 abc	81 ab
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
15	RR2 SOYBEAN									97 abc	96 abc	96 a	80 abc	73 bc
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
16	RR2 SOYBEAN									95 bcd	93 cde	94 abc	87 a	74 bc
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
17	RR2 SOYBEAN									98 ab	94 a-e	94 abc	90 a	88 ab
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
18	RR2 SOYBEAN									91 d	90 e	90 c	0 d	0 f
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
19	LL SOYBEAN									0	0	0	0	0
	NONTREATED													
20	LL SOYBEAN									96 abc	93 cde	95 abc	90 a	86 ab
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	IPOSS	IPOSS	IPOSS	PANDI	PANDI
	Pest Code									IPOSS	IPOSS	IPOSS	PANDI	PANDI
	Crop Code													
	Rating Date												6-2-17	6-16-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									14 DA-B+C	28 DA-B+C	56 DA-B+C	15 DA-A	29 DA-A
21	LL SOYBEAN									99 a	96 abc	95 abc	93 a	93 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
22	LL SOYBEAN									95 bcd	94 b-e	94 abc	86 ab	63 cd
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
23	LL SOYBEAN									97 abc	95 a-d	95 abc	81 abc	78 abc
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
24	LL SOYBEAN									97 abc	91 de	90 c	89 a	85 ab
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
25	LL SOYBEAN									96 abc	90 e	91 bc	84 abc	73 bc
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
26	LL SOYBEAN									94 cd	90 e	90 c	0 d	0 f
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
	LSD P=.05									3.7	4.5	5.0	15.4	18.6
	Standard Deviation									2.6	3.2	3.6	10.9	13.2
	CV									2.69	3.39	3.76	14.53	19.32
	Treatment F									2.001	2.578	2.066	30.975	20.693
	Treatment Prob(F)									0.0154	0.0015	0.0119	0.0001	0.0001

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code										PANDI	PANDI	PANDI	PANDI	
Crop Code														GLXMA
Rating Date										6-20-17				11-10-17
Rating Type										Control	Control	Control	Control	Moisture
Rating Unit										0-99	0-99	0-99	0-99	Percent
Rating Timing														
Trt-Eval Interval										0 DA-C	14 DA-B+C	28 DA-B+C	56 DA-B+C	Harvest
1	DT SOYBEANS									0	0	0	0	11.9 a
	NONTREATED													
2	DT SOYBEANS									53 cd	99 a	99 a	99 a	11.8 a
	TTI NOZZLES							PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	1	lb ae/a	44	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
3	DT SOYBEANS									38 d	99 a	98 a	98 a	11.3 a
	TTI NOZZLES							PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
4	DT SOYBEANS									86 a	99 a	98 a	98 a	11.6 a
	TTI NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
5	DT SOYBEANS									88 a	99 a	99 a	99 a	11.7 a
	TTI NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
6	DT SOYBEANS									90 a	99 a	99 a	99 a	11.7 a
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	PANDI 6-20-17 Control 0-99 0 DA-C	PANDI Control 0-99 14 DA-B+C	PANDI Control 0-99 28 DA-B+C	PANDI Control 0-99 56 DA-B+C	GLXMA 11-10-17 Moisture Percent Harvest
7	DT SOYBEANS									93 a	99 a	99 a	99 a	11.6 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
8	DT SOYBEANS									89 a	99 a	99 a	99 a	11.6 a
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
9	DT SOYBEANS									79 ab	99 a	99 a	99 a	11.8 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
10	DT SOYBEANS									85 a	98 ab	98 a	98 a	11.2 a
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	TTI NOZZLES							3-4"W-2	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C					
11	DT SOYBEANS										99 a	98 a	99 a	11.7 a
	NO PRE HERBICIDE													
	TTI NOZZLES							3-4"W-1	B					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-1	B					
12	RR2 SOYBEAN									0	0	0	0	11.8 a
	NONTREATED													
13	RR2 SOYBEAN									88 a	99 a	99 a	99 a	11.7 a
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	PANDI	PANDI	PANDI	PANDI	GLXMA
	Crop Code													GLXMA
	Rating Date									6-20-17				11-10-17
	Rating Type									Control	Control	Control	Control	Moisture
	Rating Unit									0-99	0-99	0-99	0-99	Percent
	Rating Timing													
	Trt-Eval Interval									0 DA-C	14 DA-B+C	28 DA-B+C	56 DA-B+C	Harvest
14	RR2 SOYBEAN									81 a	99 a	99 a	99 a	11.7 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
15	RR2 SOYBEAN									80 ab	99 a	99 a	99 a	11.7 a
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
16	RR2 SOYBEAN									86 a	99 a	99 a	99 a	12.0 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
17	RR2 SOYBEAN									88 a	99 a	99 a	99 a	11.6 a
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
18	RR2 SOYBEAN										99 a	98 a	98 a	11.8 a
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
19	LL SOYBEAN									0	0	0	0	12.2 a
	NONTREATED													
20	LL SOYBEAN									83 a	98 ab	98 a	98 a	12.1 a
	XR NOZZLES							PRE	A					
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A					
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	PANDI	PANDI	PANDI	PANDI	GLXMA
	Crop Code													GLXMA
	Rating Date									6-20-17				11-10-17
	Rating Type									Control	Control	Control	Control	Moisture
	Rating Unit									0-99	0-99	0-99	0-99	Percent
	Rating Timing													
	Trt-Eval Interval									0 DA-C	14 DA-B+C	28 DA-B+C	56 DA-B+C	Harvest
21	LL SOYBEAN									94 a	99 a	99 a	97 a	11.9 a
	XR NOZZLES							PRE	A					
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
22	LL SOYBEAN									63 bc	96 b	98 a	96 a	12.0 a
	XR NOZZLES							PRE	A					
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
23	LL SOYBEAN									83 a	99 a	99 a	98 a	11.9 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
24	LL SOYBEAN									86 a	98 ab	98 a	98 a	11.8 a
	XR NOZZLES							PRE	A					
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
25	LL SOYBEAN									78 ab	98 ab	98 a	98 a	11.9 a
	XR NOZZLES							PRE	A					
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A					
	XR NOZZLES							3-4"W-2	C					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C					
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W-2	C					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C					
26	LL SOYBEAN										85 c	80 b	83 b	11.9 a
	NO PRE HERBICIDE													
	XR NOZZLES							3-4"W-1	B					
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-1	B					
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B					
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B					
	LSD P=.05									18.3	2.0	2.2	3.6	0.50
	Standard Deviation									13.0	1.4	1.5	2.5	0.35
	CV									16.14	1.45	1.58	2.59	3.01
	Treatment F									4.663	16.993	25.576	7.264	1.461
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001	0.1067

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 11-10-17 Weight lb/plot Harvest	GLXMA 11-10-17 Yield bu/A Harvest
	Pest Code										
	Crop Code									GLXMA	GLXMA
	Rating Date									11-10-17	11-10-17
	Rating Type									Weight	Yield
	Rating Unit									lb/plot	bu/A
	Rating Timing										
	Trt-Eval Interval									Harvest	Harvest
1	DT SOYBEANS									8.0 de	42.8 ef
	NONTREATED										
2	DT SOYBEANS									12.9 a	69.1 a
	TTI NOZZLES							PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	XTENDIMAX	2.9	SL	1	lb ae/a	44	fl oz/a	PRE	A		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A		
	TTI NOZZLES							3-4"W-2	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C		
3	DT SOYBEANS									11.6 abc	62.6 a-d
	TTI NOZZLES							PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A		
	TTI NOZZLES							3-4"W-2	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C		
4	DT SOYBEANS									12.3 ab	65.8 ab
	TTI NOZZLES							PRE	A		
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A		
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A		
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A		
	TTI NOZZLES							3-4"W-2	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C		
5	DT SOYBEANS									11.5 abc	61.7 a-d
	TTI NOZZLES							PRE	A		
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A		
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A		
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A		
	TTI NOZZLES							3-4"W-2	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C		
6	DT SOYBEANS									11.9 abc	63.9 a-d
	XR NOZZLES							PRE	A		
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A		
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A		
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	TTI NOZZLES							3-4"W-2	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C		

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 11-10-17 Weight lb/plot Harvest	GLXMA 11-10-17 Yield bu/A Harvest
7	DT SOYBEANS									11.8 abc	63.2 a-d
	XR NOZZLES							PRE	A		
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	TTI NOZZLES							3-4"W-2	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C		
8	DT SOYBEANS									10.9 abc	58.6 a-d
	XR NOZZLES							PRE	A		
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	TTI NOZZLES							3-4"W-2	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C		
9	DT SOYBEANS									12.4 ab	66.5 ab
	XR NOZZLES							PRE	A		
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	TTI NOZZLES							3-4"W-2	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C		
10	DT SOYBEANS									11.7 abc	63.3 a-d
	XR NOZZLES							PRE	A		
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	TTI NOZZLES							3-4"W-2	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-2	C		
11	DT SOYBEANS									11.6 abc	62.4 a-d
	NO PRE HERBICIDE										
	TTI NOZZLES							3-4"W-1	B		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3-4"W-1	B		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3-4"W-1	B		
12	RR2 SOYBEAN									6.5 e	35.0 f
	NONTREATED										
13	RR2 SOYBEAN									11.7 abc	62.8 a-d
	XR NOZZLES							PRE	A		
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A		
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A		
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		

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Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 11-10-17 Weight lb/plot Harvest	GLXMA 11-10-17 Yield bu/A Harvest
14	RR2 SOYBEAN									11.4 abc	60.9 a-d
	XR NOZZLES							PRE	A		
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		
15	RR2 SOYBEAN									11.4 abc	60.9 a-d
	XR NOZZLES							PRE	A		
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		
16	RR2 SOYBEAN									12.2 ab	64.9 ab
	XR NOZZLES							PRE	A		
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		
17	RR2 SOYBEAN									11.9 abc	64.1 abc
	XR NOZZLES							PRE	A		
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		
18	RR2 SOYBEAN									11.2 abc	60.0 a-d
	NO PRE HERBICIDE										
	XR NOZZLES							3-4"W-1	B		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3-4"W-1	B		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B		
19	LL SOYBEAN									6.1 e	32.7 f
	NONTREATED										
20	LL SOYBEAN									11.1 abc	59.4 a-d
	XR NOZZLES							PRE	A		
	ROWEL FX	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A		
	ROWEL	51	WG	0.0656	lb ai/a			PRE	A		
	CLASSIC	25	WG	0.02253	lb ai/a			PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 11-10-17 Weight lb/plot Harvest	GLXMA 11-10-17 Yield bu/A Harvest
	Pest Code										
	Crop Code									GLXMA	GLXMA
	Rating Date									11-10-17	11-10-17
	Rating Type									Weight	Yield
	Rating Unit									lb/plot	bu/A
	Rating Timing										
	Trt-Eval Interval									Harvest	Harvest
21	LL SOYBEAN									9.7 cd	51.8 cde
	XR NOZZLES							PRE	A		
	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		
22	LL SOYBEAN									9.6 cd	51.3 de
	XR NOZZLES							PRE	A		
	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		
23	LL SOYBEAN									11.0 abc	59.0 a-d
	XR NOZZLES							PRE	A		
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		
24	LL SOYBEAN									10.4 bc	55.6 bcd
	XR NOZZLES							PRE	A		
	PREFIX	5.29	EC	1.65	lb ai/a	2.5	pt/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		
25	LL SOYBEAN									10.1 bcd	54.2 b-e
	XR NOZZLES							PRE	A		
	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	PRE	A		
	XR NOZZLES							3-4"W-2	C		
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-2	C		
	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	3-4"W-2	C		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-2	C		
26	LL SOYBEAN									10.8 abc	57.8 a-d
	NO PRE HERBICIDE										
	XR NOZZLES							3-4"W-1	B		
	LIBERTY 280	2.34	EC	0.585	lb ai/a	32	fl oz/a	3-4"W-1	B		
	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	3-4"W-1	B		
	AMS - LIQUID	100	SL	5	% v/v	5	% v/v	3-4"W-1	B		
	LSD P=.05									2.38	12.72
	Standard Deviation									1.69	9.03
	CV									15.59	15.54
	Treatment F									3.944	3.998
	Treatment Prob(F)									0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=25,26,27
Could not calculate LSD (% mean diff) for columns 20,21 because error mean square = 0.

Southern Illinois University

Control of PPO-Resistant Waterhemp in Xtend, RR2, and Liberty Link Soybean.

Trial ID: 17-Ewing Location: Ewing, IL Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: SIU/RFK (Ewing demo).
2. Ratings:
   CI 14, 28, and 56 DAA, DA-B, and DA-C.
   WC 14 and 28 DA-A
   WC 14, 28, and 56 DA-B
   WC 0, 14, 28, and 56 DA-C
3. Yield not requested.
4. Photos not requested but as appropriate.
5. Soybean varieties are AG39X7 for Xtend and RR2 systems and P37709L for LL system.
6. Nozzles are per treatment and per application, recommend label bottles with nozzle to be used.
7. Rate before spray application C.

RR2X variety was Asgrow 39X7; LL variety was Pioneer 37T09L.

Blanket application of Gramoxone 2 SL (4 pt/A) + NIS (0.25 % v/v) on 5/11 for marestail control.

Rating dates for ratings following the POST applications are listed below.
14 DA-B rated 6/27
14 DA-C rated 7/4
28 DA-B rated 7/11
28 DA-C rated 7/18
56 DA-B rated 8/8
56 DA-C rated 8/15

Harvested plot area = 27.5' x 5'.

Southern Illinois University

Flumioxazin in a Liberty Link Soybean System.
Trial ID: 17-19B-M50 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-25-17
Completion Date: 7-21-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.519143 N
Longitude of LL Corner °: 89.844313 W
Altitude of LL Corner, Unit: 435.00 FT
Angle y-axis to North °: 270.00

Objectives:
Compare Fierce (3 and 3.75 oz/A) and Fierce MTZ with Authority Elite (25 floz/A), Zidua Pro (4.5 floz/A) and Boundary (2 pt/A) for preemergence weed control in a Liberty Link system.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: Pioneer 37T09L **BBCH Scale:** BSOY
Description: LL
Planting Date: 5-25-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 66.4 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** ABUTH Abutilon theophrasti Medik.
Common Name: velvetleaf

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 3 Type: W **Code:** IPOSS
Common Name: morningglory, species

Pest 4 Type: W **Code:** XANST Xanthium strumarium L.
Common Name: cocklebur, common

Pest 5 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 100 LB/A, K2O 200 LB/A

Soil Description

Description Name: 19B_2013
% OM: 3.5 **Texture:** SIL silt loam
pH: 6.6 **Soil Name:** Bethalto
CEC: 12

Additional Measured Elements

Element	Quantity	Unit
P1	54	lb/A
K	335	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	39	70	F
2.	4-2-17	1.85	IN	RAIN	rain	5	DAY			
3.	4-8-17					7	DAY	39	81	F
4.	4-10-17	0.12	IN	RAIN	rain	1	DAY			
5.	4-14-17	0.21	IN	RAIN	rain	1	DAY			
6.	4-15-17					7	DAY	49	86	F
7.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
8.	4-22-17					7	DAY	41	80	F
9.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
10.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
11.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
12.	4-29-17					7	DAY	45	77	F
13.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
14.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
15.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
16.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
17.	5-6-17					7	DAY	43	87	F
18.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
19.	5-13-17					7	DAY	51	87	F
20.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
21.	5-20-17					7	DAY	50	80	F
22.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
23.	5-27-17					7	DAY	55	87	F
24.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
25.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
26.	6-3-17					7	DAY	54	89	F
27.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
28.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
29.	6-17-17					7	DAY	62	92	F
30.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
31.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
32.	6-24-17					7	DAY	53	91	F
33.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
34.	7-1-17					7	DAY	60	93	F
35.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
36.	7-8-17					7	DAY	67	98	F
37.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
38.	7-15-17					7	DAY	60	91	F
39.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
40.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
41.	7-22-17					7	DAY	69	99	F
42.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
43.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
44.	7-29-17					7	DAY	61	83	F

Application Description

	A	B	C
Application Date:	5-27-17	6-9-17	6-22-17
Appl. Start Time:	9:35	9:10	8:40
Appl. Stop Time:	9:51	9:45	8:50
Interval to Prev. Appl., Unit:		13 DAYS	13 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	2"W	14DA-B
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RLS	CC	RLS
Air Temperature, Unit:	77 F	78 F	77 F
% Relative Humidity:	81	43	82
Wind Velocity, Unit:	3 MPH	10 MPH	9 MPH
Wind Direction:	NNE	SW	SSE
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	69 F	70 F	75 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	30	0	70
Next Moisture Occurred On:	5-27-17	6-14-17	7-5-17
Time to Next Moisture, Unit:	7 HR	5 DAY	13 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	VC	V3
Stage Minimum, Percent:		VC	V2
Stage Maximum, Percent:		V1	V3
Height, Unit:		4 IN	5 IN
Height Minimum, Maximum:		3 4	4 6

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	ABUTH W	ABUTH W	ABUTH W
Stage Majority, Percent:	NA	4	NA
Stage Minimum, Percent:		COT	
Stage Maximum, Percent:		5	
Height, Unit:		0.75 IN	
Height Minimum, Maximum:		0.4 1	
Density, Unit:		1 FT2	
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	NA	6	4
Stage Minimum, Percent:		COT	2
Stage Maximum, Percent:		6	4
Height, Unit:		2 IN	2 IN
Height Minimum, Maximum:		0.5 3	1 3
Density, Unit:		0.2 FT2	0.1 FT2
Pest 3 Code, Type, Scale:	IPOSS W	IPOSS W	IPOSS W
Stage Majority, Percent:	NA	COT	COT
Stage Minimum, Percent:		COT	COT
Stage Maximum, Percent:		4	4
Height, Unit:		0.3 IN	0.5 IN
Height Minimum, Maximum:		0.3 1	0.5 2
Density, Unit:		0.1 FT2	1 FT2
Pest 4 Code, Type, Scale:	XANST W	XANST W	XANST W
Stage Majority, Percent:	NA	4	NA
Stage Minimum, Percent:		COT	
Stage Maximum, Percent:		6	
Height, Unit:		1 IN	
Height Minimum, Maximum:		0.2 1.5	
Density, Unit:		0.5 FT2	
Pest 5 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:	NA	3	3
Stage Minimum, Percent:		2	2
Stage Maximum, Percent:		4	4
Height, Unit:		1 IN	1 IN
Height Minimum, Maximum:		0.2 1	0.3 3.5
Density, Unit:		6 FT2	0.01 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

Flumioxazin in a Liberty Link Soybean System.
Trial ID: 17-19B-M50 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code														
Crop Code										GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Rating Date										6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
Rating Type										Injury	Injury	Injury	Injury	Injury
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing										9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
Trt-Eval Interval										9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
1	NONTREATED									0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B	0 a	0 c	3 a	0 a	0 a
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	0 a	1 bc	4 a	0 a	0 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
4	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	0 a	3 a	5 a	0 a	0 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
5	AUTHORITY ELITE	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	0 a	2 abc	3 a	0 a	0 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
6	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	0 a	0 c	3 a	0 a	0 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
7	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	PRE	A	0 a	2 abc	2 a	0 a	0 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
8	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	0 a	3 a	4 a	0 a	0 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=7,9,6
Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code													
	Crop Code									GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
9	V-10425	1.52	CS	0.143	lb ai/a	12	fl oz/a	PRE	A	0 a	1 abc	4 a	0 a	0 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
10	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	PRE	A	0 a	2 ab	4 a	0 a	0 a
	V-10463	0.45	ME	0.081	lb ai/a	23	fl oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
	LSD P=.05									.	2.1	2.1	.	.
	Standard Deviation									0.0	1.2	1.2	0.0	0.0
	CV									0.0	71.06	33.25	0.0	0.0
	Replicate F									0.000	0.317	1.869	0.000	0.000
	Replicate Prob(F)									1.0000	0.7329	0.1864	1.0000	1.0000
	Treatment F									0.000	3.267	1.570	0.000	0.000
	Treatment Prob(F)									1.0000	0.0209	0.2104	1.0000	1.0000

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Missing data estimates are included in columns:Average=7,9,6
Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
	Crop Code													
	Rating Date									6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
1	NONTREATED									0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B		99 a	99 a	99 a	99 a
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	58 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
4	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	52 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
5	AUTHORITY ELITE	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	90 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
6	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	82 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
7	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	PRE	A	83 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
8	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	85 a	99 a	99 a	98 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=7,9,6
Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									ABUTH	ABUTH	ABUTH	ABUTH	ABUTH
	Crop Code													
	Rating Date									6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
9	V-10425	1.52	CS	0.143	lb ai/a	12	fl oz/a	PRE	A	96 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
10	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	PRE	A	95 a	99 a	99 a	99 a	99 a
	V-10463	0.45	ME	0.081	lb ai/a	23	fl oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
	LSD P=.05									51.7	0.3	.	0.7	0.3
	Standard Deviation									28.4	0.2	0.0	0.4	0.2
	CV									35.5	0.19	0.0	0.4	0.19
	Replicate F									2.264	1.000	0.000	2.909	1.000
	Replicate Prob(F)									0.1545	0.3897	1.0000	0.0836	0.3897
	Treatment F									1.002	1.000	0.000	1.091	1.000
	Treatment Prob(F)									0.4824	0.4726	1.0000	0.4174	0.4726

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Missing data estimates are included in columns:Average=7,9,6
Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code													
	Rating Date									6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
1	NONTREATED									0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B		95 a	98 a	98 a	99 a
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	50 a	98 a	98 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
4	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	0 b	94 a	97 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
5	AUTHORITY ELITE	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	0 b	96 a	98 a	98 a	98 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
6	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	73 a	95 a	97 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
7	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	PRE	A	30 ab	95 a	98 a	98 a	98 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
8	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	42 ab	97 a	99 a	98 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=7,9,6
Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code													
	Rating Date									6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
9	V-10425	1.52	CS	0.143	lb ai/a	12	fl oz/a	PRE	A	70 a	97 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
10	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	PRE	A	48 a	97 a	98 a	99 a	99 a
	V-10463	0.45	ME	0.081	lb ai/a	23	fl oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
	LSD P=.05									45.2	2.8	2.1	1.1	1.0
	Standard Deviation									24.8	1.6	1.2	0.6	0.6
	CV									63.4	1.69	1.25	0.65	0.61
	Replicate F									2.622	16.295	0.972	2.517	1.231
	Replicate Prob(F)									0.1215	0.0001	0.3996	0.1121	0.3183
	Treatment F									3.807	1.891	0.673	1.843	0.692
	Treatment Prob(F)									0.0281	0.1324	0.7085	0.1419	0.6935

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Missing data estimates are included in columns:Average=7,9,6
Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									IPOSS	IPOSS	IPOSS	IPOSS
	Crop Code												
	Rating Date									6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									10 DA-B	17 DA-B	15 DA-C	29 DA-C
1	NONTREATED									0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B	17 a	99 ab	66 a	97 a
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C				
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C				
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	42 a	99 a	98 a	98 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C				
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C				
4	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	8 a	98 b	99 a	97 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C				
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C				
5	AUTHORITY ELITE	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	67 a	99 a	99 a	98 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C				
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C				
6	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	17 a	99 a	99 a	96 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C				
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C				
7	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	PRE	A	17 a	98 b	98 a	97 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C				
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C				
8	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	50 a	99 a	98 a	96 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C				
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=7,9,6
Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code									IPOSS	IPOSS	IPOSS	IPOSS
	Crop Code												
	Rating Date									6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									10 DA-B	17 DA-B	15 DA-C	29 DA-C
9	V-10425	1.52	CS	0.143	lb ai/a	12	fl oz/a	PRE	A	58 a	99 a	99 a	97 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C				
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C				
10	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	PRE	A	58 a	99 a	99 a	98 a
	V-10463	0.45	ME	0.081	lb ai/a	23	fl oz/a	PRE	A				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B				
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B				
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C				
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C				
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C				
	LSD P=.05									44.9	0.5	32.8	1.8
	Standard Deviation									26.0	0.3	18.9	1.1
	CV									70.11	0.31	19.97	1.1
	Replicate F									0.034	2.800	1.023	1.404
	Replicate Prob(F)									0.9663	0.0906	0.3820	0.2743
	Treatment F									2.249	2.800	1.001	2.065
	Treatment Prob(F)									0.0798	0.0379	0.4722	0.1033

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Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									XANST	XANST	XANST	XANST	XANST
	Crop Code													
	Rating Date									6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
1	NONTREATED									0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B		97 a	99 a	99 a	99 a
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	50 a	95 a	99 a	98 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
4	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	0 b	94 a	99 a	97 a	98 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
5	AUTHORITY ELITE	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	85 a	95 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
6	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	77 a	97 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
7	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	PRE	A	60 a	96 a	99 a	98 a	98 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
8	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	60 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					

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Missing data estimates are included in columns:Average=7,9,6
Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									XANST	XANST	XANST	XANST	XANST
	Crop Code													
	Rating Date									6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
9	V-10425	1.52	CS	0.143	lb ai/a	12	fl oz/a	PRE	A	95 a	97 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
10	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	PRE	A	60 a	97 a	99 a	99 a	99 a
	V-10463	0.45	ME	0.081	lb ai/a	23	fl oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
	LSD P=.05									45.6	3.3	0.6	1.8	0.9
	Standard Deviation									25.1	1.9	0.3	1.0	0.5
	CV									41.28	1.97	0.34	1.04	0.51
	Replicate F									5.052	4.798	1.000	1.515	1.333
	Replicate Prob(F)									0.0305	0.0233	0.3897	0.2496	0.2914
	Treatment F									3.948	1.859	0.750	1.515	1.000
	Treatment Prob(F)									0.0250	0.1385	0.6491	0.2278	0.4726

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									SETFA	SETFA	SETFA	SETFA	SETFA
	Crop Code													
	Rating Date									6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
1	NONTREATED									0	0	0	0	0
2	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B		97 a	99 a	98 a	99 a
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
3	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	53 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
4	BOUNDARY	6.5	EC	1.63	lb ai/a	2	pt/a	PRE	A	87 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
5	AUTHORITY ELITE	7	SC	1.37	lb ai/a	25	fl oz/a	PRE	A	78 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
6	ZIDUA PRO	4.09	SC	0.144	lb ai/a	4.5	fl oz/a	PRE	A	80 a	99 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
7	FIERCE MTZ	2.64	SC	0.33	lb ai/a	1	pt/a	PRE	A	50 a	98 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
8	FIERCE	76	WG	0.178	lb ai/a	3.75	oz/a	PRE	A	47 a	98 a	99 a	98 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					

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Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Southern Illinois University

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									SETFA	SETFA	SETFA	SETFA	SETFA
	Crop Code													
	Rating Date									6-5-17	6-19-17	6-26-17	7-7-17	7-21-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									9 DA-A	23 DA-A	30 DA-A	41 DA-A	55 DA-A
	Trt-Eval Interval									9 DA-A	10 DA-B	17 DA-B	15 DA-C	29 DA-C
9	V-10425	1.52	CS	0.143	lb ai/a	12	fl oz/a	PRE	A	40 a	98 a	99 a	99 a	99 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
10	VALOR EZ	4	SC	0.0625	lb ai/a	2	fl oz/a	PRE	A	33 a	99 a	99 a	99 a	99 a
	V-10463	0.45	ME	0.081	lb ai/a	23	fl oz/a	PRE	A					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2"W	B					
	AMS	100	SG	2	% w/w	2.5	lb/a	2"W	B					
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	14DA-B	C					
	SELECT MAX	0.97	EC	0.0455	lb ai/a	6	fl oz/a	14DA-B	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	14DA-B	C					
	AMS	100	SG	2	% w/w	2.5	lb/a	14DA-B	C					
	LSD P=.05									42.3	1.4	0.3	0.9	0.3
	Standard Deviation									24.1	0.8	0.2	0.5	0.2
	CV									41.23	0.82	0.19	0.53	0.19
	Replicate F									4.314	0.229	1.000	0.400	1.000
	Replicate Prob(F)									0.0347	0.7982	0.3897	0.6768	0.3897
	Treatment F									2.107	2.500	1.000	0.600	1.000
	Treatment Prob(F)									0.1115	0.0565	0.4726	0.7647	0.4726

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=7,9,6
Could not calculate LSD (% mean diff) for columns 5,22,28,18 because error mean square = 0.

Southern Illinois University

Flumioxazin in a Liberty Link Soybean System.
Trial ID: 17-19B-M50 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Valent (FierceMD 6401).
2. Ratings:
   CI 21, 28, 42, and 56 DA-A, rate all plots each time, all based on DA-A.
   WC 21, 28, 42, and 56 DA-A, rate all plots each time, all based on DA-A.
   0 DA-C, record, per plot, if application C was needed (were there weeds?) like it was another rating timing.
   If rated just prior to application C, we can assume anything other than all 99's needed application C.
3. Yield not requested, do not sell grain from trts 9+10.
4. Application B is 2 inch weeds in treatment 3, apply all B's the same day.
   Ideally we would get the 21 DA-A rating before application B and spray B at either 21 or 28 DA-A.
   Application C is 14 days after application B, whether needed or not.
5. Photos requested if see something new, probably prior to application B.
6. Report data as DA-A, include dates.
7. Email Ron Estes when this is planted.

Rainfall following application A was 0.22" over 1 day begining 7 hours after application.
Rainfall following application B was 1.1" over 2 days begining 5 days after application.
The first substantial rainfall (greater than 0.05") following application C was 0.33" over 2 days begining 13 days after application.

CI on 6/26 was slight chlorosis on upper leaves.

Pictures available of 1st rep from 6/5 (prior to B) and 6/19 (10 DA-B).

Southern Illinois University

Authority Anthem Maxx Product Understanding.
Trial ID: 17-KRC-FMCsoybean Location: Kuehn Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-24-17
Completion Date: 9-30-17

Trial Location

City: De Soto **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62924

Latitude of LL Corner °: 37.932067 N
Longitude of LL Corner °: 89.244986 W
Altitude of LL Corner, Unit: 413.00 FT
Angle y-axis to North °: 0.00

Objectives:
Demonstrate the value of residual herbicides such as Authority and Anthem on PPO-resistant AMATA.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 39X7 **BBCH Scale:** BSOY
Description: RR2X **Maturity Group:** III
Planting Date: 5-25-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 67 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common
Description: PPO-resistant waterhemp

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: KRC1_2011 all avaeraged
% OM: 2.3 **Texture:** SIL silt loam
pH: 6.7 **Soil Name:** Hoyleton/Wynoose
CEC: 9.8

Additional Measured Elements

Element	Quantity	Unit
P1	59	lb/A
K	181	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: SOUTHERN IL AIRPORT (93810) **Distance, Unit:** 11 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-22-17					7	DAY	41	77	F
2.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
3.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
4.	4-29-17					7	DAY	45	82	F
5.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
6.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
7.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
8.	5-6-17					7	DAY	42	83	F
9.	5-13-17					7	DAY	50	85	F
10.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
11.	5-20-17					7	DAY	51	84	F
12.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
13.	5-27-17					7	DAY	56	87	F
14.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
15.	6-3-17					7	DAY	54	87	F
16.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
17.	6-10-17					7	DAY	57	92	F
18.	6-15-17	0.13	IN	RAIN	rain	1	DAY			
19.	6-17-17					7	DAY	61	90	F
20.	6-18-17	0.8	IN	RAIN	rain	1	DAY			
21.	6-22-17	1.02	IN	RAIN	rain	2	DAY			
22.	6-24-17					7	DAY	54	87	F
23.	6-30-17	0.02	IN	RAIN	rain	1	DAY			
24.	7-1-17					7	DAY	63	90	F
25.	7-5-17	0.9	IN	RAIN	rain	3	DAY			
26.	7-8-17					7	DAY	67	93	F
27.	7-13-17	0.69	IN	RAIN	rain	2	DAY			
28.	7-15-17					7	DAY	61	95	F
29.	7-17-17	0.56	IN	RAIN	rain	1	DAY			
30.	7-22-17					7	DAY	69	94	F
31.	7-23-17	0.03	IN	RAIN	rain	1	DAY			
32.	7-27-17	0.02	IN	RAIN	rain	1	DAY			
33.	7-29-17					7	DAY	55	89	F
34.	8-1-17	0.06	IN	RAIN	rain	1	DAY			
35.	8-3-17	0.03	IN	RAIN	rain	1	DAY			
36.	8-5-17					7	DAY	50	78	F
37.	8-6-17	1.35	IN	RAIN	rain	2	DAY			
38.	8-11-17	0.97	IN	RAIN	rain	1	DAY			
39.	8-12-17					7	DAY	56	88	F
40.	8-14-17	0.01	IN	RAIN	rain	1	DAY			
41.	8-16-17	0.69	IN	RAIN	rain	2	DAY			
42.	8-19-17					7	DAY	66	90	F
43.	8-26-17					7	DAY	55	85	F
44.	8-28-17	0.1	IN	RAIN	rain	1	DAY			
45.	9-2-17					7	DAY	42	90	F
46.	9-4-17	0.05	IN	RAIN	rain	1	DAY			
47.	9-9-17					7	DAY	46	85	F
48.	9-12-17	0.15	IN	RAIN	rain	2	DAY			
49.	9-16-17					7	DAY	60	87	F
50.	9-17-17	1.57	IN	RAIN	rain	3	DAY			
51.	9-23-17					7	DAY	48	90	F
52.	9-30-17					7	DAY	43	83	F

Application Description

	A	B
Application Date:	5-25-17	6-19-17
Appl. Start Time:	19:35	8:45
Appl. Stop Time:	19:50	8:55
Interval to Prev. Appl., Unit:		25 DAYS
Application Method:	Spray	Spray
Application Timing:	PRE	V2
Application Placement:	BROSOI	BROFOL
Applied By:	RLS	CC
Air Temperature, Unit:	65 F	78 F
% Relative Humidity:	68	58
Wind Velocity, Unit:	1.1 MPH	4 MPH
Wind Direction:	S	NW
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	68 F	80 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	0	0
Next Moisture Occurred On:	5-27-17	6-22-17
Time to Next Moisture, Unit:	43 HR	72 HR

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	NA	V2
Stage Minimum, Percent:		V2
Stage Maximum, Percent:		V2
Height, Unit:		4.5 IN
Height Minimum, Maximum:		4 5

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMATA W	AMATA W
Stage Majority, Percent:		11
Stage Minimum, Percent:		COTY
Stage Maximum, Percent:		16
Height, Unit:		2.5 IN
Height Minimum, Maximum:		0.5 4
Density, Unit:		0.05 FT2

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI
Nozzle Type:	XR	XR
Nozzle Size:	8002	8002
Nozzle Spacing, Unit:	20 IN	20 IN
Boom Length, Unit:	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

Authority Anthem Maxx Product Understanding.
Trial ID: 17-KRC-FMCsoybean Location: Kuehn Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
Pest Code													
Crop Code										GLXMA	GLXMA	GLXMA	GLXMA
Rating Date										6-8-17	6-21-17	6-19-17	7-5-17
Rating Type										Injury	Injury	Injury	Injury
Rating Unit										0-99	0-99	0-99	0-99
Rating Timing													
Trt-Eval Interval										14 DA-A	27 DA-A	0 DA-B	16 DA-B
1	NONTREATED									0	0		
2	AUTHORITY MAXX	66	WG	0.268	lb ai/a	6.5	oz/a	PRE	A	72 a	63 a		
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
3	AUTHORITY ELITE	7	SC	1.75	lb ai/a	32	fl oz/a	PRE	A	69 a	54 a		
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
4	AUTHORITY MTZ	45	WG	0.42	lb ai/a	15	oz/a	PRE	A	42 abc	45 a		
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
5	ANTHEM MAXX	4.3	SC	0.109	lb ai/a	3.25	fl oz/a	PRE	A	34 bc	25 a		
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
6	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	56 ab	43 a		
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
7	BOUNDARY	6.5	EC	1.46	lb ai/a	1.8	pt/a	PRE	A	25 bc	15 a		
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
8	METRIBUZIN 75	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	13 c	0 a		
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
9	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A	46 abc	34 a		
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A				
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A				
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
10	AUTHORITY MAXX	66	WG	0.206	lb ai/a	5	oz/a	PRE	A	48 ab	34 a	34	41
	ANTHEM MAXX	4.3	SC	0.101	lb ai/a	3	fl oz/a	V2	B				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	V2	B				
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
LSD P=.05										33.4	37.2	.	.
Standard Deviation										22.7	25.4	.	.
CV										50.45	73.36	.	.
Replicate F										0.379	0.853		
Replicate Prob(F)										0.7695	0.4801		
Treatment F										2.873	2.323		
Treatment Prob(F)										0.0265	0.0562		

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=5,9,16
Could not calculate LSD (% mean diff) for columns 7,11,8 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code										AMATA	AMATA	AMATA	AMATA	AMATA
Crop Code														
Rating Date										6-8-17	6-19-17	6-21-17	7-25-17	8-23-17
Rating Type										Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing														
Trt-Eval Interval										14 DA-A	0 DA-B	27 DA-A	59 DA-A	90 DA-A
1	NONTREATED									0		0	0	0
2	AUTHORITY MAXX	66	WG	0.268	lb ai/a	6.5	oz/a	PRE	A	99 a		92 ab	38 cd	29 b-e
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR						
3	AUTHORITY ELITE	7	SC	1.75	lb ai/a	32	fl oz/a	PRE	A	99 a		98 a	79 a	66 ab
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR						
4	AUTHORITY MTZ	45	WG	0.42	lb ai/a	15	oz/a	PRE	A	99 a		92 ab	40 bcd	28 cde
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR						
5	ANTHEM MAXX	4.3	SC	0.109	lb ai/a	3.25	fl oz/a	PRE	A	99 a		96 a	63 abc	53 a-e
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR						
6	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	99 a		97 a	71 ab	55 a-d
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR						
7	BOUNDARY	6.5	EC	1.46	lb ai/a	1.8	pt/a	PRE	A	99 a		96 a	71 ab	60 abc
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR						
8	METRIBUZIN 75	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	98 a		63 c	28 d	18 de
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR						
9	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A	98 a		80 b	19 d	16 e
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A					
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR						
10	AUTHORITY MAXX	66	WG	0.206	lb ai/a	5	oz/a	PRE	A	99 a	96	96 a	83 a	71 a
	ANTHEM MAXX	4.3	SC	0.101	lb ai/a	3	fl oz/a	V2	B					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	V2	B					
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR						
LSD P=.05										1.4	.	15.0	33.0	38.5
Standard Deviation										1.0	.	10.3	22.6	26.4
CV										0.97	.	11.44	41.59	60.12
Replicate F										0.640		2.027	2.318	0.785
Replicate Prob(F)										0.5967		0.1369	0.1010	0.5143
Treatment F										0.840		4.938	4.391	2.631
Treatment Prob(F)										0.5774		0.0011	0.0022	0.0318

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=5,9,16
Could not calculate LSD (% mean diff) for columns 7,11,8 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 9-30-17 Weight Harvest	GLXMA 9-30-17 Moisture Harvest	GLXMA 9-30-17 Test Weight Harvest	GLXMA 9-30-17 Yield Harvest
1	NONTREATED									0.4 d	1.5 a	9.9 c	2.4 b
2	AUTHORITY MAXX	66	WG	0.268	lb ai/a	6.5	oz/a	PRE	A	1.9 bc	9.9 a	29.7 ab	9.6 a
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
3	AUTHORITY ELITE	7	SC	1.75	lb ai/a	32	fl oz/a	PRE	A	3.3 a	14.8 a	42.4 a	16.0 a
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
4	AUTHORITY MTZ	45	WG	0.42	lb ai/a	15	oz/a	PRE	A	2.4 abc	10.4 a	28.1 b	11.6 a
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
5	ANTHEM MAXX	4.3	SC	0.109	lb ai/a	3.25	fl oz/a	PRE	A	2.7 abc	9.9 a	32.4 ab	13.6 a
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
6	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	PRE	A	2.7 abc	6.3 a	31.8 ab	13.9 a
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
7	BOUNDARY	6.5	EC	1.46	lb ai/a	1.8	pt/a	PRE	A	3.0 abc	6.9 a	33.3 ab	15.2 a
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
8	METRIBUZIN 75	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	1.8 c	9.6 a	25.7 b	9.3 a
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
9	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A	2.0 abc	11.7 a	23.8 b	9.9 a
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A				
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A				
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
10	AUTHORITY MAXX	66	WG	0.206	lb ai/a	5	oz/a	PRE	A	3.2 ab	11.0 a	36.6 ab	15.9 a
	ANTHEM MAXX	4.3	SC	0.101	lb ai/a	3	fl oz/a	V2	B				
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	V2	B				
	SELECT MAX	0.97	EC	0.076	lb ai/a	10	fl oz/a	4"GR					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	4"GR					
LSD P=.05										1.37	7.23	13.45	6.91
Standard Deviation										0.94	4.98	9.19	4.76
CV										40.09	54.13	31.32	40.57
Replicate F										0.666	0.061	1.843	0.603
Replicate Prob(F)										0.5800	0.9798	0.1675	0.6189
Treatment F										3.234	2.113	3.551	3.084
Treatment Prob(F)										0.0086	0.0644	0.0068	0.0112

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=5,9,16
Could not calculate LSD (% mean diff) for columns 7,11,8 because error mean square = 0.

Authority Anthem Maxx Product Understanding.
Trial ID: 17-KRC-FMCsoybean Location: Kuehn Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: FMC (AuthAnthMaxx).
2. Ratings:
   CI at 15 and 30 DA-A, and for trt 10 at 0 and 15 DA-B, see note below.
   WC at 15, 30, 60, and 90 DA-A and for trt 10 at 0 DA-B, see note below.
   Rate before spray application B for treatment 10 if more than 5 days since last rating.
3. Yield if possible, note that area is under volunteer monitoring for Matt's 2016 Enlist soybeans.
   Do not sell grain if Enlist soybeans (possible volunteers from 2016) are not approved for sale.
4. Blanket applications early to start clean.
5. Blanket multiple applications of grass herbicide as needed but probably start after applcation B.
   Blankets for grass control are 10 FT wide to all plots, spray borders at the same time.
   Possible late season blanket of Liberty or dicamba depending on SB variety if going to yield.
6. This trial is probably best planted to RR2X soybean, due to proximity to dicamba applications in adjacent trials.

'Start-clean' burndown application of paraquat (1 lb ai/A) + MSO (1% v/v) applied 5/24/17.
Maintainance application of Clethodim (0.076 lb ai/ A) + COC (1% v/v) applied 6/19/17.

Rainfall following application A was 0.63" over 1 day beginning 44 hours after application.
Rainfall following application B was 1.02" over 2 days beginning 48 hours after application.

At 14 DA-A soybean stand was generally poor and was attributed to a combination of PPO injury and slug damage. This same injury was also observed in the non-treated checks strips on the edges of plots; this may have been the result of lateral herbicide movement on the soil surface during the first rainfall event after the A application.

Poor stand, not attributed to herbicide injury, was observed in the first column of the trial (plots 101, 201, 301, and 401); those plots were considered missing data.

CI at 16 DA-B in treatment 10 included leaf crinckling and drawsting symptoms (10-15% for all four reps). This rating at 16 DA-B is a combination of these symptoms and stand loss.

Pictures available upon request.

Southern Illinois University

Tank-Mix Partners for Roundup Powermax Burndown in No-Till Soybean - BASF.
Trial ID: 17-DSO-BASF-S36 Location: De Soto, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 4-24-17
Completion Date: 6-6-17

Trial Location

City: De Soto **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62924

Latitude of LL Corner °: 37.796544 N
Longitude of LL Corner °: 89.262686 W USAIL 42.5083389 - 36.9702949
Altitude of LL Corner, Unit: 380.00 FT -87.0199279 - -91.5130844
Angle y-axis to North °: 270.00

Objectives:
Evaluate burndown and residual weed control in no-till soybean with an early preplant application.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 39X7 **BBCH Scale:** BSOY
Description: RR2X

Planting Date: 5-9-17
Planting Method: SEEDED

Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 66 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common
Description: glyphosate-resistant waterhemp

Pest 2 Type: W **Code:** ERICA Conyza canadensis (L.) Crong.
Common Name: horseweed
Description: glyphosate-resistant marestail

Pest 3 Type: W **Code:** ERIPH Erigeron philadelphicus
Common Name: Daisy fleabane

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	NON-CROP	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: DSO_west_2016
% Sand: 15.4 **% OM:** 1.96 **Texture:** SIL silt loam
% Silt: 64.7 **pH:** 7.1 **Soil Name:** Okaw
% Clay: 19.9 **CEC:** 7.91

Additional Measured Elements

Element	Quantity	Unit
P1	52	lb/A
K	278	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: SOUTHERN IL AIRPORT (93810) **Distance, Unit:** 1.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-17					7	DAY	40	72	F
2.	4-3-17	0.47	IN	RAIN	rain	1	DAY			
3.	4-5-17	0.92	IN	RAIN	rain	1	DAY			
4.	4-6-17	0.06	IN	RAIN	rain	1	DAY			
5.	4-8-17					7	DAY	37	82	F
6.	4-10-17	0.09	IN	RAIN	rain	2	DAY			
7.	4-15-17					7	DAY	50	81	F
8.	4-16-17	0.85	IN	RAIN	rain	3	DAY			
9.	4-20-17	1.6	IN	RAIN	rain	3	DAY			
10.	4-22-17					7	DAY	41	77	F
11.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
12.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
13.	4-29-17					7	DAY	45	82	F
14.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
15.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
16.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
17.	5-6-17					7	DAY	42	83	F
18.	5-13-17					7	DAY	50	85	F
19.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
20.	5-20-17					7	DAY	51	84	F
21.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
22.	5-27-17					7	DAY	56	87	F
23.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
24.	6-3-17					7	DAY	54	87	F
25.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
26.	6-10-17					7	DAY	57	92	F

Application Description

	A
Application Date:	4-24-17
Appl. Start Time:	12:35
Appl. Stop Time:	12:50
Application Method:	Spray
Application Timing:	7-14EPP
Application Placement:	BROFOL
Applied By:	RLS
Air Temperature, Unit:	72 F
% Relative Humidity:	37
Wind Velocity, Unit:	4 MPH
Wind Direction:	E
Dew Presence (Y/N):	N
Soil Temperature, Unit:	71 F
Soil Moisture:	AN
% Cloud Cover:	0
Next Moisture Occurred On:	4-26-17
Time to Next Moisture, Unit:	50 HR

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	GLXMA
Stage Scale Used:	DESC
Stage Majority, Percent:	NA

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	AMATA W
Stage Majority, Percent:	NA
Pest 2 Code, Type, Scale:	ERICA W
Stage Majority, Percent:	30
Stage Minimum, Percent:	4
Stage Maximum, Percent:	50
Height, Unit:	4 IN
Height Minimum, Maximum:	0.5 9
Density, Unit:	3 FT2
Pest 3 Code, Type, Scale:	ERIPH W
Stage Majority, Percent:	50+
Stage Minimum, Percent:	11
Stage Maximum, Percent:	50+
Height, Unit:	12 IN
Height Minimum, Maximum:	2 6
Density, Unit:	0.5 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Nozzle Spacing, Unit:	20 IN
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Tank-Mix Partners for Roundup Powermax Burndown in No-Till Soybean - BASF.

Trial ID: 17-DSO-BASF-S36 Location: De Soto, IL Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code											ERICA	ERICA
	Crop Code									GLXMA	GLXMA		
	Rating Date									5-22-17	5-29-17	5-8-17	5-22-17
	Rating Type									Injury	Injury	Burndown	Burndown
	Rating Unit									0-99	0-99	0-99	0-99
	Rating Timing									7 DAE	14 DAE	0 DAP	13 DAP
	Trt-Eval Interval									28 DA-A	35 DA-A	14 DA-A	28 DA-A
1	NONTREATED									0 a	0 a	0	0
2	ZIDUA SC	100	SC	3.3	fl oz/a	3.3	fl oz/a	7-14	EPP A	0 a	0 a	98 a	97 a
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7-14	EPP A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14	EPP A				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14	EPP A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14	EPP A				
3	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	7-14	EPP A	0 a	0 a	99 a	92 ab
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14	EPP A				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14	EPP A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14	EPP A				
4	ZIDUA SC	100	SC	3.3	fl oz/a	3.3	fl oz/a	7-14	EPP A	0 a	0 a	98 a	93 ab
	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	7-14	EPP A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14	EPP A				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14	EPP A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14	EPP A				
5	AUTHORITY FIRST DF	70	WG	0.219	lb ai/a	5	oz/a	7-14	EPP A	0 a	0 a	64 b	75 bc
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14	EPP A				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14	EPP A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14	EPP A				
6	FIERCE XLT	62.41	WG			4.5	oz/a	7-14	EPP A	0 a	0 a	70 b	59 c
	CLASSIC	25	WG	0.01876	lb ai/a			7-14	EPP A				
	VALOR SX	51	WG	0.0691	lb ai/a			7-14	EPP A				
	ZIDUA	85	WG	0.08767	lb ai/a			7-14	EPP A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14	EPP A				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14	EPP A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14	EPP A				
7	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	7-14	EPP A	0 a	0 a	99 a	86 ab
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	7-14	EPP A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14	EPP A				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14	EPP A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14	EPP A				
8	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	7-14	EPP A	0 a	0 a	99 a	95 a
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	7-14	EPP A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14	EPP A				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14	EPP A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14	EPP A				
9	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	7-14	EPP A	0 a	0 a	53 c	65 c
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	7-14	EPP A				
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14	EPP A				
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14	EPP A				
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14	EPP A				
	LSD P=.05									.	.	6.4	19.2
	Standard Deviation									0.0	0.0	4.3	13.1
	CV									0.0	0.0	5.12	15.84
	Replicate F									0.000	0.000	1.032	3.580
	Replicate Prob(F)									1.0000	1.0000	0.3989	0.0311
	Treatment F									0.000	0.000	79.725	5.001
	Treatment Prob(F)									1.0000	1.0000	0.0001	0.0019

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=10
Could not calculate LSD (% mean diff) for columns 8,12 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	ERIPH	ERIPH	AMATA	AMATA	AMATA	AMATA
	Pest Code									ERIPH	ERIPH	AMATA	AMATA	AMATA	AMATA
	Crop Code														
	Rating Date									5-8-17	5-22-17	5-15-17	5-22-17	5-29-17	6-6-17
	Rating Type									Burndown	Burndown	Residual	Residual	Residual	Residual
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									0 DAP	13 DAP	6 DAP	13 DAP	20 DAP	28 DAP
	Trt-Eval Interval									14 DA-A	28 DA-A	21 DA-A	28 DA-A	35 DA-A	42 DA-A
1	NONTREATED									0	0	0	0	0	0
2	ZIDUA SC	100	SC	3.3	fl oz/a	3.3	fl oz/a	7-14EPP	A	89 ab	98 a	13 b	13 cd	0 d	0 c
	SHARPEN	2.85	SC	0.0223	lb ai/a	1	fl oz/a	7-14EPP	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14EPP	A						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14EPP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14EPP	A						
3	ZIDUA PRO	4.09	SC	0.192	lb ai/a	6	fl oz/a	7-14EPP	A	89 ab	96 a	13 b	38 abc	21 cd	5 c
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14EPP	A						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14EPP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14EPP	A						
4	ZIDUA SC	100	SC	3.3	fl oz/a	3.3	fl oz/a	7-14EPP	A	68 cd	98 a	0 b	6 cd	0 d	10 c
	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	7-14EPP	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14EPP	A						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14EPP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14EPP	A						
5	AUTHORITY FIRST DF	70	WG	0.219	lb ai/a	5	oz/a	7-14EPP	A	40 e	88 a	79 a	69 a	68 a	58 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14EPP	A						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14EPP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14EPP	A						
6	FIERCE XLT	62.41	WG			4.5	oz/a	7-14EPP	A	53 de	90 a	85 a	56 ab	59 ab	33 b
	CLASSIC	25	WG	0.01876	lb ai/a			7-14EPP	A						
	VALOR SX	51	WG	0.0691	lb ai/a			7-14EPP	A						
	ZIDUA	85	WG	0.08767	lb ai/a			7-14EPP	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14EPP	A						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14EPP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14EPP	A						
7	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	7-14EPP	A	95 a	99 a	19 b	0 d	13 cd	13 bc
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	7-14EPP	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14EPP	A						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14EPP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14EPP	A						
8	VERDICT	5.57	EC	0.218	lb ai/a	5	fl oz/a	7-14EPP	A	94 a	97 a	0 b	0 d	0 d	0 c
	OUTLOOK	6	EC	0.234	lb ai/a	5	fl oz/a	7-14EPP	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14EPP	A						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14EPP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14EPP	A						
9	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	7-14EPP	A	73 bc	87 a	77 a	30 bcd	39 bc	33 b
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	7-14EPP	A						
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	7-14EPP	A						
	MSO (MSO ULTRA)	100	SL	1	% v/v	1	% v/v	7-14EPP	A						
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	7-14EPP	A						
	LSD P=.05									17.2	9.9	28.3	31.9	28.3	22.1
	Standard Deviation									7.3	6.7	19.2	21.7	19.3	15.0
	CV									9.74	7.09	54.04	82.06	77.5	80.21
	Replicate F									0.005	2.930	0.358	0.246	0.873	2.137
	Replicate Prob(F)									0.9471	0.0635	0.7838	0.8634	0.4707	0.1259
	Treatment F									15.644	2.290	15.324	5.859	7.984	7.295
	Treatment Prob(F)									0.0009	0.0773	0.0001	0.0007	0.0001	0.0002

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=10
Could not calculate LSD (% mean diff) for columns 8,12 because error mean square = 0.

Southern Illinois University

Tank-Mix Partners for Roundup Powermax Burndown in No-Till Soybean - BASF.

Trial ID: 17-DSO-BASF-S36 Location: De Soto, IL Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: BASF (MKD-H-2017-US-S36-A-01.0.
2. Ratings:
   CI at 7 and 14 days after emergence.
   WC as marestail burndown (and other winter annuals) at planting or 14 DA-A, then again at 28 DA-A.
   WC as residual for waterhemp (and other summer annual weeds) at planting or 14 DA-A,
   then 21, 28, and 42 DA-A, or until all treatments have broke.
3. Yield not requested.
4. Blanket applications of Select as needed for grass control at about 14 DAP.
5. Application A is 7-14EPP (7-14 days before planting) but 6-8 inch marestail max.
6. If planting is delayed due to weather, make WC ratings as if the crop was planted on time.

Blanket application of clethodim (0.125 lb ai/A) + COC (1% v/v) was applied on 5-24.

Rainfall following EPP application A was 1.57" over 13 hours begining 50 hours later
Reduction in ERICA control in some plots 28 DA-A is due to regrowth.

ERIPH pressure was inconsistent across the trial.

Pictures available upon request from 5/8, 5/29, and 6/6.

Xtend Double Crop Soybean.
Trial ID: 17-11A-E90-MON-B7-04 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 6-16-17
Completion Date: 10-20-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.517201 N
Longitude of LL Corner °: 89.84123 W USAIL 42.5083389 - 36.9702949
-87.0199279 - -91.5130844

Objectives:
Evaluate the effectiveness of dicamba in the burndown application of cut weeds.

Contacts

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Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 39X7 **BBCH Scale:** BSOY
Description: RR2X **Maturity Group:** III
Planting Date: 6-16-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 75 F
Soil Moisture: NORMAL
Seed Bed: MEDTRA

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 2 Type: W **Code:** AMBEL Ambrosia artemisiifolia L.
Common Name: ragweed, common

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 4 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Site and Design

Treated Plot Width: 10 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	TRZAW	2017

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: 11A_2013
% OM: 2.9 **Texture:** SIL silt loam
pH: 6.8 **Soil Name:** Pierron
CEC: 9

Additional Measured Elements

Element	Quantity	Unit
P1	72	lb/A
K	345	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-20-17					7	DAY	50	80	F
2.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
3.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
4.	5-27-17					7	DAY	55	87	F
5.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
6.	6-3-17					7	DAY	54	89	F
7.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
8.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
9.	6-17-17					7	DAY	62	92	F
10.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
11.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
12.	6-24-17					7	DAY	53	91	F
13.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
14.	7-1-17					7	DAY	60	93	F
15.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
16.	7-8-17					7	DAY	67	98	F
17.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
18.	7-15-17					7	DAY	60	91	F
19.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
20.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
21.	7-22-17					7	DAY	69	99	F
22.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
23.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
24.	7-29-17					7	DAY	61	83	F
25.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
26.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
27.	8-5-17					7	DAY	55	87	F
28.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
29.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
30.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
31.	8-12-17					7	DAY	56	84	F
32.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
33.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
34.	8-19-17					7	DAY	56	94	F
35.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
36.	8-26-17					7	DAY	56	86	F
37.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
38.	9-2-17					7	DAY	47	95	F
39.	9-4-17	0.79	IN	RAIN	rain	1	DAY			
40.	9-9-17					7	DAY	57	83	F
41.	9-12-17	0.12	IN	RAIN	rain	2	DAY			
42.	9-16-17					7	DAY	61	95	F
43.	9-18-17	0.06	IN	RAIN	rain	1	DAY			
44.	9-23-17					7	DAY	49	93	F
45.	9-30-17					7	DAY	48	84	F
46.	10-3-17	0.38	IN	RAIN	rain	1	DAY			
47.	10-5-17	0.05	IN	RAIN	rain	1	DAY			
48.	10-7-17	0.13	IN	RAIN	rain	1	DAY			
49.	10-7-17					7	DAY	50	85	F
50.	10-9-17	0.3	IN	RAIN	rain	1	DAY			
51.	10-10-17	0.28	IN	RAIN	rain	1	DAY			
52.	10-14-17					7	DAY	40	88	F
53.	10-15-17	0.66	IN	RAIN	rain	1	DAY			
54.	10-21-17					7	DAY	36	79	F

Application Description

	A	B	C	D
Application Date:	6-19-17	6-19-17	7-10-17	7-10-17
Appl. Start Time:	6:40	6:40	6:09	6:09
Appl. Stop Time:	7:25	7:25	6:49	6:49
Interval to Prev. Appl., Unit:	-1 HOURS	-1 HOURS	21 DAYS	21 DAYS
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	5DAH	5DAH	3"W	3"W
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	MCG	MCG	CC	CC
Air Temperature, Unit:	76 F	76 F	77 F	77 F
% Relative Humidity:	59	59	79	79
Wind Velocity, Unit:	10 MPH	10 MPH	8 MPH	8 MPH
Wind Direction:	NW	NW	SSW	SSW
Dew Presence (Y/N):	Y	Y	Y	Y
Soil Temperature, Unit:	74 F	74 F	78 F	78 F
Soil Moisture:	ABONOR	ABONOR	NORMAL	NORMAL
% Cloud Cover:	0	0	60	60
Next Moisture Occurred On:	7-5-17	7-5-17	7-16-17	7-16-17
Time to Next Moisture, Unit:	16 DAY	16 DAY	6 DAY	6 DAY

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	NA	V2	V2
Stage Minimum, Percent:			V2	V2
Stage Maximum, Percent:			V2	V2
Height, Unit:			8 IN	8 IN
Height Minimum, Maximum:			7.5 8	7.5 8

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	AMATA W	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	10	10	10	10
Stage Minimum, Percent:	COTY	COTY	8	8
Stage Maximum, Percent:	26	26	21	21
Height, Unit:	7 IN	7 IN	4 IN	4 IN
Height Minimum, Maximum:	0.2 14	0.2 14	3 9	3 9
Density, Unit:	5 FT2	5 FT2	0.03 FT2	0.03 FT2
Pest 2 Code, Type, Scale:	AMBEL W	AMBEL W	AMBEL W	AMBEL W
Pest 3 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	20	20	20	20
Stage Minimum, Percent:	COTY	COTY	7	7
Stage Maximum, Percent:	32	32	50+	50+
Height, Unit:	16 IN	16 IN	16 IN	16 IN
Height Minimum, Maximum:	0.3 33	0.3 33	3 21	3 21
Density, Unit:	1 FT2	1 FT2	0.05 FT2	0.05 FT2
Pest 4 Code, Type, Scale:	SETFA W	SETFA W	SETFA W	SETFA W

Application Equipment

	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	TTI	XR	TTI	XR
Nozzle Size:	11002	8002	11002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN
Boom Length, Unit:	10 FT	10 FT	10 FT	10 FT
Spray Volume, Unit:	12 GPA	12 GPA	12 GPA	12 GPA

Southern Illinois University

Xtend Double Crop Soybean.
Trial ID: 17-11A-E90-MON-B7-04 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code											AMATA	AMATA	AMATA
	Crop Code									GLXMA	GLXMA			
	Rating Date									7-6-17	7-11-17	7-6-17	7-11-17	10-20-17
	Rating Type									Injury	Injury	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA-A+B	0 DA-C+D	17 DA-A+B	0 DA-C+D	Harvest
1	NONTREATED									0	0	0	0	0
2	TTI NOZZLES							5DAH	A	0 b	0 b	90 cde	90 c-f	97 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
3	TTI NOZZLES							5DAH	A	1 b	0 b	84 e	84 f	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
4	TTI NOZZLES							5DAH	A	8 b	5 b	97 ab	97 abc	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
5	TTI NOZZLES							5DAH	A	5 b	0 b	94 abc	94 a-d	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A					
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
6	TTI NOZZLES							5DAH	A	40 a	19 a	99 a	99 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=14,20
Could not calculate LSD (% mean diff) for columns 11,17,22,25,24 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code											AMATA	AMATA	AMATA
	Crop Code									GLXMA	GLXMA			
	Rating Date									7-6-17	7-11-17	7-6-17	7-11-17	10-20-17
	Rating Type									Injury	Injury	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA-A+B	0 DA-C+D	17 DA-A+B	0 DA-C+D	Harvest
7	XR NOZZLES							5DAH	B	0 b	0 b	88 de	86 ef	94 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
8	XR NOZZLES							5DAH	B	0 b	0 b	97 ab	97 ab	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	B					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
9	XR NOZZLES							5DAH	B	34 a	18 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	B					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
10	XR NOZZLES							5DAH	B	0 b	0 b	94 a-d	94 a-d	95 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B					
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	B					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
11	XR NOZZLES							5DAH	B	0 b	0 b	93 bcd	91 b-e	95 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	5DAH	B					
	XR NOZZLES							3"W	D					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D					
12	XR NOZZLES							5DAH	B	0 b	0 b	94 a-d	89 def	92 a
	GRAMOXONE SL 2.0	2	SL	0.625	lb ai/a	2.5	pt/a	5DAH	B					
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B					
	COC	100	SL	1	% v/v	1	% v/v	5DAH	B					
	XR NOZZLES							3"W	D					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D					
	LSD P=.05									8.0	5.4	6.4	6.9	6.5
	Standard Deviation									5.5	3.7	4.5	4.7	4.5
	CV									69.76	99.7	4.78	5.13	4.62
	Replicate F									3.665	0.583	2.230	2.306	2.134
	Replicate Prob(F)									0.0231	0.6310	0.1051	0.0968	0.1168
	Treatment F									27.613	15.114	4.580	4.575	1.395
	Treatment Prob(F)									0.0001	0.0001	0.0006	0.0006	0.2301

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Missing data estimates are included in columns:Average=14,20
Could not calculate LSD (% mean diff) for columns 11,17,22,25,24 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									AMBEL	AMBEL	AMBEL
	Crop Code											
	Rating Date									7-6-17	7-11-17	10-20-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									17 DA-A+B	0 DA-C+D	Harvest
1	NONTREATED									0	0	0
2	TTI NOZZLES							5DAH	A	99 a	99 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
3	TTI NOZZLES							5DAH	A	99 a	99 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
4	TTI NOZZLES							5DAH	A	99 a	99 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
5	TTI NOZZLES							5DAH	A	99 a	99 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A			
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
6	TTI NOZZLES							5DAH	A	99 a	99 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=14,20
Could not calculate LSD (% mean diff) for columns 11,17,22,25,24 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
	Pest Code									AMBEL	AMBEL	AMBEL
	Crop Code											
	Rating Date									7-6-17	7-11-17	10-20-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									17 DA-A+B	0 DA-C+D	Harvest
7	XR NOZZLES							5DAH	B	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
8	XR NOZZLES							5DAH	B	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
9	XR NOZZLES							5DAH	B	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
10	XR NOZZLES							5DAH	B	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B			
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
11	XR NOZZLES							5DAH	B	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	5DAH	B			
	XR NOZZLES							3"W	D			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D			
12	XR NOZZLES							5DAH	B	99 a	99 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.625	lb ai/a	2.5	pt/a	5DAH	B			
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B			
	COC	100	SL	1	% v/v	1	% v/v	5DAH	B			
	XR NOZZLES							3"W	D			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D			
	LSD P=.05									.	.	.
	Standard Deviation									0.0	0.0	0.0
	CV									0.0	0.0	0.0
	Replicate F									0.000	0.000	0.000
	Replicate Prob(F)									1.0000	1.0000	1.0000
	Treatment F									0.000	0.000	0.000
	Treatment Prob(F)									1.0000	1.0000	1.0000

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Missing data estimates are included in columns:Average=14,20
Could not calculate LSD (% mean diff) for columns 11,17,22,25,24 because error mean square = 0.

Pest Code									AMBTR	AMBTR	AMBTR
Crop Code											
Rating Date									7-6-17	7-11-17	10-20-17
Rating Type									Control	Control	Control
Rating Unit									0-99	0-99	0-99
Rating Timing											
Trt-Eval Interval									17 DA-A+B	0 DA-C+D	Harvest
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	NONTREATED									0	0	0
2	TTI NOZZLES							5DAH	A	84 a	84 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
3	TTI NOZZLES							5DAH	A	95 a	95 a	98 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
4	TTI NOZZLES							5DAH	A	94 a	94 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
5	TTI NOZZLES							5DAH	A	89 a	89 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A			
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
6	TTI NOZZLES							5DAH	A	89 a	88 a	98 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			

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Missing data estimates are included in columns:Average=14,20
Could not calculate LSD (% mean diff) for columns 11,17,22,25,24 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMBTR	AMBTR	AMBTR
	Pest Code									AMBTR	AMBTR	AMBTR
	Crop Code											
	Rating Date									7-6-17	7-11-17	10-20-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									17 DA-A+B	0 DA-C+D	Harvest
7	XR NOZZLES							5DAH	B	90 a	90 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
8	XR NOZZLES							5DAH	B	78 a	78 a	97 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
9	XR NOZZLES							5DAH	B	91 a	90 a	94 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
10	XR NOZZLES							5DAH	B	86 a	84 a	94 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B			
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
11	XR NOZZLES							5DAH	B	78 a	77 a	95 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	5DAH	B			
	XR NOZZLES							3"W	D			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D			
12	XR NOZZLES							5DAH	B	79 a	78 a	93 a
	GRAMOXONE SL 2.0	2	SL	0.625	lb ai/a	2.5	pt/a	5DAH	B			
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B			
	COC	100	SL	1	% v/v	1	% v/v	5DAH	B			
	XR NOZZLES							3"W	D			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D			
	LSD P=.05									13.2	12.8	7.8
	Standard Deviation									9.2	8.9	5.4
	CV									10.61	10.35	5.59
	Replicate F									0.960	0.804	1.022
	Replicate Prob(F)									0.4242	0.5014	0.3969
	Treatment F									1.944	2.158	0.724
	Treatment Prob(F)									0.0779	0.0507	0.6960

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Missing data estimates are included in columns:Average=14,20
Could not calculate LSD (% mean diff) for columns 11,17,22,25,24 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	CT AMBTR	CT AMBTR	CT AMBTR
	Pest Code									CT AMBTR	CT AMBTR	CT AMBTR
	Crop Code											
	Rating Date									7-6-17	7-11-17	10-20-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									17 DA-A+B	0 DA-C+D	Harvest
1	NONTREATED									0	0	0
2	TTI NOZZLES							5DAH	A	97 a	99 a	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
3	TTI NOZZLES							5DAH	A	65 abc	95 ab	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
4	TTI NOZZLES							5DAH	A	93 a	91 ab	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
5	TTI NOZZLES							5DAH	A	99 a	97 ab	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A			
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
6	TTI NOZZLES							5DAH	A	83 ab	73 c	99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	A			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			

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Missing data estimates are included in columns:Average=14,20
Could not calculate LSD (% mean diff) for columns 11,17,22,25,24 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
Pest Code										CT AMBTR	CT AMBTR	CT AMBTR
Crop Code												
Rating Date										7-6-17	7-11-17	10-20-17
Rating Type										Control	Control	Control
Rating Unit										0-99	0-99	0-99
Rating Timing												
Trt-Eval Interval										17 DA-A+B	0 DA-C+D	Harvest
7	XR NOZZLES							5DAH	B	78 abc	52 d	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
8	XR NOZZLES							5DAH	B	45 c	40 de	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
9	XR NOZZLES							5DAH	B	53 bc	30 e	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
10	XR NOZZLES							5DAH	B	99 a	92 ab	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B			
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	B			
	TTI NOZZLES							3"W	C			
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C			
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C			
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C			
11	XR NOZZLES							5DAH	B	75 abc	85 bc	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B			
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	5DAH	B			
	XR NOZZLES							3"W	D			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D			
12	XR NOZZLES							5DAH	B	98 a	99 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.625	lb ai/a	2.5	pt/a	5DAH	B			
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B			
	COC	100	SL	1	% v/v	1	% v/v	5DAH	B			
	XR NOZZLES							3"W	D			
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D			
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D			
LSD P=.05										34.6	14.1	.
Standard Deviation										23.3	9.4	0.0
CV										29.01	12.16	0.0
Replicate F										0.665	2.637	0.000
Replicate Prob(F)										0.5843	0.0830	1.0000
Treatment F										2.719	28.835	0.000
Treatment Prob(F)										0.0312	0.0001	1.0000

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	SETFA	SETFA	SETFA	GLXMA	GLXMA
	Pest Code									SETFA	SETFA	SETFA		
	Crop Code												GLXMA	GLXMA
	Rating Date									7-6-17	7-11-17	10-20-17	10-20-17	10-20-17
	Rating Type									Control	Control	Control	Yield	Moisture
	Rating Unit									0-99	0-99	0-99	bu/A	Percent
	Rating Timing													
	Trt-Eval Interval									17 DA-A+B	0 DA-C+D	Harvest	Harvest	Harvest
1	NONTREATED									0	0	0	18 b	12.4 a
2	TTI NOZZLES							5DAH	A	96 a	96 a	99 a	63 a	12.8 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
3	TTI NOZZLES							5DAH	A	92 a	92 a	99 a	58 a	12.5 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
4	TTI NOZZLES							5DAH	A	96 a	96 a	99 a	66 a	12.8 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
5	TTI NOZZLES							5DAH	A	96 a	96 a	99 a	66 a	12.7 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A					
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
6	TTI NOZZLES							5DAH	A	94 a	94 a	99 a	62 a	12.7 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	A					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	SETFA 7-6-17 Control 0-99 17 DA-A+B	SETFA 7-11-17 Control 0-99 0 DA-C+D	SETFA 10-20-17 Control 0-99 Harvest	GLXMA 10-20-17 Yield bu/A Harvest	GLXMA 10-20-17 Moisture Percent Harvest
7	XR NOZZLES							5DAH	B	99 a	99 a	99 a	65 a	12.9 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
8	XR NOZZLES							5DAH	B	99 a	99 a	99 a	62 a	12.5 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	B					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
9	XR NOZZLES							5DAH	B	96 a	96 a	99 a	57 a	12.7 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	B					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
10	XR NOZZLES							5DAH	B	96 a	96 a	99 a	64 a	12.5 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B					
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	B					
	TTI NOZZLES							3"W	C					
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C					
11	XR NOZZLES							5DAH	B	96 a	96 a	99 a	64 a	12.9 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B					
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	5DAH	B					
	XR NOZZLES							3"W	D					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D					
12	XR NOZZLES							5DAH	B	94 a	94 a	99 a	61 a	12.8 a
	GRAMOXONE SL 2.0	2	SL	0.625	lb ai/a	2.5	pt/a	5DAH	B					
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B					
	COC	100	SL	1	% v/v	1	% v/v	5DAH	B					
	XR NOZZLES							3"W	D					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D					
LSD P=.05										5.3	5.3	.	10.2	0.86
Standard Deviation										3.7	3.6	0.0	7.1	0.60
CV										3.82	3.8	0.0	12.06	4.72
Replicate F										1.612	1.573	0.000	4.686	0.504
Replicate Prob(F)										0.2074	0.2164	1.0000	0.0078	0.6824
Treatment F										1.267	1.279	0.000	13.855	0.306
Treatment Prob(F)										0.2919	0.2857	1.0000	0.0001	0.9796

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
	Pest Code										
	Crop Code									GLXMA	GLXMA
	Rating Date									10-20-17	10-20-17
	Rating Type									Test Weight	Weight
	Rating Unit									lb/bu	Pounds
	Rating Timing										
	Trt-Eval Interval									Harvest	Harvest
1	NONTREATED									54.3 a	2.7 b
2	TTI NOZZLES							5DAH	A	54.0 a	9.6 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A		
	TTI NOZZLES							3"W	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C		
3	TTI NOZZLES							5DAH	A	54.1 a	8.7 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A		
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A		
	TTI NOZZLES							3"W	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C		
4	TTI NOZZLES							5DAH	A	54.1 a	9.9 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A		
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	A		
	TTI NOZZLES							3"W	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C		
5	TTI NOZZLES							5DAH	A	54.1 a	10.0 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A		
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	A		
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	A		
	TTI NOZZLES							3"W	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C		
6	TTI NOZZLES							5DAH	A	54.2 a	9.4 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	5DAH	A		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	5DAH	A		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	A		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	A		
	TTI NOZZLES							3"W	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C		

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Missing data estimates are included in columns:Average=14,20
Could not calculate LSD (% mean diff) for columns 11,17,22,25,24 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 10-20-17 Test Weight lb/bu Harvest	GLXMA 10-20-17 Weight Pounds Harvest
	Pest Code										
	Crop Code										
	Rating Date										
	Rating Type										
	Rating Unit										
	Rating Timing										
	Trt-Eval Interval										
7	XR NOZZLES							5DAH	B	54.0 a	9.8 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B		
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B		
	TTI NOZZLES							3"W	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C		
8	XR NOZZLES							5DAH	B	54.2 a	9.3 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B		
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	5DAH	B		
	TTI NOZZLES							3"W	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C		
9	XR NOZZLES							5DAH	B	54.1 a	8.6 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	5DAH	B		
	TTI NOZZLES							3"W	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C		
10	XR NOZZLES							5DAH	B	54.2 a	9.6 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B		
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	5DAH	B		
	METRIBUZIN 75	75	WG	0.234	lb ai/a	5	oz/a	5DAH	B		
	TTI NOZZLES							3"W	C		
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	3"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	3"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	3"W	C		
11	XR NOZZLES							5DAH	B	53.9 a	9.7 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	5DAH	B		
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	5DAH	B		
	XR NOZZLES							3"W	D		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D		
12	XR NOZZLES							5DAH	B	54.0 a	9.2 a
	GRAMOXONE SL 2.0	2	SL	0.625	lb ai/a	2.5	pt/a	5DAH	B		
	AUTHORITY FIRST DF	70	WG	0.197	lb ai/a	4.5	oz/a	5DAH	B		
	COC	100	SL	1	% v/v	1	% v/v	5DAH	B		
	XR NOZZLES							3"W	D		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	3"W	D		
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	3"W	D		
	LSD P=.05									0.35	1.61
	Standard Deviation									0.25	1.12
	CV									0.45	12.6
	Replicate F									0.211	4.322
	Replicate Prob(F)									0.8882	0.0112
	Treatment F									0.690	12.743
	Treatment Prob(F)									0.7383	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=14,20
Could not calculate LSD (% mean diff) for columns 11,17,22,25,24 because error mean square = 0.

Xtend Double Crop Soybean.
Trial ID: 17-11A-E90-MON-B7-04 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Monsanto (2017-01-B7-04).
2. Ratings:
   CI 14 and 21 DA-A+B, CI 0 DA-C+D. Rate CI as total crop injury only.
   WC 14 and 21 DA-A+B, WC 0 DA-C+D, and WC at harvest.
   Rate before spray applications C+D.
3. Yield.
4. Photos not requested.
5. Applications A+B are 5DAH to be applied the same day, different nozzles.
   Applications C+D are 3"W to be applied the same day, different nozzles.
   Applications C+D are 3"W in any treatment and before R1 soybean stage.
6. Report application dates and GPS in ARM.
7. Harvest wheat crop at about 14 inches above the ground.
   Plant soybeans 2-3 days after harvest.
   Spray 5DAH applications 5 days after harvest.

Rainfall following application A+B was 0.03" over 1 day beginning 4 days after application; the first substantial rainfall following application A+B was 0.33" over 2 days beginning on 7/5, 16 days after application.

Rainfall following application C+D was 0.09" over 1 day beginning 4 days after application; the next rainfall event was 0.26" over 1 day, 7/16, 6 days after application.

CT AMBTR = AMBTR cut at wheat harvest.

CI symptoms were stunting in plot 104 and leaf crinkling in plot 201 at 17 DA-A+B.
CI 17 DA-A+B in treatments 6 and 9 was leaf crinkling and drawstringing, and stunting.

New soybean leaves in treatments 6 and 9 appeared to be healthy and growing out of the injury by the 0 DA-C+D (23 DA-A+B) rating.

Southern Illinois University

Xtend in Double Crop System.
Trial ID: 17-11A-W85-MON-B7-17 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 6-16-17
Completion Date: 7-21-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Upper Left: 38.51736 89.84146 **Upper Right:** 38.51737 89.84173
Latitude of LL Corner °: 38.51779 N **Lower Right:** 38.51781 89.84173
Longitude of LL Corner °: 89.84146 W USAIL 42.5083389 - 36.9702949
Altitude of LL Corner, Unit: 435.00 FT -87.0199279 - -91.5130844
Angle y-axis to North °: 180.00

Objectives:
Determine the effectiveness of dicamba in combination with other tankmix partners in the burndown or in-crop application in double crop soybeans.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: 39X7 **BBCH Scale:** BSOY
Description: RR2X **Maturity Group:** III
Planting Date: 6-16-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 75 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 2 Type: W **Code:** AMBEL Ambrosia artemisiifolia L.
Common Name: ragweed, common

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 4 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Pest 5 Type: W **Code:** TRZAX Triticum aestivum L.
Common Name: wheat, volunteer

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	TRZAW	2017

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	Fall: N 30 LB/A, P2O5 0 LB/A, K2O 0 LB/A
2.	FERT	Spring: N 85 LB/A, P205 0 LB/A, K20 0 LB/A

Soil Description

Description Name: 11A_2013
% OM: 2.9 **Texture:** SIL silt loam
pH: 6.8 **Soil Name:** Pierron
CEC: 9

Additional Measured Elements

Element	Quantity	Unit
P1	72	lb/A
K	345	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-6-17					7	DAY	43	87	F
2.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
3.	5-13-17					7	DAY	51	87	F
4.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
5.	5-20-17					7	DAY	50	80	F
6.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
7.	5-27-17					7	DAY	55	87	F
8.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
9.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
10.	6-3-17					7	DAY	54	89	F
11.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
12.	6-14-17	0.16	IN	RAIN	rain	1	DAY			
13.	6-15-17	0.94	IN	RAIN	rain	1	DAY			
14.	6-17-17					7	DAY	62	92	F
15.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
16.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
17.	6-24-17					7	DAY	53	91	F
18.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
19.	7-1-17					7	DAY	60	93	F
20.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
21.	7-8-17					7	DAY	67	98	F
22.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
23.	7-15-17					7	DAY	60	91	F
24.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
25.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
26.	7-22-17					7	DAY	69	99	F
27.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
28.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
29.	7-29-17					7	DAY	61	83	F
30.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
31.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
32.	8-5-17					7	DAY	55	87	F
33.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
34.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
35.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
36.	8-12-17					7	DAY	56	84	F
37.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
38.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
39.	8-19-17					7	DAY	56	94	F
40.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
41.	8-26-17					7	DAY	56	86	F
42.	8-28-17	0.08	IN	RAIN	rain	1	DAY			

Application Description

	A	B	C	D
Application Date:	6-19-17	6-19-17	6-27-17	6-27-17
Appl. Start Time:	9:20	9:20	12:30	12:30
Appl. Stop Time:	9:30	9:30	12:45	12:45
Interval to Prev. Appl., Unit:	HOURS	HOURS	8 DAYS	8 DAYS
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	PRE	2-4"W	2-4"W
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	RLS+MCG	RLS+MCG	MCG	MCG
Air Temperature, Unit:	81 F	81 F	77 F	77 F
% Relative Humidity:	44	44	42	42
Wind Velocity, Unit:	18 MPH	18 MPH	0 MPH	0 MPH
Wind Direction:	NW	NW		
Dew Presence (Y/N):	N	N	N	N
Soil Temperature, Unit:	73 F	73 F	69 F	69 F
Soil Moisture:	ABONOR	ABONOR	NORMAL	NORMAL
% Cloud Cover:	0	0	0	0
Next Moisture Occurred On:	6-23-17	6-23-17	6-30-17	6-30-17
Time to Next Moisture, Unit:	4 DAY	4 DAY	3 DAY	3 DAY

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	GLXMA	GLXMA	GLXMA	GLXMA
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	NA	VC	VC
Stage Minimum, Percent:			VE	VE
Stage Maximum, Percent:			VC	VC
Height, Unit:			2 IN	2 IN
Height Minimum, Maximum:			1 2	1 2

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	AMATA W	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	10	10	5	5
Stage Minimum, Percent:	COTY	COTY	COTY	COTY
Stage Maximum, Percent:	26	26	50+	50+
Height, Unit:	7 IN	7 IN	2 IN	2 IN
Height Minimum, Maximum:	0.2 14	0.2 14	0.2 13	0.2 13
Density, Unit:	5 FT2	5 FT2	2.5 FT2	2.5 FT2
Pest 2 Code, Type, Scale:	AMBEL W	AMBEL W	AMBEL W	AMBEL W
Stage Majority, Percent:	NA		10	10
Stage Minimum, Percent:			8	8
Stage Maximum, Percent:			32	32
Height, Unit:			4 IN	4 IN
Height Minimum, Maximum:			2 15	2 15
Density, Unit:			0.025 FT2	0.025 FT2
Pest 3 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	18	18	10	10
Stage Minimum, Percent:	COTY	COTY	COTY	COTY
Stage Maximum, Percent:	32	32	10	10
Height, Unit:	15 IN	15 IN	15 IN	15 IN
Height Minimum, Maximum:	0.3 33	0.3 33	0.3 19	0.3 19
Density, Unit:	1 FT2	1 FT2	0.3 FT2	0.3 FT2
Pest 4 Code, Type, Scale:	SETFA W	SETFA W	SETFA W	SETFA W
Pest 5 Code, Type, Scale:	TRZAX W	TRZAX W	TRZAX W	TRZAX W

Application Equipment

	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	TTI	XR	TTI	XR
Nozzle Size:	11002	8002	11002	8002
Nozzle Spacing, Unit:	20 IN	20 IN	20 IN	20 IN
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GLXMA 7-6-17 Injury 0-99 17 DA A+B	GLXMA 7-11-17 Injury 0-99 22 DA A+B	GLXMA 7-21-17 Injury 0-99 24 DA C+D	GLXMA 7-21-17 Injury 0-99 32 DA A+B	GLXMA 8-1-17 Injury 0-99 35 DA C+D
	Pest Code													
	Crop Code													
	Rating Date													
	Rating Type													
	Rating Unit													
	Rating Timing													
	Trt-Eval Interval													
1	XR NOZZLES							PRE	B	0 c	0 c		0 c	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	B					
2	TTI NOZZLES							PRE	A	0 c	0 c		0 c	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	A					
3	TTI NOZZLES							PRE	A	0 c	0 c		0 c	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A					
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A					
4	TTI NOZZLES							PRE	A	0 c	0 c		0 c	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	PRE	A					
5	TTI NOZZLES							PRE	A	0 c	0 c		0 c	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A					
6	TTI NOZZLES							PRE	A	27 b	17 a		3 ab	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	MON 76980	2.92	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
7	TTI NOZZLES							PRE	A	33 a	17 a		5 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	A					
8	XR NOZZLES							PRE	B	30 ab	12 b		1 bc	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	PRE	B					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	B					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	B					
9	XR NOZZLES							2-4"W	D			0 b		0 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	D					
10	TTI NOZZLES							2-4"W	C			0 b		0 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
Pest Code														
Crop Code										GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
Rating Date										7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
Rating Type										Injury	Injury	Injury	Injury	Injury
Rating Unit										0-99	0-99	0-99	0-99	0-99
Rating Timing														
Trt-Eval Interval										17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
11	TTI NOZZLES							2-4"W	C			3 a		0 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	C					
12	TTI NOZZLES							2-4"W	C			4 a		0 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT ULTRA	3.45	CS	1.35	lb ai/a	50	fl oz/a	2-4"W	C					
13	NONTREATED											0		0
LSD P=.05										6.2	4.7	2.2	3.0	.
Standard Deviation										3.6	2.7	1.1	1.7	0.0
CV										31.61	47.51	63.89	150.41	0.0
Replicate F										0.247	0.000	1.800	1.615	0.000
Replicate Prob(F)										0.7844	1.0000	0.2441	0.2338	1.0000
Treatment F										57.929	26.313	10.200	3.557	0.000
Treatment Prob(F)										0.0001	0.0001	0.0090	0.0207	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
	Crop Code													
	Rating Date									7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
1	XR NOZZLES							PRE	B	99 a	99 a		99 a	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	B					
2	TTI NOZZLES							PRE	A	99 a	99 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	A					
3	TTI NOZZLES							PRE	A	99 a	99 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A					
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A					
4	TTI NOZZLES							PRE	A	99 a	99 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	PRE	A					
5	TTI NOZZLES							PRE	A	99 a	99 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A					
6	TTI NOZZLES							PRE	A	99 a	98 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	MON 76980	2.92	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
7	TTI NOZZLES							PRE	A	99 a	99 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	A					
8	XR NOZZLES							PRE	B	99 a	99 a		99 a	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	PRE	B					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	B					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	B					
9	XR NOZZLES							2-4"W	D			99 a		99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	D					
10	TTI NOZZLES							2-4"W	C			99 a		99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMBEL	AMBEL	AMBEL	AMBEL	AMBEL
	Crop Code													
	Rating Date									7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
11	TTI NOZZLES							2-4"W	C			99 a		99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	C					
12	TTI NOZZLES							2-4"W	C			99 a		99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT ULTRA	3.45	CS	1.35	lb ai/a	50	fl oz/a	2-4"W	C					
13	NONTREATED											0		0
	LSD P=.05									.	0.7	.	.	.
	Standard Deviation									0.0	0.4	0.0	0.0	0.0
	CV									0.0	0.41	0.0	0.0	0.0
	Replicate F									0.000	1.000	0.000	0.000	0.000
	Replicate Prob(F)									1.0000	0.3927	1.0000	1.0000	1.0000
	Treatment F									0.000	1.000	0.000	0.000	0.000
	Treatment Prob(F)									1.0000	0.4706	1.0000	1.0000	1.0000

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Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMATA	AMATA	AMATA	AMATA	AMATA
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMATA
	Crop Code													
	Rating Date									7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
1	XR NOZZLES							PRE	B	89 a	86 a		82 b	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	B					
2	TTI NOZZLES							PRE	A	92 a	92 a		96 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	A					
3	TTI NOZZLES							PRE	A	95 a	94 a		92 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A					
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A					
4	TTI NOZZLES							PRE	A	99 a	97 a		97 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	PRE	A					
5	TTI NOZZLES							PRE	A	99 a	99 a		98 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A					
6	TTI NOZZLES							PRE	A	99 a	99 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	MON 76980	2.92	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
7	TTI NOZZLES							PRE	A	99 a	99 a		98 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	A					
8	XR NOZZLES							PRE	B	98 a	94 a		96 a	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	PRE	B					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	B					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	B					
9	XR NOZZLES							2-4"W	D			92 a		85 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	D					
10	TTI NOZZLES							2-4"W	C			97 a		91 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMATA	AMATA	AMATA	AMATA	AMATA
	Crop Code													
	Rating Date									7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
11	TTI NOZZLES							2-4"W	C			98 a		96 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	C					
12	TTI NOZZLES							2-4"W	C			98 a		94 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT ULTRA	3.45	CS	1.35	lb ai/a	50	fl oz/a	2-4"W	C					
13	NONTREATED											0		0
	LSD P=.05									11.3	10.6	6.1	8.9	13.4
	Standard Deviation									6.4	6.0	3.0	5.1	6.7
	CV									6.69	6.34	3.17	5.34	7.33
	Replicate F									0.782	1.526	1.577	1.089	1.133
	Replicate Prob(F)									0.4767	0.2515	0.2817	0.3633	0.3824
	Treatment F									1.013	1.675	2.964	3.788	1.569
	Treatment Prob(F)									0.4628	0.1949	0.1193	0.0163	0.2918

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMBTR 7-6-17 Control 0-99 17 DA A+B	AMBTR 7-11-17 Control 0-99 22 DA A+B	AMBTR 7-21-17 Control 0-99 24 DA C+D	AMBTR 7-21-17 Control 0-99 32 DA A+B	AMBTR 8-1-17 Control 0-99 35 DA C+D
1	XR NOZZLES							PRE	B	87 b	85 a		86 a	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	B					
2	TTI NOZZLES							PRE	A	96 a	96 a		98 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	A					
3	TTI NOZZLES							PRE	A	96 a	96 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A					
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A					
4	TTI NOZZLES							PRE	A	95 ab	96 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	PRE	A					
5	TTI NOZZLES							PRE	A	93 ab	93 a		96 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A					
6	TTI NOZZLES							PRE	A	97 a	97 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	MON 76980	2.92	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
7	TTI NOZZLES							PRE	A	95 ab	94 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	A					
8	XR NOZZLES							PRE	B	70 c	60 b		62 b	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	PRE	B					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	B					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	B					
9	XR NOZZLES							2-4"W	D			99 a		93 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	D					
10	TTI NOZZLES							2-4"W	C			99 a		96 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMBTR	AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code													
	Rating Date									7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
11	TTI NOZZLES							2-4"W	C			99 a		96 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	C					
12	TTI NOZZLES							2-4"W	C			99 a		99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT ULTRA	3.45	CS	1.35	lb ai/a	50	fl oz/a	2-4"W	C					
13	NONTREATED											0		0
	LSD P=.05									9.2	13.2	0.9	13.8	9.6
	Standard Deviation									5.3	7.5	0.4	7.9	4.8
	CV									5.77	8.4	0.45	8.57	5.03
	Replicate F									1.086	1.279	0.429	2.375	0.261
	Replicate Prob(F)									0.3644	0.3090	0.6699	0.1294	0.7786
	Treatment F									9.110	8.444	0.571	7.960	0.871
	Treatment Prob(F)									0.0003	0.0004	0.6542	0.0006	0.5061

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	CT AMBTR	CT AMBTR	CT AMBTR	CT AMBTR	CT AMBTR
	Pest Code									CT AMBTR	CT AMBTR	CT AMBTR	CT AMBTR	CT AMBTR
	Crop Code													
	Rating Date									7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
1	XR NOZZLES							PRE	B	35 a	35 a		96 a	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	B					
2	TTI NOZZLES							PRE	A	70 a	40 a		98 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	A					
3	TTI NOZZLES							PRE	A	97 a	95 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A					
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A					
4	TTI NOZZLES							PRE	A	99 a	99 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	PRE	A					
5	TTI NOZZLES							PRE	A	99 a	99 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A					
6	TTI NOZZLES							PRE	A	97 a	99 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	MON 76980	2.92	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
7	TTI NOZZLES							PRE	A	95 a	95 a		99 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	A					
8	XR NOZZLES							PRE	B	76 a	66 a		99 a	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	PRE	B					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	B					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	B					
9	XR NOZZLES							2-4"W	D			98 a		99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	D					
10	TTI NOZZLES							2-4"W	C			99 a		99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	CT AMBTR	CT AMBTR	CT AMBTR	CT AMBTR	CT AMBTR
	Pest Code									CT AMBTR	CT AMBTR	CT AMBTR	CT AMBTR	CT AMBTR
	Crop Code													
	Rating Date									7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
11	TTI NOZZLES							2-4"W	C			99 a		99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	C					
12	TTI NOZZLES							2-4"W	C			99 a		99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT ULTRA	3.45	CS	1.35	lb ai/a	50	fl oz/a	2-4"W	C					
13	NONTREATED											0		0
	LSD P=.05									44.4	56.4	1.0	3.2	.
	Standard Deviation									22.2	29.2	0.5	1.8	0.0
	CV									26.63	37.25	0.51	1.83	0.0
	Replicate F									0.321	0.410	1.000	1.702	0.000
	Replicate Prob(F)									0.7369	0.6785	0.4219	0.2179	1.0000
	Treatment F									3.087	2.667	3.000	1.022	0.000
	Treatment Prob(F)									0.0955	0.1095	0.1170	0.4578	1.0000

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Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									SETFA	SETFA	SETFA	SETFA	SETFA
	Crop Code													
	Rating Date									7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
1	XR NOZZLES							PRE	B	98 a	98 a		89 a	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	B					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	B					
2	TTI NOZZLES							PRE	A	91 a	91 a		91 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	A					
3	TTI NOZZLES							PRE	A	96 a	95 a		95 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A					
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A					
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A					
4	TTI NOZZLES							PRE	A	96 a	96 a		95 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	PRE	A					
5	TTI NOZZLES							PRE	A	96 a	95 a		93 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A					
6	TTI NOZZLES							PRE	A	98 a	98 a		95 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	MON 76980	2.92	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
7	TTI NOZZLES							PRE	A	95 a	95 a		97 a	
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	A					
8	XR NOZZLES							PRE	B	96 a	95 a		94 a	
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	PRE	B					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	B					
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	B					
9	XR NOZZLES							2-4"W	D			99 a		98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	D					
10	TTI NOZZLES							2-4"W	C			99 a		97 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					

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Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									SETFA	SETFA	SETFA	SETFA	SETFA
	Crop Code													
	Rating Date									7-6-17	7-11-17	7-21-17	7-21-17	8-1-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									17 DA A+B	22 DA A+B	24 DA C+D	32 DA A+B	35 DA C+D
11	TTI NOZZLES							2-4"W	C			98 a		98 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	C					
12	TTI NOZZLES							2-4"W	C			99 a		99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C					
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C					
	WARRANT ULTRA	3.45	CS	1.35	lb ai/a	50	fl oz/a	2-4"W	C					
13	NONTREATED											0		0
	LSD P=.05									7.9	7.9	1.0	11.7	2.4
	Standard Deviation									4.5	4.5	0.5	6.7	1.2
	CV									4.72	4.75	0.51	7.13	1.22
	Replicate F									0.186	0.372	2.333	2.529	1.615
	Replicate Prob(F)									0.8325	0.6958	0.1780	0.1154	0.2746
	Treatment F									0.662	0.645	2.667	0.509	1.462
	Treatment Prob(F)									0.7002	0.7129	0.1416	0.8130	0.3161

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Pest Code									TRZAX	TRZAX
Crop Code										
Rating Date									7-21-17	8-1-17
Rating Type									Control	Control
Rating Unit									0-99	0-99
Rating Timing										
Trt-Eval Interval									32 DA A+B	35 DA C+D
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	XR NOZZLES							PRE	B	84 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	B	
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	B	
2	TTI NOZZLES							PRE	A	70 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A	
	ROWEL	51	WG	0.064	lb ai/a	2	oz/a	PRE	A	
3	TTI NOZZLES							PRE	A	83 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A	
	ROWEL FX	40.3	WG			3.0	oz/a	PRE	A	
	ROWEL	51	WG	0.05625	lb ai/a			PRE	A	
	CLASSIC	25	WG	0.01931	lb ai/a			PRE	A	
4	TTI NOZZLES							PRE	A	65 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A	
	AUTHORITY MTZ	45	WG	0.394	lb ai/a	14	oz/a	PRE	A	
5	TTI NOZZLES							PRE	A	90 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A	
	FIERCE	76	WG	0.143	lb ai/a	3	oz/a	PRE	A	
6	TTI NOZZLES							PRE	A	89 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A	
	MON 76980	2.92	SL	0.5	lb ae/a	22	fl oz/a	PRE	A	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A	
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A	
7	TTI NOZZLES							PRE	A	95 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	PRE	A	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	PRE	A	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	PRE	A	
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	A	
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	A	
8	XR NOZZLES							PRE	B	95 a
	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	PRE	B	
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	PRE	B	
	TRICOR DF	75	WG	0.28	lb ai/a	6	oz/a	PRE	B	
9	XR NOZZLES							2-4"W	D	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	D	
10	TTI NOZZLES							2-4"W	C	98 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C	
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C	
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C	

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Missing data estimates are included in columns:Average=21,10,16
Could not calculate LSD (% mean diff) for columns 37,30,9,28,21,34,35 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
	Pest Code									TRZAX	TRZAX
	Crop Code										
	Rating Date									7-21-17	8-1-17
	Rating Type									Control	Control
	Rating Unit									0-99	0-99
	Rating Timing										
	Trt-Eval Interval									32 DA A+B	35 DA C+D
11	TTI NOZZLES							2-4"W	C		94 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C		
	WARRANT	3	CS	1.13	lb ai/a	48	fl oz/a	2-4"W	C		
12	TTI NOZZLES							2-4"W	C		99 a
	INTACT	100	SL	0.5	% v/v	0.5	% v/v	2-4"W	C		
	XTENDIMAX	2.9	SL	0.5	lb ae/a	22	fl oz/a	2-4"W	C		
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	2-4"W	C		
	WARRANT ULTRA	3.45	CS	1.35	lb ai/a	50	fl oz/a	2-4"W	C		
13	NONTREATED										0
	LSD P=.05									25.4	8.8
	Standard Deviation									10.8	4.4
	CV									12.85	4.53
	Replicate F									1.194	0.646
	Replicate Prob(F)									0.3107	0.5570
	Treatment F									2.090	0.700
	Treatment Prob(F)									0.1759	0.5853

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Missing data estimates are included in columns:Average=21,10,16
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Southern Illinois University

Xtend in Double Crop System.
Trial ID: 17-11A-W85-MON-B7-17 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Monsanto (2017-01-B7-17).
2. Ratings:
   CI 14, 21, and 35 DA-A+B (rate A+B only) and then 14, 21, and 35 DA-C+D (rate C+D only).
   WC 14, 21, and 35 DA-A+B (rate A+B only) and then 14, 21, and 35 DA-C+D (rate C+D only).
3. Yield not requested.
4. Photos at each rating that show treatment differences.
5. Applications A+B are PRE to be applied the same day, different nozzles.
   Applications C+D are 2-4"W to be applied the same day, different nozzles.
   Applications C+D are 2-4"W and before R1 soybean stage.
6. Report application dates and GPS in ARM.
7. SIU added the nontreated treatment 13, can be used as an extra plot just like the XXX's.
8. Harvest wheat crop at about 14 inches above the ground.
   Plant soybeans 2-3 days after harvest.
   Spray PRE applications 5 days after harvest.

Wheat harvested on 6-13-17

Rainfall was 0.03" over 1 day beginning 4 days after A+B application; the first substantial rainfall was 0.33" over 2 days beginning 16 days after A+B application.
Rainfall was 0.05" over 1 day beginning 3 days after C+D application; the first substantial rainfall was 0.33" over 2 days beginning 8 days after C+D application.

CT AMBTR = AMBTR cut at 14" during wheat harvest

There is no rating for 14 DA C+D

CI symtoms for treatments 6,7,8,11, and 12 include leaf crinkling, "drawstring" effect, and stunting.

Southern Illinois University

Double-Crop Rotation to Soybean after Quelex in Winter Wheat.
Trial ID: 17-ARC-24A-C017 Location: Carbondale, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 10-11-16
Completion Date: 7-3-17

Trial Location

City: Carbondale **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62901

Latitude of LL Corner °: 37.79605 N
Longitude of LL Corner °: 89.26215 W
Angle y-axis to North °: 270.00

Objectives:
Evaluate the effects of spring applied Quelex in winter wheat on double crop soybean planted into an abandoned wheat crop with 45 days between Quelex application and soybean planting.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: TRZAW Triticum aestivum (winter) Winter wheat
BBCH Scale: BCER
Planting Date: 10-11-16
Planting Method: DRILL
Planting Rate, Unit: 1.1 millionS/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Soil Temperature, Unit: 65 F
Soil Moisture: NORMAL

Crop 2: GLXMA Glycine max Soybean
Variety: AG 39X7
BBCH Scale: BSOY
Planting Date: 6-2-17
Planting Method: SEEDED
Planting Rate, Unit: 140000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 74 F
Soil Moisture: NORMAL

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	Fall: N 27 LB/A, P2O5 69 LB/A, K2O 0 LB/A
2.	FERT	Spring: N 114 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: ARC-24A_2010
% OM: 1.6 **Texture:** SIL silt loam
pH: 5.7 **Soil Name:** Weir
CEC: 8.8

Additional Measured Elements

Element	Quantity	Unit
P1	53	lb/A
K	283	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Carbondale IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	2-25-17					7	DAY	20	70	F
2.	2-28-17	0.95	IN	RAIN	rain	2	DAY			
3.	3-4-17					7	DAY	32	73	F
4.	3-6-17	0.5	IN	RAIN	rain	2	DAY			
5.	3-9-17	0.06	IN	RAIN	rain	2	DAY			
6.	3-11-17					7	DAY	17	59	F
7.	3-13-17	0.13	IN	RAIN	rain	1	DAY			
8.	3-18-17					7	DAY	28	75	F
9.	3-20-17	0.19	IN	RAIN	rain	2	DAY			
10.	3-23-17	0.43	IN	RAIN	rain	1	DAY			
11.	3-25-17					7	DAY	46	71	F
12.	3-25-17	0.12	IN	RAIN	rain	1	DAY			
13.	3-27-17	0.26	IN	RAIN	rain	1	DAY			
14.	3-30-17	0.66	IN	RAIN	rain	1	DAY			
15.	4-1-17					7	DAY	40	72	F
16.	4-3-17	0.47	IN	RAIN	rain	1	DAY			
17.	4-5-17	0.92	IN	RAIN	rain	1	DAY			
18.	4-6-17	0.06	IN	RAIN	rain	1	DAY			
19.	4-8-17					7	DAY	37	82	F
20.	4-10-17	0.09	IN	RAIN	rain	2	DAY			
21.	4-15-17					7	DAY	50	81	F
22.	4-16-17	0.85	IN	RAIN	rain	3	DAY			
23.	4-20-17	1.6	IN	RAIN	rain	3	DAY			
24.	4-22-17					7	DAY	41	77	F
25.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
26.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
27.	4-29-17					7	DAY	45	82	F
28.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
29.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
30.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
31.	5-6-17					7	DAY	42	83	F
32.	5-13-17					7	DAY	50	85	F
33.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
34.	5-20-17					7	DAY	51	84	F
35.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
36.	5-27-17					7	DAY	56	87	F
37.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
38.	6-3-17					7	DAY	54	87	F
39.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
40.	6-10-17					7	DAY	57	92	F
41.	6-15-17	0.13	IN	RAIN	rain	1	DAY			
42.	6-17-17					7	DAY	61	90	F
43.	6-22-17	0.22	IN	RAIN	rain	1	DAY			
44.	6-23-17	0.8	IN	RAIN	rain	1	DAY			
45.	6-24-17					7	DAY	54	87	F
46.	6-30-17	0.02	IN	RAIN	rain	1	DAY			
47.	7-1-17					7	DAY	63	88	F
48.	7-3-17	0.01	IN	RAIN	rain	1	DAY			

Application Description

	A
Application Date:	4-18-17
Appl. Start Time:	11:45
Appl. Stop Time:	12:15
Application Method:	Spray
Application Placement:	BROFOL
Applied By:	RLS
Air Temperature, Unit:	79 F
% Relative Humidity:	62
Wind Velocity, Unit:	3 MPH
Wind Direction:	SW
Dew Presence (Y/N):	N
Soil Temperature, Unit:	60 F
Soil Moisture:	ABONOR
% Cloud Cover:	50
Next Moisture Occurred On:	4-20-17
Time to Next Moisture, Unit:	48 HR

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	TRZAW
Stage Scale Used:	DESC
Stage Majority, Percent:	FK10.4
Stage Minimum, Percent:	FK10
Stage Maximum, Percent:	FK10
Height, Unit:	26 IN
Height Minimum, Maximum:	24 26
Crop 2 Code, BBCH Scale:	GLXMA
Stage Scale Used:	NA

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Double-Crop Rotation to Soybean after Quelex in Winter Wheat.
Trial ID: 17-ARC-24A-C017 Location: Carbondale, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code							
	Pest Code															
	Crop Code									TRZAW	TRZAW	TRZAW	GLXMA	GLXMA	GLXMA	GLXMA
	Rating Date									4-21-17	4-28-17	5-2-17	6-15-17	6-21-17	7-3-17	7-3-17
	Rating Type									Injury	Injury	Injury	Injury	Injury	Injury	Plants
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99	avg/A
	Rating Timing															
	Trt-Eval Interval									3 DA-A	10 DA-A	14 DA-A	58 DA-A	64 DA-A	76 DA-A	76 DA-A
1	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	APR17	A	0 a	0 b	0 a	0 a	0 a	0 a	78125 a
	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	APR17	A							
2	QUELEX	20	WG	0.0188	lb ai/a	1.5	oz/a	APR17	A	0 a	0 b	0 a	0 a	0 a	0 a	85439 a
	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	APR17	A							
3	QUELEX	20	WG	0.0375	lb ai/a	3	oz/a	APR17	A	0 a	0 b	0 a	0 a	0 a	1 a	84109 a
	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	APR17	A							
4	FINESSE	75	WG			0.5	oz/a	APR17	A	0 a	0 b	0 a	0 a	0 a	1 a	75466 a
	TELAR DF	75	WG	0.0195	lb ai/a			APR17	A							
	ALLY XP	60	WG	0.0039	lb ai/a			APR17	A							
	2,4-D LV 4	3.8	EC	0.3125	lb ae/a	0.66	pt/a	APR17	A							
	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	APR17	A							
5	FINESSE	75	WG			1	oz/a	APR17	A	0 a	0 b	0 a	0 a	0 a	0 a	76131 a
	TELAR DF	75	WG	0.039	lb ai/a			APR17	A							
	ALLY XP	60	WG	0.0078	lb ai/a			APR17	A							
	2,4-D LV 4	3.8	EC	0.625	lb ae/a	1.32	pt/a	APR17	A							
	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	APR17	A							
6	FINESSE	75	WG			2	oz/a	APR17	A	0 a	3 a	0 a	0 a	0 a	0 a	80452 a
	TELAR DF	75	WG	0.078	lb ai/a			APR17	A							
	ALLY XP	60	WG	0.0157	lb ai/a			APR17	A							
	2,4-D LV 4	3.8	EC	1.25	lb ae/a	2.63	pt/a	APR17	A							
	NIS (ACTIVATOR 90)	100	SL	0.5	% v/v	0.5	% v/v	APR17	A							
7	NONTREATED									0 a	0 b	0 a	0 a	0 a	1 a	78457 a
	LSD P=.05									.	1.6	.	.	.	1.2	13813.4
	Standard Deviation									0.0	1.1	0.0	0.0	0.0	0.8	9298.3
	CV									0.0	305.51	0.0	0.0	0.0	293.33	11.66
	Replicate F									0.000	1.000	0.000	0.000	0.000	0.407	4.436
	Replicate Prob(F)									1.0000	0.4155	1.0000	1.0000	1.0000	0.7500	0.0168
	Treatment F									0.000	3.000	0.000	0.000	0.000	0.525	0.676
	Treatment Prob(F)									1.0000	0.0327	1.0000	1.0000	1.0000	0.7817	0.6710

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,7,8,9 because error mean square = 0.

Southern Illinois University

Double-Crop Rotation to Soybean after Quelex in Winter Wheat.
Trial ID: 17-ARC-24A-C017 Location: Carbondale, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Dow (C017).
2. Ratings:
   Wheat; CI as chlorosis at 3 and 7 DA-A, CI as growth reduction at 14 DA-A.
   Wheat; WC rate broadleaf weeds if present at 14, 28, and 42 DA-A, but before wheat mow\harvest.
   Soybean; CI as visual injury at 7, 14, 28, 56 days after crop emergence.
   Soybean stand, count one meter of row twice in each of the 2 center rows (4 per plot) at about 30 DAP.
   Soybean heights maybe TBD.
3. Wheat yield not requested, mow or pseudo-harvest wheat early to get a 45 DA-A soybean planting.
   You can mow/harvest the wheat a week early, need not be mowed and planted the same day.
   Soybean yield if possible, but important, do not sell grain.
4. Blanket herbicide applications likely in soybean crop, TBD.
5. Photos not requested but maybe.
6. Soybeans should be a standard ALS-sensitive variety.

Wheat was not harvested. Wheat was sprayed with gramoxone on 5/23/17, 10 days prior to planting; soybeans were planted into the standing, dessicated wheat. (We were concerned that mowing the wheat would have created too much residue which may have interfered with soybean planting and establishment).

No broadleaf weeds were present with sufficient pressure to be rated.

Injury observed on 7/3 was very minor leaf crinkling and deformation; pictures available upon request.

Southern Illinois University
Spring Applied Quelex, Tank-Mixes, and Adjuvants Efficacy on Broadleaf Weeds in Winter Wheat.
Trial ID: 17-ARC-24B-C018 Location: Agronomy Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.
Official Trial ID:
Conducted Under GEP: No

Trial Status: F one-year/final
Initiation Date: 10-11-16
Completion Date: 5-24-17

Trial Location

City: Carbondale **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62901

Objectives:
How does Quelex (GF-3313) comapre to commercial standards/mixtures for control of common broadleaf weeds in winter wheat with a spring application? Are the treatment safe for the crop (TRZAW)?

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: TRZAW Triticum aestivum (winter) Winter wheat
Variety: P25R46 **BBCH Scale:** BCER
Planting Date: 10-11-16
Planting Method: SEEDED
Planting Rate, Unit: 1.1 millionS/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Soil Temperature, Unit: 65 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** RANAB Ranunculus abortivus L.
Common Name: buttercup, smallflower

Pest 2 Type: W **Code:** SENGL Senecio glabellus Poir.
Common Name: groundsel, cressleaf

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 6 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMX	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	Fall: N 27 LB/A, P2O5 69 LB/A, K2O 0 LB/A
2.	MAINT	Spring: N 114 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: ARC24B
% OM: 1.7 **Texture:** SIL silt loam
pH: 6.3 **Soil Name:** Weir
CEC: 9

Additional Measured Elements

Element	Quantity	Unit
P1	74	lb/A
K	224	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Carbondale IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	2-25-17					7	DAY	20	70	F
2.	2-28-17	0.95	IN	RAIN	rain	2	DAY			
3.	3-4-17					7	DAY	32	73	F
4.	3-6-17	0.5	IN	RAIN	rain	2	DAY			
5.	3-9-17	0.06	IN	RAIN	rain	2	DAY			
6.	3-11-17					7	DAY	17	59	F
7.	3-13-17	0.13	IN	RAIN	rain	1	DAY			
8.	3-18-17					7	DAY	28	75	F
9.	3-20-17	0.19	IN	RAIN	rain	2	DAY			
10.	3-23-17	0.43	IN	RAIN	rain	1	DAY			
11.	3-25-17					7	DAY	46	71	F
12.	3-25-17	0.12	IN	RAIN	rain	1	DAY			
13.	3-27-17	0.26	IN	RAIN	rain	1	DAY			
14.	3-30-17	0.66	IN	RAIN	rain	1	DAY			
15.	4-1-17					7	DAY	40	72	F
16.	4-3-17	0.47	IN	RAIN	rain	1	DAY			
17.	4-5-17	0.92	IN	RAIN	rain	1	DAY			
18.	4-6-17	0.06	IN	RAIN	rain	1	DAY			
19.	4-8-17					7	DAY	37	82	F
20.	4-10-17	0.09	IN	RAIN	rain	2	DAY			
21.	4-15-17					7	DAY	50	81	F
22.	4-16-17	0.85	IN	RAIN	rain	3	DAY			
23.	4-20-17	1.6	IN	RAIN	rain	3	DAY			
24.	4-22-17					7	DAY	41	77	F
25.	4-26-17	1.45	IN	RAIN	rain	1	DAY			
26.	4-27-17	0.61	IN	RAIN	rain	2	DAY			
27.	4-29-17					7	DAY	45	82	F
28.	4-29-17	4.77	IN	RAIN	rain	1	DAY			
29.	4-30-17	2.42	IN	RAIN	rain	1	DAY			
30.	5-3-17	1.04	IN	RAIN	rain	2	DAY			
31.	5-6-17					7	DAY	42	83	F
32.	5-13-17					7	DAY	50	85	F
33.	5-18-17	0.04	IN	RAIN	rain	1	DAY			
34.	5-20-17					7	DAY	51	84	F
35.	5-20-17	1.61	IN	RAIN	rain	1	DAY			
36.	5-27-17					7	DAY	56	87	F
37.	5-27-17	0.63	IN	RAIN	rain	1	DAY			
38.	6-3-17					7	DAY	54	87	F
39.	6-4-17	1.24	IN	RAIN	rain	2	DAY			
40.	6-10-17					7	DAY	57	92	F
41.	6-15-17	0.13	IN	RAIN	rain	1	DAY			
42.	6-17-17					7	DAY	61	90	F
43.	6-22-17	0.22	IN	RAIN	rain	1	DAY			

Application Description

	A
Application Date:	4-4-17
Appl. Start Time:	13:00
Appl. Stop Time:	14:00
Application Method:	Spray
Application Timing:	2-4"W
Application Placement:	BROFOL
Applied By:	MCG
Air Temperature, Unit:	71 F
% Relative Humidity:	57
Wind Velocity, Unit:	4 MPH
Wind Direction:	W
Dew Presence (Y/N):	N
Soil Temperature, Unit:	61 F
Soil Moisture:	AN
% Cloud Cover:	25
Next Moisture Occurred On:	4-5-17
Time to Next Moisture, Unit:	12 HR

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	TRZAW
Stage Scale Used:	DESC
Stage Majority, Percent:	FK7
Stage Minimum, Percent:	FK7
Stage Maximum, Percent:	FK8
Height, Unit:	14 IN
Height Minimum, Maximum:	13.5 16.5

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	RANAB W
Stage Majority, Percent:	2
Stage Minimum, Percent:	2
Stage Maximum, Percent:	2
Height, Unit:	1 IN
Height Minimum, Maximum:	1 3
Density, Unit:	0.5 FT2
Pest 2 Code, Type, Scale:	SENGL W
Stage Majority, Percent:	5
Stage Minimum, Percent:	2
Stage Maximum, Percent:	5
Height, Unit:	2 IN
Height Minimum, Maximum:	1 2
Density, Unit:	0.01 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Spring Applied Quelex, Tank-Mixes, and Adjuvants Efficacy on Broadleaf Weeds in Winter Wheat.

Trial ID: 17-ARC-24B-C018 Location: Agronomy Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Official Trial ID:

Conducted Under GEP: No

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code												RANAB	RANAB	RANAB
	Crop Code									GLXMA	GLXMA	GLXMA			
	Rating Date									4-11-17	4-18-17	5-24-17	4-18-17	5-2-17	5-24-17
	Rating Type									Injury	Injury	Injury	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									7 DA-A	14 DA-A	50 DA-A	14 DA-A	28 DA-A	50 DA-A
1	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A	0 b	0 b	0 a	63 ab	99 a	98 ab
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"BL	A						
2	UAN AS CARRIER							2-4"BL	A	5 a	2 a	0 a	80 a	99 a	99 a
	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A						
	28% UAN	100	SL	15	gal/a	100	% v/v	2-4"BL	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"BL	A						
3	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A	0 b	0 b	0 a	55 ab	99 a	98 ab
	2,4-D LV 4	3.8	EC	0.312	lb ae/a	10.5	fl oz/a	2-4"BL	A						
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"BL	A						
4	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A	0 b	0 b	0 a	67 ab	99 a	99 a
	2,4-D LV 4	3.8	EC	0.312	lb ae/a	10.5	fl oz/a	2-4"BL	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"BL	A						
5	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"BL	A	0 b	0 b	0 a	63 ab	96 a	95 bc
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"BL	A						
	EXPRESS	50	SG	.007813	lb ai/a			2-4"BL	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"BL	A						
6	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"BL	A	0 b	0 b	0 a	10 c	98 a	98 ab
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"BL	A						
	EXPRESS	50	SG	.007813	lb ai/a			2-4"BL	A						
	2,4-D LV 4	3.8	EC	0.312	lb ae/a	10.5	fl oz/a	2-4"BL	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"BL	A						
7	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"BL	A	0 b	0 b	0 a	50 b	94 a	92 c
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"BL	A						
	AMS	100	SG	1.5	lb/a	1.5	lb/a	2-4"BL	A						
8	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"BL	A	0 b	0 b	0 a	65 ab	99 a	98 ab
	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A						
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"BL	A						
	AMS	100	SG	1.5	lb/a	1.5	lb/a	2-4"BL	A						
9	NONTREATED									0 b	0 b	0 a	0	0	0
	LSD P=.05									.	0.3	.	27.4	3.6	4.5
	Standard Deviation									0.0	0.3	0.0	20.1	3.1	3.8
	CV									0.0	146.97	0.0	35.53	3.12	3.91
	Replicate F									0.000	1.000	0.000	0.684	1.794	1.304
	Replicate Prob(F)									1.0000	0.4302	1.0000	0.6508	0.1414	0.2847
	Treatment F									0.000	25.000	0.000	6.406	2.020	2.493
	Treatment Prob(F)									1.0000	0.0001	1.0000	0.0128	0.0821	0.0346

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=7,9,8
Could not calculate LSD (% mean diff) for columns 5,13 because error mean square = 0.

Pest Code									SENGL	SENGL	SENGL
Crop Code											
Rating Date									4-18-17	5-2-17	5-24-17
Rating Type									Control	Control	Control
Rating Unit									0-99	0-99	0-99
Rating Timing											
Trt-Eval Interval									14 DA-A	28 DA-A	50 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A	38 b	94 bc	96 a
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"BL	A			
2	UAN AS CARRIER							2-4"BL	A	63 a	95 ab	98 a
	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A			
	28% UAN	100	SL	15	gal/a	100	% v/v	2-4"BL	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"BL	A			
3	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A	50 ab	96 ab	98 a
	2,4-D LV 4	3.8	EC	0.312	lb ae/a	10.5	fl oz/a	2-4"BL	A			
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"BL	A			
4	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A	45 ab	96 ab	98 a
	2,4-D LV 4	3.8	EC	0.312	lb ae/a	10.5	fl oz/a	2-4"BL	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"BL	A			
5	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"BL	A	14 cd	90 cd	98 a
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"BL	A			
	EXPRESS	50	SG	.007813	lb ai/a			2-4"BL	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"BL	A			
6	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"BL	A	32 bc	98 ab	99 a
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"BL	A			
	EXPRESS	50	SG	.007813	lb ai/a			2-4"BL	A			
	2,4-D LV 4	3.8	EC	0.312	lb ae/a	10.5	fl oz/a	2-4"BL	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"BL	A			
7	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"BL	A	2 d	87 d	99 a
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"BL	A			
	AMS	100	SG	1.5	lb/a	1.5	lb/a	2-4"BL	A			
8	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"BL	A	37 b	99 a	99 a
	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"BL	A			
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"BL	A			
	AMS	100	SG	1.5	lb/a	1.5	lb/a	2-4"BL	A			
9	NONTREATED									0	0	0
LSD P=.05										22.4	4.3	2.0
Standard Deviation										18.3	3.7	1.7
CV										52.39	3.94	1.7
Replicate F										0.573	6.617	4.623
Replicate Prob(F)										0.7198	0.0002	0.0024
Treatment F										6.713	7.012	2.088
Treatment Prob(F)										0.0008	0.0001	0.0710

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=7,9,8
Could not calculate LSD (% mean diff) for columns 5,13 because error mean square = 0.

Southern Illinois University
Spring Applied Quelex, Tank-Mixes, and Adjuvants Efficacy on Broadleaf Weeds in Winter Wheat.
Trial ID: 17-ARC-24B-C018 Location: Agronomy Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.
Official Trial ID:
Conducted Under GEP: No

Trial Comments

1. Protocil: Dow (C018).
2. Ratings:
   CI as overall injury at 7 and 14 DA-A; Describe any epinasty if part of CI rating.
   WC at 14, 28, and 42-56 DA-A;
   Head deformity at 42-56 DA-A as overall percentage per plot, considering severity and frequency of curved heads, failure to emerge from boot, and sterility.
3. Yield not requested, okay to sell grain.
4. Spring fertilizer was applied as UAN at 32 gal/acre.
5. Remove grass weeds (if needed) with Axial XP or other graminicide 7 days before or after application of broadleaf weed treatments.
   No ALS herbicides for grassy weed control.
6. Application A, 2-4"W = broadleaf weeds at 2-4 inch and wheat at least 2 leaf
7. Target SENGL, ERICA, LAMAM, LAMPU, and other BL weeds..
   SENGL rating is a must, even if it requires flagging individual plants prior to application, or moving plots into areas of greater SENGL pressure.

Weed control was difficult to determine at the early rating due to the lack of weed pressure in the check strips; at the later ratings the pressure was more uniform and the reliability of the ratings increased.

There were a small number of heads throughout the field which were curved or failed to emerge from boot; however, this occurance was uniform across the field, including in the non-treated plots (less than 1%).

Crop injury was leaf-tip burning.

Rainfall was 0.98" over 2 days following application, begining 12 hours after application.

Southern Illinois University

Wild Garlic Control with Quelex Tank-Mixes in a Spring Application Compared to Competitive Standards in Winter Wheat.

Trial ID: 17-ARC-24C-C019 Location: Agronomy Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 10-11-16

Trial Location

City: Carbondale **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62901

Objectives:
What is the efficacy of Quelex (GF-3313) alone and in a tank mix with a reduced rate of Harmony Extra and a commercial standard on wild garlic (ALLVI) in winter wheat when applied in the spring?

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: TRZAW Triticum aestivum (winter) Winter wheat
Variety: P25R46 **BBCH Scale:** BCER
Description: _____
Planting Date: 10-11-16
Planting Method: SEEDED
Planting Rate, Unit: 1.1 millionS/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN

Pest Description

Pest 1 Type: W **Code:** ALLVI Allium vineale L.
Common Name: garlic, wild

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMX	2016

Maintenance

No.	Type	Maintenance Product Name
1.	MAINT	Fall: N 27 LB/A, P2O5 69 LB/A, K2O 0 LB/A
2.	MAINT	Spring: N 114 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: ARC24C
% OM: 1.6 **Texture:** SIL silt loam
pH: 6.3 **Soil Name:** Weir
CEC: 7.4

Additional Measured Elements

Element	Quantity	Unit
P1	88	lb/A
K	275	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Carbondale IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	9-30-16					7	DAY	51	85	F
2.	10-7-16					7	DAY	41	80	F
3.	10-12-16	0.15	IN	RAIN	rain	3	DAY			
4.	10-14-16					7	DAY	42	85	F

5.	10-19-16	0.38	IN	RAIN	rain	2	DAY			
6.	10-21-16					7	DAY	35	76	F
7.	10-26-16	0.25	IN	RAIN	rain	1	DAY			
8.	10-28-16					7	DAY	42	82	F
9.	11-4-16					7	DAY	29	71	F
10.	11-11-16					7	DAY	24	77	F
11.	11-14-16	0.11	IN	RAIN	rain	1	DAY			
12.	11-18-16	0.35	IN	RAIN	rain	1	DAY			
13.	11-18-16					7	DAY	23	73	F
14.	11-22-16	0.94	IN	RAIN	rain	2	DAY			
15.	11-25-16					7	DAY	27	58	F
16.	11-28-16	1.81	IN	RAIN	rain	1	DAY			
17.	12-2-16					7	DAY	22	49	F
18.	12-4-16	0.48	IN	RAIN	rain	2	DAY			
19.	12-9-16					7	DAY	15	44	F
20.	12-11-16	0.25	IN	RAIN	rain	1	DAY			
21.	12-16-16	0.11	IN	RAIN	rain	2	DAY			
22.	12-16-16					7	DAY	6	65	F
23.	12-23-16	0.55	IN	RAIN	rain	6	DAY			
24.	12-23-16					7	DAY	23	69	F
25.	1-2-17	0.32	IN	RAIN	rain	4	DAY			
26.	1-6-17					7	DAY	1	66	F
27.	1-10-17	2.02	IN	RAIN	rain	7	DAY			
28.	1-13-17					7	DAY	30	62	F
29.	1-19-17	0.17	IN	RAIN	rain	1	DAY			
30.	1-20-17					7	DAY	31	68	F
31.	1-27-17					7	DAY	22	53	F
32.	2-3-17					7	DAY	12	73	F
33.	2-6-17	0.25	IN	RAIN	rain	2	DAY			
34.	2-10-17					7	DAY	23	68	F
35.	2-11-17	0.02	IN	RAIN	rain	1	DAY			
36.	2-17-17					7	DAY	40	73	F
37.	2-18-17	0.22	IN	RAIN	rain	1	DAY			
38.	2-24-17	0.25	IN	RAIN	rain	1	DAY			
39.	2-24-17					7	DAY	20	70	F
40.	2-27-17	0.91	IN	RAIN	rain	1	DAY			
41.	3-3-17					7	DAY	28	73	F
42.	3-6-17	1.68	IN	RAIN	rain	4	DAY			
43.	3-10-17					7	DAY	17	46	F
44.	3-13-17	0.15	IN	RAIN	rain	1	DAY			
45.	3-17-17					7	DAY	28	75	F
46.	3-20-17	1.49	IN	RAIN	rain	11	DAY			
47.	3-24-17					7	DAY	46	72	F
48.	3-31-17					7	DAY	40	72	F
49.	4-3-17	1.41	IN	RAIN	rain	4	DAY			
50.	4-7-17					7	DAY	37	80	F
51.	4-10-17	0.29	IN	RAIN	rain	2	DAY			
52.	4-14-17					7	DAY	56	82	F
53.	4-16-17	0.43	IN	RAIN	rain	2	DAY			
54.	4-21-17	1.35	IN	RAIN	rain	2	DAY			
55.	4-21-17					7	DAY	41	77	F
56.	4-26-17	1.65	IN	RAIN	rain	1	DAY			
57.	4-27-17	0.09	IN	RAIN	rain	1	DAY			
58.	4-28-17	1.21	IN	RAIN	rain	1	DAY			
59.	4-28-17					7	DAY	45	82	F
60.	4-29-17	5.29	IN	RAIN	rain	1	DAY			
61.	4-30-17	2.33	IN	RAIN	rain	1	DAY			
62.	5-3-17	1.42	IN	RAIN	rain	2	DAY			
63.	5-5-17					7	DAY	42	83	F
64.	5-11-17	0.18	IN	RAIN	rain	1	DAY			
65.	5-12-17					7	DAY	50	85	F

66.	5-18-17	2.39	IN	RAIN	rain	3	DAY			
67.	5-20-17					7	DAY	51	84	F
68.	5-24-17	0.03	IN	RAIN	rain	1	DAY			
69.	5-27-17	0.78	IN	RAIN	rain	1	DAY			
70.	5-27-17					7	DAY	56	87	F
71.	6-3-17					7	DAY	54	87	F
72.	6-4-17	0.54	IN	RAIN	rain	1	DAY			
73.	6-5-17	0.02	IN	RAIN	rain	1	DAY			
74.	6-10-17					7	DAY	57	92	F
75.	6-15-17	0.07	IN	RAIN	rain	1	DAY			
76.	6-17-17					7	DAY	61	90	F
77.	6-18-17	0.71	IN	RAIN	rain	1	DAY			

Application Description

	A
Application Date:	3-29-17
Appl. Start Time:	17:35
Appl. Stop Time:	18:15
Application Method:	Spray
Application Timing:	2-4"WG
Application Placement:	BROFOL
Applied By:	MCG
Air Temperature, Unit:	71 F
% Relative Humidity:	66
Wind Velocity, Unit:	4.5 MPH
Wind Direction:	SE
Dew Presence (Y/N):	N
Soil Temperature, Unit:	60 F
Soil Moisture:	ABONOR
% Cloud Cover:	50
Next Moisture Occurred On:	3-30-17
Time to Next Moisture, Unit:	6 HR

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	TRZAW
Stage Scale Used:	DESC
Stage Majority, Percent:	FK7
Stage Minimum, Percent:	FK6
Stage Maximum, Percent:	FK7
Height, Unit:	12 IN
Height Minimum, Maximum:	10 15

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	ALLVI W
Stage Majority, Percent:	2
Stage Minimum, Percent:	1
Stage Maximum, Percent:	3
Height, Unit:	8 IN
Height Minimum, Maximum:	3 14
Density, Unit:	20 FT2

Application Equipment

	A
Appl. Equipment:	CO2 sprayer
Equipment Type:	BACSPR
Operation Pressure, Unit:	30 PSI
Nozzle Type:	XR
Nozzle Size:	8002
Boom Length, Unit:	6.67 FT
Spray Volume, Unit:	15 GPA

Southern Illinois University

Wild Garlic Control with Quelex Tank-Mixes in a Spring Application Compared to Competitive Standards in Winter Wheat.

Trial ID: 17-ARC-24C-C019 Location: Agronomy Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									TRZAW	TRZAW	TRZAW	TRZAW	TRZAW
	Crop Code									TRZAW	TRZAW	TRZAW	TRZAW	TRZAW
	Rating Date									4-1-17	4-5-17	4-12-17	4-26-17	5-24-17
	Rating Type									Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									3 DA-A	7 DA-A	14 DA-A	28 DA-A	56 DA-A
1	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
2	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	AGRIDEX	100	SL	0.5	% v/v	0.5	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
3	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
4	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	AGRIDEX	100	SL	0.5	% v/v	0.5	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
5	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
6	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
7	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A					
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
8	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A					
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
9	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	.007813	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
10	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"WG	A					
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	.007813	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
11	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6,7,9,12,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code													
	Crop Code									TRZAW	TRZAW	TRZAW	TRZAW	TRZAW
	Rating Date									4-1-17	4-5-17	4-12-17	4-26-17	5-24-17
	Rating Type									Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									3 DA-A	7 DA-A	14 DA-A	28 DA-A	56 DA-A
12	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
13	NONTREATED									0	1	0	0	0
14	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A	0 a	1 a	0 a	0 a	0 a
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
	LSD P=.05									.	.	.	.	.
	Standard Deviation									0.0	0.0	0.0	0.0	0.0
	CV									0.0	0.0	0.0	0.0	0.0
	Replicate F									0.000	0.000	0.000	0.000	0.000
	Replicate Prob(F)									1.0000	1.0000	1.0000	1.0000	1.0000
	Treatment F									0.000	0.000	0.000	0.000	0.000
	Treatment Prob(F)									1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6,7,9,12,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code										ALLVI	ALLVI	ALLVI	ANNBR
	Crop Code									TRZAW				
	Rating Date									5-24-17	4-12-17	4-26-17	5-24-17	4-26-17
	Rating Type									Delay Matur	Control	Control	Control	Control
	Rating Unit									Percent	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									56 DA-A	14 DA-A	28 DA-A	56 DA-A	28 DA-A
1	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	55 cd	69 cd	99 a	63 bc
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
2	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	55 cd	85 ab	96 a	74 ab
	AGRIDEX	100	SL	0.5	% v/v	0.5	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
3	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	70 a	84 ab	99 a	81 a
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
4	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	71 a	88 a	99 a	86 a
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	AGRIDEX	100	SL	0.5	% v/v	0.5	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
5	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A	0 a	43 e	80 ab	99 a	76 a
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
6	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A	0 a	70 a	88 a	99 a	85 a
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
7	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	65 abc	78 bc	98 a	79 a
	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A					
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
8	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	68 ab	81 ab	98 a	80 a
	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A					
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
9	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"WG	A	0 a	48 de	64 d	99 a	55 c
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	.007813	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
10	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	0 a	61 abc	86 ab	98 a	85 a
	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"WG	A					
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	.007813	lb ai/a			2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
11	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"WG	A	0 a	44 e	78 bc	99 a	76 a
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					

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Could not calculate LSD (% mean diff) for columns 5,6,7,9,12,14 because error mean square = 0.

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code										ALLVI	ALLVI	ALLVI	ANNBR
	Crop Code									TRZAW				
	Rating Date									5-24-17	4-12-17	4-26-17	5-24-17	4-26-17
	Rating Type									Delay Matur	Control	Control	Control	Control
	Rating Unit									Percent	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									56 DA-A	14 DA-A	28 DA-A	56 DA-A	28 DA-A
12	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"WG	A	0 a	55 cd	78 bc	99 a	79 a
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
13	NONTREATED									0	0	0	0	0
14	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A	0 a	58 bcd	84 ab	99 a	84 a
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A					
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A					
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A					
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A					
	LSD P=.05									.	10.1	8.9	2.3	12.8
	Standard Deviation									0.0	7.0	6.2	1.6	8.9
	CV									0.0	12.03	7.77	1.6	11.54
	Replicate F									0.000	0.811	3.417	0.215	0.947
	Replicate Prob(F)									1.0000	0.4962	0.0275	0.8855	0.4280
	Treatment F									0.000	7.998	5.310	1.421	4.202
	Treatment Prob(F)									1.0000	0.0001	0.0001	0.2015	0.0004

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Could not calculate LSD (% mean diff) for columns 5,6,7,9,12,14 because error mean square = 0.

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval									TRZAW 6-20-17 Weight lb/plot 83 DA-A	TRZAW 6-20-17 Moisture Percent 83 DA-A	TRZAW 6-20-17 Test Weight lb/bu 83 DA-A	TRZAW 6-20-17 Yield bu/A 83 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
1	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	13.1 a	10.6 a	51.4 a	65.4 a
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
2	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	12.9 a	10.7 a	51.4 a	64.5 a
	AGRIDEX	100	SL	0.5	% v/v	0.5	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				
3	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	12.7 a	10.6 a	51.7 a	63.5 a
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A				
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
4	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	13.2 a	10.5 a	51.8 a	66.0 a
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A				
	AGRIDEX	100	SL	0.5	% v/v	0.5	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				
5	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A	13.5 a	11.5 a	52.3 a	66.8 a
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A				
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A				
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				
6	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A	13.4 a	10.5 a	51.6 a	67.0 a
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A				
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A				
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				
7	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	13.3 a	10.6 a	51.5 a	66.6 a
	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A				
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A				
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A				
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
8	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	13.7 a	10.9 a	51.3 a	68.3 a
	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A				
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A				
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A				
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				
9	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"WG	A	12.9 a	10.7 a	51.9 a	64.3 a
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"WG	A				
	EXPRESS	50	SG	.007813	lb ai/a			2-4"WG	A				
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				
10	QUELEX	20	WG	0.0094	lb ai/a	0.75	oz/a	2-4"WG	A	13.5 a	10.8 a	51.5 a	67.2 a
	HARMONY EXTRA SG	50	SG			0.75	oz/a	2-4"WG	A				
	HARMONY SG	50	SG	0.01563	lb ai/a			2-4"WG	A				
	EXPRESS	50	SG	.007813	lb ai/a			2-4"WG	A				
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				
11	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"WG	A	13.0 a	10.4 a	51.4 a	65.0 a
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6,7,9,12,14 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
	Pest Code												
	Crop Code									TRZAW	TRZAW	TRZAW	TRZAW
	Rating Date									6-20-17	6-20-17	6-20-17	6-20-17
	Rating Type									Weight	Moisture	Test Weight	Yield
	Rating Unit									lb/plot	Percent	lb/bu	bu/A
	Rating Timing												
	Trt-Eval Interval									83 DA-A	83 DA-A	83 DA-A	83 DA-A
12	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	2-4"WG	A	12.9 a	11.0 a	50.7 a	64.2 a
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A				
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				
13	NONTREATED									12.9 a	10.8 a	52.2 a	64.1 a
14	HARMONY EXTRA SG	50	SG			0.5	oz/a	2-4"WG	A	13.7 a	10.5 a	51.8 a	68.6 a
	HARMONY SG	50	SG	0.01042	lb ai/a			2-4"WG	A				
	EXPRESS	50	SG	0.00521	lb ai/a			2-4"WG	A				
	2,4-D LV 6	5.6	SL	0.35	lb ae/a	8	fl oz/a	2-4"WG	A				
	AGRIDEX	100	SL	1	% v/v	1	% v/v	2-4"WG	A				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"WG	A				
	LSD P=.05									1.41	0.69	0.98	7.17
	Standard Deviation									0.99	0.48	0.68	5.01
	CV									7.49	4.51	1.32	7.62
	Replicate F									3.775	0.417	5.659	3.742
	Replicate Prob(F)									0.0180	0.7417	0.0026	0.0187
	Treatment F									0.457	1.304	1.307	0.426
	Treatment Prob(F)									0.9355	0.2520	0.2504	0.9503

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Could not calculate LSD (% mean diff) for columns 5,6,7,9,12,14 because error mean square = 0.

Southern Illinois University

Wild Garlic Control with Quelex Tank-Mixes in a Spring Application Compared to Competitive Standards in Winter Wheat.

Trial ID: 17-ARC-24C-C019 Location: Agronomy Res. Center Trial Year: 2017

Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Dow (NA17D2C019).
2. Ratings:
   CI as visual chlorosis at 3 DA-A;
   growth inhibition, chlorosis, malformation and/or reduction in head size or fill at 7, 14, 28 and 42 to 56 DA-A.
   Delayed maturity, record date of 100% wheat maturity for each plot or percentage of mature heads when nontreated plots are about 80% mature.
   WC wild garlic and other winter annuals, at 14, 28 and 42 to 56 DA-A.
   Count and biomass aerial bulblets from (2) 0.5 m2 quads per plot at wheat harvest, record fresh and dry weight. Quads can be combined in the field.
3. Yield, grain can be sold.
4. No spring fertilizer if possible.
5. Blanket application of Axial to eliminate Lolium grass pressure, only if needed.
6. Application A, 2-4"WG = Spring application on wild garlic that has 2-4 inches of new growth in the spring but is less than 12 inches in height, apply to wheat from 3 leaf to jointing.

Wheat was fertilized in the spring at 114 lb N/acre.

CI 7 DA-A was necrosis of leaf tips, incidence was very low, less than 1% in any plot; injury also observed in non-treated plots.

No delayed maturity or differences in visual grain or head formation observed.

ALLVI control was greater than 95% in all plots, with most having control at 99%; there we no arial bulblets present at any time in this field.

Southern Illinois University

Weed Control in No-Till Winter Wheat.
Trial ID: 17-11A Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 10-18-16
Completion Date: 6-13-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.517205 N
Longitude of LL Corner °: 89.84123 W

Objectives:
To evaluate control of winter annual grasses and broadleaf weeds in no-till winter wheat.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: TRZAW Triticum aestivum (winter) Winter wheat
Variety: P25R46 **BBCH Scale:** BCER
Description: _____

Planting Date: 10-18-16
Planting Method: SEEDED

Planting Rate, Unit: 1.5 millionS/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Soil Temperature, Unit: 69 F

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida L.
Common Name: ragweed, giant

Pest 2 Type: W **Code:** CAPBP Capsella bursa-pastoris(L.)M
Common Name: shepherdspurse

Pest 3 Type: W **Code:** CARPA Cardamine parviflora L.
Common Name: bittercress, smallflowered

Pest 4 Type: W **Code:** LAMAM Lamium amplexicaule L.
Common Name: henbit

Pest 5 Type: W **Code:** RANAB Ranunculus abortivus L.
Common Name: buttercup, smallflower

Pest 6 Type: D **Code:** GIBBZE Gibberella zeae
Common Name: Blight of cereals

Pest 7 Type: D **Code:** SEPTTR Zymoseptoria tritici
Common Name: Speckled leaf blotch of wheat

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 30 LB/A, P2O5 0 LB/A, K2O 0 LB/A
2.	FERT	N 85 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: 11A_2013
% OM: 2.9 **Texture:** SIL silt loam
pH: 6.8 **Soil Name:** Pierron
CEC: 9

Additional Measured Elements

Element	Quantity	Unit
P1	72	lb/A
K	345	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	10-1-16					7	DAY	49	87	F
2.	10-8-16					7	DAY	42	81	F
3.	10-12-16	0.07	IN	RAIN	rain	1	DAY			
4.	10-15-16					7	DAY	41	87	F
5.	10-19-16	0.94	IN	RAIN	rain	1	DAY			
6.	10-20-16	1.3	IN	RAIN	rain	1	DAY			
7.	10-22-16					7	DAY	37	80	F
8.	10-26-16	0.1	IN	RAIN	rain	1	DAY			
9.	10-29-16					7	DAY	44	83	F
10.	11-2-16	0.84	IN	RAIN	rain	2	DAY			
11.	11-5-16					7	DAY	32	70	F
12.	11-8-16	0.18	IN	RAIN	rain	1	DAY			
13.	11-12-16					7	DAY	27	79	F
14.	11-18-16	0.49	IN	RAIN	rain	1	DAY			
15.	11-19-16					7	DAY	25	52	F
16.	11-22-16	0.42	IN	RAIN	rain	2	DAY			
17.	11-26-16					7	DAY	25	58	F
18.	11-27-16	0.88	IN	RAIN	rain	2	DAY			
19.	12-3-16					7	DAY	16	45	F
20.	12-4-16	0.21	IN	RAIN	rain	1	DAY			
21.	12-10-16					7	DAY	12	44	F
22.	12-13-16	0.02	IN	RAIN	rain	1	DAY			
23.	12-17-16					7	DAY	1	49	F
24.	12-17-16	0.08	IN	RAIN	rain	1	DAY			
25.	12-23-16	0.41	IN	RAIN	rain	1	DAY			
26.	12-24-16					7	DAY	28	66	F
27.	12-25-16	0.42	IN	RAIN	rain	4	DAY			
28.	12-31-16					7	DAY	4	53	F
29.	1-2-17	0.5	IN	RAIN	rain	4	DAY			
30.	1-7-17					7	DAY	1	66	F
31.	1-10-17	1.18	IN	RAIN	rain	7	DAY			
32.	1-14-17					7	DAY	31	57	F
33.	1-19-17	1.19	IN	RAIN	rain	1	DAY			
34.	1-21-17					7	DAY	23	69	F
35.	1-28-17					7	DAY	17	51	F
36.	2-4-17					7	DAY	16	69	F
37.	2-6-17	0.08	IN	RAIN	rain	2	DAY			
38.	2-11-17					7	DAY	24	73	F
39.	2-11-17	0.01	IN	RAIN	rain	1	DAY			
40.	2-18-17					7	DAY	36	76	F
41.	2-21-17	0.14	IN	RAIN	rain	3	DAY			
42.	2-25-17					7	DAY	22	70	F
43.	2-27-17	1.15	IN	RAIN	rain	3	DAY			
44.	3-4-17					7	DAY	32	74	F
45.	3-6-17	0.64	IN	RAIN	rain	4	DAY			
46.	3-11-17					7	DAY	15	65	F
47.	3-13-17	0.13	IN	RAIN	rain	1	DAY			

48.	3-17-17	0.07	IN	RAIN	rain	1	DAY			
49.	3-18-17					7	DAY	30	85	F
50.	3-23-17	0.59	IN	RAIN	rain	3	DAY			
51.	3-25-17					7	DAY	44	72	F
52.	3-27-17	0.25	IN	RAIN	rain	1	DAY			
53.	3-30-17	1.1	IN	RAIN	rain	2	DAY			
54.	4-1-17					7	DAY	39	70	F
55.	4-2-17	1.85	IN	RAIN	rain	5	DAY			
56.	4-8-17					7	DAY	39	81	F
57.	4-10-17	0.12	IN	RAIN	rain	1	DAY			
58.	4-14-17	0.21	IN	RAIN	rain	1	DAY			
59.	4-15-17					7	DAY	49	86	F
60.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
61.	4-22-17					7	DAY	41	80	F
62.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
63.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
64.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
65.	4-29-17					7	DAY	45	77	F
66.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
67.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
68.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
69.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
70.	5-6-17					7	DAY	43	87	F
71.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
72.	5-13-17					7	DAY	51	87	F
73.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
74.	5-20-17					7	DAY	50	80	F
75.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
76.	5-27-17					7	DAY	55	87	F
77.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
78.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
79.	6-3-17					7	DAY	54	89	F
80.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
81.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
82.	6-17-17					7	DAY	62	92	F

Application Description

	A	B	C	D
Application Date:	10-21-16	11-16-16	3-8-17	4-27-17
Appl. Start Time:	15:30	14:00	9:00	15:00
Appl. Stop Time:	16:00	14:30	9:30	15:30
Interval to Prev. Appl., Unit:		26 DAYS	112 DAYS	50 DAYS
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	DELAYPRE	3LEAF	FK4	FK 10.5.1
Application Placement:	BROFOL	BROFOL	BROFOL	BROFOL
Applied By:	RFK	RFK	RFK	RFK
Air Temperature, Unit:	55 F	70 F	50 F	59 F
% Relative Humidity:	55	45	36	58
Wind Velocity, Unit:	7 MPH	2 MPH	8 MPH	8 MPH
Wind Direction:	NW	VRB	SW	SW
Dew Presence (Y/N):	N	N	N	N
Soil Temperature, Unit:	61 F	52 F	49 F	60 F
Soil Moisture:	ABONOR	NORMAL	NORMAL	ABONOR
Next Moisture Occurred On:	10-26-17	11-18-17	3-9-17	4-28-17
Time to Next Moisture, Unit:	5 DAY	48 HR	32 HR	15 HR

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	TRZAW	TRZAW	TRZAW	TRZAW
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	F2	F4	F10.5.1
Stage Minimum, Percent:		F2	F4	F10.5.1
Stage Maximum, Percent:		F2	F4	F10.5.1
Height, Unit:		3 IN	5 IN	33 IN
Height Minimum, Maximum:		2 4	4 6	32 34

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	4	4	N/A	
Stage Minimum, Percent:	2	2		
Stage Maximum, Percent:	4	4		
Height, Unit:	0.5 IN	1 IN		
Height Minimum, Maximum:	0 0.5	0 1		
Density, Unit:	0.0001 FT2	0.001 FT2		
Pest 2 Code, Type, Scale:	CAPBP W	CAPBP W	CAPBP W	CAPBP W
Stage Majority, Percent:	2	5	4	
Stage Minimum, Percent:	1	3	3	
Stage Maximum, Percent:	2	5	4	
Height, Unit:	0.5 IN	2 IN	2 IN	
Height Minimum, Maximum:	0 1	1 2	1 3	
Density, Unit:	0.001 FT2	0.01 FT2	0.01 FT2	
Pest 3 Code, Type, Scale:	CARPA W	CARPA W	CARPA W	CARPA W
Stage Majority, Percent:	N/A	N/A	2	
Stage Minimum, Percent:			1	
Stage Maximum, Percent:			3	
Height, Unit:			1 IN	
Height Minimum, Maximum:			0 1	
Density, Unit:			0.002 FT2	
Pest 4 Code, Type, Scale:	LAMAM W	LAMAM W	LAMAM W	LAMAM W
Stage Majority, Percent:	N/A	N/A	N/A	
Pest 5 Code, Type, Scale:	RANAB W	RANAB W	RANAB W	RANAB W
Stage Majority, Percent:	2	4	10+	
Stage Minimum, Percent:	1	1	10+	
Stage Maximum, Percent:	3	3	10+	
Height, Unit:	0.5 IN	1 IN	4 IN	
Height Minimum, Maximum:	0 1	0 1	2 4	
Density, Unit:	0.001 FT2	0.001 FT2	0.01 FT2	
Pest 6 Code, Type, Scale:	GIBBZE D	GIBBZE D	GIBBZE D	GIBBZE D
Pest 7 Code, Type, Scale:	SEPTTR D	SEPTTR D	SEPTTR D	SEPTTR D

Application Equipment

	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR	XR
Nozzle Size:	8002	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA

Southern Illinois University

Weed Control in No-Till Winter Wheat.
Trial ID: 17-11A Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	TRZAW 11-5-16 Injury 0-99 15 DA-A 15 DA-B	TRZAW 11-20-16 Injury 0-99 30 DA-A 30 DA-B	TRZAW 3-8-17 Injury 0-99 0 DA-C	TRZAW 3-23-17 Injury 0-99 15 DA-C	TRZAW 3-29-17 Injury 0-99 21 DA-C	TRZAW 4-7-17 Injury 0-99 30 DA-C
1	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A						
	NIMBLE	75	WG			0.5	oz/a	FK4	C						
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C						
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C						
2	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A						
	NIMBLE	75	WG			0.5	oz/a	FK4	C						
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C						
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C						
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C						
3	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A						
	NIMBLE	75	WG			0.5	oz/a	FK4	C						
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C						
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C						
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C						
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D						
4	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A						
	NIMBLE	75	WG			0.5	oz/a	FK4	C						
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C						
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C						
5	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A						
	NIMBLE	75	WG			0.5	oz/a	FK4	C						
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C						
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C						
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C						
6	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A						
	NIMBLE	75	WG			0.5	oz/a	FK4	C						
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C						
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C						
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C						
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D						

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code														
	Crop Code									TRZAW	TRZAW	TRZAW	TRZAW	TRZAW	TRZAW
	Rating Date									11-5-16	11-20-16	3-8-17	3-23-17	3-29-17	4-7-17
	Rating Type									Injury	Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing									15 DA-A	30 DA-A				
	Trt-Eval Interval									15 DA-B	30 DA-B	0 DA-C	15 DA-C	21 DA-C	30 DA-C
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A						
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A						
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D						
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A						
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A						
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C						
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C						
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C						
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A						
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C						
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C						
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C						
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D						
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	0 a	0 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A						
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D						
13	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	3LEAF	B	0 a	0 a	0 a	0 a	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3LEAF	B						
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3LEAF	B						
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D						
14	NONTREATED									0	0	0	0	0	0
	LSD P=.05									.	.	.	.	.	.
	Standard Deviation									0.0	0.0	0.0	0.0	0.0	0.0
	CV									0.0	0.0	0.0	0.0	0.0	0.0
	Replicate F									0.000	0.000	0.000	0.000	0.000	0.000
	Replicate Prob(F)									1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	Treatment F									0.000	0.000	0.000	0.000	0.000	0.000
	Treatment Prob(F)									1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code										AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code									TRZAW				
	Rating Date									5-18-17	3-8-17	3-23-17	4-7-17	6-13-17
	Rating Type									Injury	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													235 DA-A
	Trt-Eval Interval									21 DA-D	0 DA-C	15 DA-C	30 DA-C	Harvest
1	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	97 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
2	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	97 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
3	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	98 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
4	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	97 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
5	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	97 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
6	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	96 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code										AMBTR	AMBTR	AMBTR	AMBTR
	Crop Code									TRZAW				
	Rating Date									5-18-17	3-8-17	3-23-17	4-7-17	6-13-17
	Rating Type									Injury	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													235 DA-A
	Trt-Eval Interval									21 DA-D	0 DA-C	15 DA-C	30 DA-C	Harvest
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	92 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	94 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	94 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	97 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	98 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 a	0 a	96 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
13	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	3LEAF	B	0 a	0 a	0 a	0 a	96 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3LEAF	B					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3LEAF	B					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
14	NONTREATED									0	0	0	0	98
	LSD P=.05									.	.	.	.	4.0
	Standard Deviation									0.0	0.0	0.0	0.0	2.8
	CV									0.0	0.0	0.0	0.0	2.91
	Replicate F									0.000	0.000	0.000	0.000	3.053
	Replicate Prob(F)									1.0000	1.0000	1.0000	1.0000	0.0407
	Treatment F									0.000	0.000	0.000	0.000	1.678
	Treatment Prob(F)									1.0000	1.0000	1.0000	1.0000	0.1137

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Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	CAPBP	CAPBP	CAPBP	CAPBP	CAPBP
	Pest Code									CAPBP	CAPBP	CAPBP	CAPBP	CAPBP
	Crop Code													
	Rating Date									11-5-16	11-20-16	3-8-17	3-23-17	4-7-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									15 DA-A	30 DA-A			
	Trt-Eval Interval									15 DA-B	30 DA-B	0 DA-C	15 DA-C	30 DA-C
1	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
2	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
3	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
4	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
5	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
6	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									CAPBP	CAPBP	CAPBP	CAPBP	CAPBP
	Crop Code													
	Rating Date									11-5-16	11-20-16	3-8-17	3-23-17	4-7-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									15 DA-A	30 DA-A			
	Trt-Eval Interval									15 DA-B	30 DA-B	0 DA-C	15 DA-C	30 DA-C
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
13	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	3LEAF	B	50 b	50 b	99 a	99 a	99 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3LEAF	B					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3LEAF	B					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
14	NONTREATED									0	0	0	0	0
	LSD P=.05									.	.	.	.	.
	Standard Deviation									0.0	0.0	0.0	0.0	0.0
	CV									0.0	0.0	0.0	0.0	0.0
	Replicate F									0.000	0.000	0.000	0.000	0.000
	Replicate Prob(F)									1.0000	1.0000	1.0000	1.0000	1.0000
	Treatment F									0.000	0.000	0.000	0.000	0.000
	Treatment Prob(F)									1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	CARPA	CARPA	CARPA
	Pest Code									CARPA	CARPA	CARPA
	Crop Code											
	Rating Date									3-8-17	3-23-17	4-7-17
	Rating Type									Control	Control	Control
	Rating Unit									0-99	0-99	0-99
	Rating Timing											
	Trt-Eval Interval									0 DA-C	15 DA-C	30 DA-C
1	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
2	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
3	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
4	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
5	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
6	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Pest Code										CARPA	CARPA	CARPA
Crop Code												
Rating Date										3-8-17	3-23-17	4-7-17
Rating Type										Control	Control	Control
Rating Unit										0-99	0-99	0-99
Rating Timing												
Trt-Eval Interval										0 DA-C	15 DA-C	30 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code			
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	97 a	97 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	97 a	97 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
13	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	3LEAF	B	99 a	99 a	99 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3LEAF	B			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3LEAF	B			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
14	NONTREATED									0	0	0
LSD P=.05										2.5	2.5	.
Standard Deviation										1.8	1.8	0.0
CV										1.79	1.79	0.0
Replicate F										0.599	0.599	0.000
Replicate Prob(F)										0.6200	0.6200	1.0000
Treatment F										1.025	1.025	0.000
Treatment Prob(F)										0.4481	0.4481	1.0000

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Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Pest Code									LAMAM	LAMAM	LAMAM
Crop Code											
Rating Date									3-8-17	3-23-17	4-7-17
Rating Type									Control	Control	Control
Rating Unit									0-99	0-99	0-99
Rating Timing											
Trt-Eval Interval									0 DA-C	15 DA-C	30 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	97 a	97 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
2	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	97 a	97 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
3	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
4	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	97 a	97 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
5	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	93 a	93 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
6	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	94 a	94 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A			
	NIMBLE	75	WG			0.5	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
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Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Pest Code									LAMAM	LAMAM	LAMAM
Crop Code											
Rating Date									3-8-17	3-23-17	4-7-17
Rating Type									Control	Control	Control
Rating Unit									0-99	0-99	0-99
Rating Timing											
Trt-Eval Interval									0 DA-C	15 DA-C	30 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	92 a	92 a	92 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	95 a	95 a	95 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	92 a	92 a	92 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	72 a	72 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	91 a	91 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C			
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C			
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	81 a	81 a	80 b
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
13	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	3LEAF	B	96 a	96 a	96 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3LEAF	B			
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3LEAF	B			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D			
14	NONTREATED									0	0	0
LSD P=.05										19.9	19.9	9.5
Standard Deviation										13.9	13.9	6.6
CV										15.13	15.13	6.94
Replicate F										5.239	5.239	3.913
Replicate Prob(F)										0.0042	0.0042	0.0162
Treatment F										1.147	1.147	2.897
Treatment Prob(F)										0.3560	0.3560	0.0067

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Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									RANAB	RANAB	RANAB	RANAB	RANAB
	Crop Code													
	Rating Date									11-5-16	11-20-16	3-8-17	3-23-17	4-7-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									15 DA-A	30 DA-A			
	Trt-Eval Interval									15 DA-B	30 DA-B	0 DA-C	15 DA-C	30 DA-C
1	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
2	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	97 a	97 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
3	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	98 a	98 a	98 a	99 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
4	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	99 a	99 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
5	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	99 a	94 a	94 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
6	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	99 a	98 a	94 a	94 a	99 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					

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Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									RANAB	RANAB	RANAB	RANAB	RANAB
	Crop Code													
	Rating Date									11-5-16	11-20-16	3-8-17	3-23-17	4-7-17
	Rating Type									Control	Control	Control	Control	Control
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing									15 DA-A	30 DA-A			
	Trt-Eval Interval									15 DA-B	30 DA-B	0 DA-C	15 DA-C	30 DA-C
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	98 a	94 a	94 a	94 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	93 a	93 a	93 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	97 a	97 a	97 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	91 a	91 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	97 a	97 a	99 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	99 a	99 a	98 a	98 a	98 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
13	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	3LEAF	B	50 b	50 b	99 a	99 a	99 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3LEAF	B					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3LEAF	B					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
14	NONTREATED									0	0	0	0	0
	LSD P=.05									.	1.4	8.2	8.2	5.4
	Standard Deviation									0.0	1.0	5.7	5.7	3.8
	CV									0.0	1.04	5.98	5.98	3.88
	Replicate F									0.000	0.316	3.383	3.383	1.037
	Replicate Prob(F)									1.0000	0.8138	0.0285	0.0285	0.3880
	Treatment F									0.000	751.263	0.813	0.813	1.204
	Treatment Prob(F)									1.0000	0.0001	0.6358	0.6358	0.3175

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Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Pest Code															
Crop Code										TRZAW	TRZAW	SEPTTR TRZAW	SEPTTR TRZAW	GIBBZE TRZAW
Rating Date										3-29-17	3-29-17	5-18-17	5-18-17	5-26-17
Rating Type										Incidence	Severity	Incidence	Severity	Incidence
Rating Unit										0-99	0-50	0-99	0-50	0-99
Rating Timing														
Trt-Eval Interval										21 DA-C	21 DA-C	21 DA-D	21 DA-D	60 DA-D
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	46 a	25 a	1 bc
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
2	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	34 ab	23 a	1 bc
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
3	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 c	0 c	0 c
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
4	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	21 bc	25 a	1 bc
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
5	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	35 ab	21 a	1 ab
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
6	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 a	0 a	0 c	0 c	0 c
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A					
	NIMBLE	75	WG			0.5	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	TRZAW 3-29-17 Incidence 0-99 21 DA-C	TRZAW 3-29-17 Severity 0-50 21 DA-C	SEPTTR TRZAW 5-18-17 Incidence 0-99 21 DA-D	SEPTTR TRZAW 5-18-17 Severity 0-50 21 DA-D	GIBBZE TRZAW 5-26-17 Incidence 0-99 60 DA-D
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	35 ab	14 b	1 bc
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 c	0 c	0 c
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	40 ab	25 a	1 bc
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	40 ab	25 a	1 ab
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 c	0 c	0 c
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C					
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C					
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 a	0 a	0 c	0 c	0 c
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
13	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	3LEAF	B	0 a	0 a	0 c	0 c	0 c
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3LEAF	B					
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3LEAF	B					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D					
14	NONTREATED									0 a	0 a	46 a	25 a	2 a
	LSD P=.05									.	.	23.5	4.3	1.0
	Standard Deviation									0.0	0.0	16.4	3.0	0.7
	CV									0.0	0.0	77.3	23.1	139.43
	Replicate F									0.000	0.000	0.496	2.167	1.199
	Replicate Prob(F)									1.0000	1.0000	0.6869	0.1074	0.3230
	Treatment F									0.000	0.000	5.926	64.242	2.508
	Treatment Prob(F)									1.0000	1.0000	0.0001	0.0001	0.0134

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Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GIBBZE TRZAW 5-26-17 Severity 0-50 60 DA-D	TRZAW 6-13-17 Yield bu/A HARVEST	TRZAW 6-13-17 Moisture Percent HARVEST	TRZAW 6-13-17 Test wt. lb/bu HARVEST
1	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	1 b	58 a	13.0 a	54.2 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A				
	NIMBLE	75	WG			0.5	oz/a	FK4	C				
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C				
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C				
2	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	1 b	60 a	13.1 a	54.1 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A				
	NIMBLE	75	WG			0.5	oz/a	FK4	C				
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C				
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C				
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C				
3	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 c	58 a	13.3 a	53.9 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A				
	NIMBLE	75	WG			0.5	oz/a	FK4	C				
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C				
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C				
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C				
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D				
4	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	1 ab	59 a	13.0 a	54.1 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A				
	NIMBLE	75	WG			0.5	oz/a	FK4	C				
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C				
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C				
5	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	1 a	56 a	13.0 a	54.2 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A				
	NIMBLE	75	WG			0.5	oz/a	FK4	C				
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C				
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C				
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C				
6	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A	0 c	58 a	12.8 a	54.3 a
	GRAMOXONE SL 2.0	2	SL	0.5	lb ai/a	32	fl oz/a	DELAYPRE	A				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	DELAYPRE	A				
	NIMBLE	75	WG			0.5	oz/a	FK4	C				
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C				
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C				
	PREEMPTOR SC	3.22	SC	0.0503	lb ai/a	2	fl oz/a	FK4	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C				
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D				

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	GIBBZE	TRZAW	TRZAW	TRZAW
	Pest Code									GIBBZE			
	Crop Code									TRZAW	TRZAW	TRZAW	TRZAW
	Rating Date									5-26-17	6-13-17	6-13-17	6-13-17
	Rating Type									Severity	Yield	Moisture	Test wt.
	Rating Unit									0-50	bu/A	Percent	lb/bu
	Rating Timing												
	Trt-Eval Interval									60 DA-D	HARVEST	HARVEST	HARVEST
7	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	1 ab	56 a	13.0 a	54.2 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A				
8	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 c	61 a	12.5 a	54.4 a
	ANTHEM FLEX	4	SE	0.078	lb ai/a	2.5	fl oz/a	DELAYPRE	A				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A				
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D				
9	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	1 b	58 a	12.6 a	54.4 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A				
10	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	1 a	55 a	12.8 a	54.2 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A				
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C				
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C				
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C				
11	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 c	62 a	12.8 a	54.3 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A				
	HARMONY EXTRA SG	50	SG			0.75	oz/a	FK4	C				
	HARMONY SG	50	SG	0.01563	lb ai/a			FK4	C				
	EXPRESS	50	SG	.007813	lb ai/a			FK4	C				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK4	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	FK4	C				
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D				
12	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	DELAYPRE	A	0 c	59 a	12.6 a	54.4 a
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	DELAYPRE	A				
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D				
13	POWERFLEX HL	13	WG	0.0163	lb ai/a	2	oz/a	3LEAF	B	0 c	62 a	12.6 a	54.3 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	3LEAF	B				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	3LEAF	B				
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	FK10.5.1	D				
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	FK10.5.1	D				
14	NONTREATED									1 ab	55 a	12.8 a	54.3 a
	LSD P=.05									0.5	5.4	0.96	0.50
	Standard Deviation									0.3	3.8	0.67	0.35
	CV									83.85	6.45	5.19	0.64
	Replicate F									1.757	3.604	3.923	5.438
	Replicate Prob(F)									0.1714	0.0222	0.0158	0.0034
	Treatment F									5.386	1.723	0.482	0.517
	Treatment Prob(F)									0.0001	0.0968	0.9208	0.8994

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Missing data estimates are included in columns:Average=6,2,3
Could not calculate LSD (% mean diff) for columns 7,10,13,19,34,25,37,18,24,30,9,12,15,21,27,29,8,32,33 because error mean square = 0.

Southern Illinois University

Weed Control in No-Till Winter Wheat.
Trial ID: 17-11A Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: FMC (16.NAC.A.H.F.-NVH01) and SIU/RFK.
2. Ratings:
   CI and WC at 15 + 30 DA-A; and 0, 15 + 30 DA-C.
   CI + DI/DS at 21 DA-C and 21 DA-D.
   Rate weed control for all plots before spray application C.
3. Yield if possible.
4. Application timing A (DELAYPRE) = 48-72 hours after planting.
   Application timing B (3LEAF) = Fall application, anytime after 2 leaf wheat.
   Application timing C (FK4) = Spring application, before FK5.
   Application timing D (FK10.5.1) = Beginning flowering.

Rainfall following application A was 0.1" over 1 day beginning 5 days after application.
Rainfall following application B was 0.49" over 1 day beginning 48 hours after application.
Rainfall following application C was 0.21" over 1 day beginning 32 hours after application.
Rainfall following application D was 5.94" over 3 days beginning 15 hours after application.

CI and WC at 15 DA-B were rated on 12-1-16 but reported in the same column as the 15 DA-A rating.
CI and WC at 30 DA-B were rated on 12-16-16 but reported in the same column as the 30 DA-A rating.
-This affects only treatment 13, and only for the fall '16 ratings; all other WC ratings are reported as DA-C (spring herbicide application).

There were no CI symptoms present at any rating timing.

There were no disease symptoms present on flag leaves at 21 DA-C.

Disease rated at 21 DA-D was Septoria Leaf Blotch.
GIBBZE= Fusarium head blight/scab (*Fusarium graminearum/ Gibberella zeae*)

Southern Illinois University

Wheat Fungicide Fusarium Head Scab Demonstration
Trial ID: 17-30-NM Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 10-11-16
Completion Date: 6-12-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.51944 N
Longitude of LL Corner °: 89.842045 W USAIL 42.5083389 - 36.9702949
-87.0199279 - -91.5130844

Objectives:
Demonstrate control of headscab, septoria and leaf diseases in winter wheat with a Feekes 4-5 application timing followed by a Feekes 10.3.1 application.

Contacts

Study Director: Ronald F. Krausz **Title:** Researcher/Farm Manager
Organization: Belleville Research Center - Southern Illinois Univ Carbondale
Address: 2036 Charles Lane **Phone No.:** 618-566-4761
City+State/Prov: Belleville, IL
Postal Code: 62221 **E-mail:** rkrausz@siu.edu
Country: USA

Crop Description

Crop 1: TRZAW Triticum aestivum (winter) Winter wheat
Variety: FS 602 **BBCH Scale:** BCER
Planting Date: 10-11-16
Planting Method: SEEDED
Planting Rate, Unit: 1.3 millionS/A
Depth, Unit: 1 IN
Row Spacing, Unit: 7.5 IN
Soil Temperature, Unit: 64 F
Soil Moisture: NORMAL
Seed Bed: FINTRA

Pest Description

Pest 1 Type: D **Code:** FUSASP Fusarium sp.
Common Name: Fusarium sp.
Description: fusarium head blight (head scab)

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 28 FT **Total Plot Length:** 28 FT **Experimental Unit:** 1 PLOT
Tillage Type: NOTILL no-till
Replications: 5 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	Fall: N 30 LB/A, P2O5 76 LB/A, K2O 0 LB/A
2.	FERT	Spring: N 85 LB/A, P2O5 0 LB/A, K2O 0 LB/A

Soil Description

Description Name: 30_2013
% OM: 2.7 **Texture:** SIL silt loam
pH: 6.7 **Soil Name:** Winfield
CEC: 7

Additional Measured Elements

Element	Quantity	Unit
P1	59	lb/A
K	258	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	10-1-16					7	DAY	49	87	F
2.	10-8-16					7	DAY	42	81	F
3.	10-12-16	0.07	IN	RAIN	rain	1	DAY			
4.	10-15-16					7	DAY	41	87	F
5.	10-19-16	0.94	IN	RAIN	rain	1	DAY			
6.	10-20-16	1.3	IN	RAIN	rain	1	DAY			
7.	10-22-16					7	DAY	37	80	F
8.	10-26-16	0.1	IN	RAIN	rain	1	DAY			
9.	10-29-16					7	DAY	44	83	F
10.	11-2-16	0.84	IN	RAIN	rain	2	DAY			
11.	11-5-16					7	DAY	32	70	F
12.	11-8-16	0.18	IN	RAIN	rain	1	DAY			
13.	11-12-16					7	DAY	27	79	F
14.	11-18-16	0.49	IN	RAIN	rain	1	DAY			
15.	11-19-16					7	DAY	25	52	F
16.	11-22-16	0.42	IN	RAIN	rain	2	DAY			
17.	11-26-16					7	DAY	25	58	F
18.	11-27-16	0.88	IN	RAIN	rain	2	DAY			
19.	12-3-16					7	DAY	16	45	F
20.	12-4-16	0.21	IN	RAIN	rain	1	DAY			
21.	12-10-16					7	DAY	12	44	F
22.	12-13-16	0.02	IN	RAIN	rain	1	DAY			
23.	12-17-16					7	DAY	1	49	F
24.	12-17-16	0.08	IN	RAIN	rain	1	DAY			
25.	12-23-16	0.41	IN	RAIN	rain	1	DAY			
26.	12-24-16					7	DAY	28	66	F
27.	12-25-16	0.42	IN	RAIN	rain	4	DAY			
28.	12-31-16					7	DAY	4	53	F
29.	1-2-17	0.5	IN	RAIN	rain	4	DAY			
30.	1-7-17					7	DAY	1	66	F
31.	1-10-17	1.18	IN	RAIN	rain	7	DAY			
32.	1-14-17					7	DAY	31	57	F
33.	1-19-17	1.19	IN	RAIN	rain	1	DAY			
34.	1-21-17					7	DAY	23	69	F
35.	1-28-17					7	DAY	17	51	F
36.	2-4-17					7	DAY	16	69	F
37.	2-6-17	0.08	IN	RAIN	rain	2	DAY			
38.	2-11-17					7	DAY	24	73	F
39.	2-11-17	0.01	IN	RAIN	rain	1	DAY			
40.	2-18-17					7	DAY	36	76	F
41.	2-21-17	0.14	IN	RAIN	rain	3	DAY			
42.	2-25-17					7	DAY	22	70	F
43.	2-27-17	1.15	IN	RAIN	rain	3	DAY			
44.	3-4-17					7	DAY	32	74	F
45.	3-6-17	0.64	IN	RAIN	rain	4	DAY			
46.	3-11-17					7	DAY	15	65	F
47.	3-13-17	0.13	IN	RAIN	rain	1	DAY			
48.	3-17-17	0.07	IN	RAIN	rain	1	DAY			
49.	3-18-17					7	DAY	30	85	F
50.	3-23-17	0.59	IN	RAIN	rain	3	DAY			
51.	3-25-17					7	DAY	44	72	F
52.	3-27-17	0.25	IN	RAIN	rain	1	DAY			
53.	3-30-17	1.1	IN	RAIN	rain	2	DAY			
54.	4-1-17					7	DAY	39	70	F
55.	4-2-17	1.85	IN	RAIN	rain	5	DAY			
56.	4-8-17					7	DAY	39	81	F
57.	4-10-17	0.12	IN	RAIN	rain	1	DAY			
58.	4-14-17	0.21	IN	RAIN	rain	1	DAY			
59.	4-15-17					7	DAY	49	86	F

60.	4-21-17	0.38	IN	RAIN	rain	2	DAY			
61.	4-22-17					7	DAY	41	80	F
62.	4-26-17	1.23	IN	RAIN	rain	1	DAY			
63.	4-27-17	0.21	IN	RAIN	rain	1	DAY			
64.	4-28-17	0.22	IN	RAIN	rain	1	DAY			
65.	4-29-17					7	DAY	45	77	F
66.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
67.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
68.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
69.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
70.	5-6-17					7	DAY	43	87	F
71.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
72.	5-13-17					7	DAY	51	87	F
73.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
74.	5-20-17					7	DAY	50	80	F
75.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
76.	5-27-17					7	DAY	55	87	F
77.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
78.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
79.	6-3-17					7	DAY	54	89	F
80.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
81.	6-14-17	0.16	IN	RAIN	rain	1	DAY			
82.	6-15-17	0.94	IN	RAIN	rain	1	DAY			
83.	6-17-17					7	DAY	62	92	F
84.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
85.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
86.	6-24-17					7	DAY	53	91	F
87.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
88.	7-1-17					7	DAY	60	93	F
89.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
90.	7-8-17					7	DAY	67	98	F
91.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
92.	7-15-17					7	DAY	60	91	F

Application Description

	A	B
Application Date:	3-20-17	4-20-17
Appl. Start Time:	9:00	7:00
Appl. Stop Time:	9:30	7:30
Interval to Prev. Appl., Unit:		31 DAYS
Application Method:	Spray	Spray
Application Timing:	F4-F5	F10.3.1
Application Placement:	BROFOL	BROFOL
Applied By:	RFK	RFK
Air Temperature, Unit:	61 F	68 F
% Relative Humidity:	55	83
Wind Velocity, Unit:	4 MPH	4 MPH
Wind Direction:	VAR	SE
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	49 F	65 F
Soil Moisture:	NORMAL	ABONOR
% Cloud Cover:	20	25
Next Moisture Occurred On:	3-23-17	4-20-17
Time to Next Moisture, Unit:	3 DAY	8 HR

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	TRZAW	TRZAW
Stage Scale Used:	DESC	DESC
Stage Majority, Percent:	FK4	FK10.3.1
Stage Minimum, Percent:	FK4	FK10.3.1
Stage Maximum, Percent:	FK5	FK10.3.1
Height, Unit:	7 IN	29 IN
Height Minimum, Maximum:	6 8	28 30

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	FUSASP D	FUSASP D

Application Equipment

	A	B
Appl. Equipment:	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR
Operation Pressure, Unit:	40 PSI	40 PSI
Nozzle Type:	XR	XR
Nozzle Size:	8002	8002
Row Sides Applied:		2
Boom Length, Unit:	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA

Southern Illinois University

Wheat Fungicide Fusarium Head Scab Demonstration
Trial ID: 17-30-NM Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
Pest Code														FUSASP	FUSASP
Crop Code										TRZAW	TRZAW	TRZAW	TRZAW		
Rating Date										3-27-17	4-3-17	4-27-17	5-4-17	4-10-17	4-10-17
Rating Type										Injury	Injury	Injury	Injury	Incidence	Severity
Rating Unit										0-99	0-99	0-99	0-99	% Incid	% Sever
Rating Timing												7 DA-B	14 DA-B		
Trt-Eval Interval										7 DA-A	14 DA-A	38 DA-A	45 DA-A	21 DA-A	21 DA-A
1	NONTREATED									0	0	0	0	0	0
2	TRIVAPRO	2.21	SE	0.237	lb ai/a	13.7	fl oz/a	F4-F5	A	0 a	0 a	0 a	0 a	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A						
	MIRAVIS ACE	100	SL	13.7	fl oz/a	13.7	fl oz/a	F10.3.1	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B						
3	STRATEGO YLD	4.18	SC	0.13	lb ai/a	4	fl oz/a	F4-F5	A	0 a	0 a	0 a	0 a	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A						
	PROSARO 421 SC	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	F10.3.1	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B						
4	PRIAXOR	4.17	SL	0.098	lb ai/a	3	fl oz/a	F4-F5	A	0 a	0 a	0 a	0 a	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A						
	CARAMBA	0.75	EC	0.088	lb ai/a	15	fl oz/a	F10.3.1	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B						
5	TILT	3.6	EC	0.056	lb ai/a	2	fl oz/a	F4-F5	A	0 a	0 a	0 a	0 a	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A						
	FOLICUR	3.6	SC	0.113	lb ai/a	4	fl oz/a	F10.3.1	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B						
6	TILT	3.6	EC	0.056	lb ai/a	2	fl oz/a	F4-F5	A	0 a	0 a	0 a	0 a	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A						
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	F10.3.1	B						
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B						
7	MIRAVIS ACE	100	SL	13.7	fl oz/a	13.7	fl oz/a	F10.3.1	B	0 a	0 a	0 a	0 a	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B						
8	PROSARO 421 SC	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	F10.3.1	B	0 a	0 a	0 a	0 a	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B						
LSD P=.05										.	.	.	.	.	.
Standard Deviation										0.0	0.0	0.0	0.0	0.0	0.0
CV										0.0	0.0	0.0	0.0	0.0	0.0
Replicate F										0.000	0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F										0.000	0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)										1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=12,13,14,15
Could not calculate LSD (% mean diff) for columns 10,11,16,17,12,13,14,15,19 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
Pest Code										FUSASP	FUSASP
Crop Code											
Rating Date										4-24-17	4-24-17
Rating Type										Incidence	Severity
Rating Unit										% Incid	% Sever
Rating Timing											
Trt-Eval Interval										35 DA-A	35 DA-A
1	NONTREATED									0	0
2	TRIVAPRO	2.21	SE	0.237	lb ai/a	13.7	fl oz/a	F4-F5	A	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A		
	MIRAVIS ACE	100	SL	13.7	fl oz/a	13.7	fl oz/a	F10.3.1	B		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B		
3	STRATEGO YLD	4.18	SC	0.13	lb ai/a	4	fl oz/a	F4-F5	A	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A		
	PROSARO 421 SC	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	F10.3.1	B		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B		
4	PRIAXOR	4.17	SL	0.098	lb ai/a	3	fl oz/a	F4-F5	A	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A		
	CARAMBA	0.75	EC	0.088	lb ai/a	15	fl oz/a	F10.3.1	B		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B		
5	TILT	3.6	EC	0.056	lb ai/a	2	fl oz/a	F4-F5	A	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A		
	FOLICUR	3.6	SC	0.113	lb ai/a	4	fl oz/a	F10.3.1	B		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B		
6	TILT	3.6	EC	0.056	lb ai/a	2	fl oz/a	F4-F5	A	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A		
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	F10.3.1	B		
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B		
7	MIRAVIS ACE	100	SL	13.7	fl oz/a	13.7	fl oz/a	F10.3.1	B	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B		
8	PROSARO 421 SC	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	F10.3.1	B	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B		
LSD P=.05										.	.
Standard Deviation										0.0	0.0
CV										0.0	0.0
Replicate F										0.000	0.000
Replicate Prob(F)										1.0000	1.0000
Treatment F										0.000	0.000
Treatment Prob(F)										1.0000	1.0000

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Could not calculate LSD (% mean diff) for columns 10,11,16,17,12,13,14,15,19 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	FUSASP	FUSASP	FUSASP	FUSASP	TRZAW
	Pest Code									FUSASP	FUSASP	FUSASP	FUSASP	
	Crop Code													TRZAW
	Rating Date									5-18-17	5-18-17	5-18-17	5-18-17	5-31-17
	Rating Type									Incidence	# Evaluated	Severity	Severity	Greenness
	Rating Unit									/plot	/plot	/plant	/plot	Percent
	Rating Timing									28 DA-B	28 DA-B	28 DA-B	28 DA-B	41 DA-B
	Trt-Eval Interval									59 DA-A	59 DA-A	59 DA-A	59 DA-A	72 DA-A
1	NONTREATED									0	30	3	0	17 a
2	TRIVAPRO	2.21	SE	0.237	lb ai/a	13.7	fl oz/a	F4-F5	A	0 a	30 a	0 a	0 a	17 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A					
	MIRAVIS ACE	100	SL	13.7	fl oz/a	13.7	fl oz/a	F10.3.1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B					
3	STRATEGO YLD	4.18	SC	0.13	lb ai/a	4	fl oz/a	F4-F5	A	1 a	30 a	9 a	0 a	15 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A					
	PROSARO 421 SC	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	F10.3.1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B					
4	PRIAXOR	4.17	SL	0.098	lb ai/a	3	fl oz/a	F4-F5	A	0 a	30 a	0 a	0 a	16 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A					
	CARAMBA	0.75	EC	0.088	lb ai/a	15	fl oz/a	F10.3.1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B					
5	TILT	3.6	EC	0.056	lb ai/a	2	fl oz/a	F4-F5	A	0 a	30 a	1 a	0 a	18 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A					
	FOLICUR	3.6	SC	0.113	lb ai/a	4	fl oz/a	F10.3.1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B					
6	TILT	3.6	EC	0.056	lb ai/a	2	fl oz/a	F4-F5	A	0 a	30 a	0 a	0 a	16 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A					
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	F10.3.1	B					
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B					
7	MIRAVIS ACE	100	SL	13.7	fl oz/a	13.7	fl oz/a	F10.3.1	B	0 a	30 a	0 a	0 a	18 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B					
8	PROSARO 421 SC	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	F10.3.1	B	0 a	30 a	0 a	0 a	18 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B					
	LSD P=.05									0.6	.	7.4	0.3	7.7
	Standard Deviation									0.4	0.0	5.7	0.2	5.9
	CV									173.92	0.0	360.09	426.96	35.13
	Replicate F									0.500	0.000	0.961	0.720	0.400
	Replicate Prob(F)									0.7360	1.0000	0.4465	0.5867	0.8068
	Treatment F									1.238	0.000	1.702	0.800	0.180
	Treatment Prob(F)									0.3222	1.0000	0.1638	0.5795	0.9873

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	TRZAW 6-12-17 Yield bu/A 84 DA-A	TRZAW 6-12-17 Moisture Percent 84 DA-A	TRZAW 6-12-17 Test wt. lb/bu 84 DA-A
1	NONTREATED									79 a	11.5 bc	55.24 b
2	TRIVAPRO	2.21	SE	0.237	lb ai/a	13.7	fl oz/a	F4-F5	A	79 a	11.7 a	55.09 c
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A			
	MIRAVIS ACE	100	SL	13.7	fl oz/a	13.7	fl oz/a	F10.3.1	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B			
3	STRATEGO YLD	4.18	SC	0.13	lb ai/a	4	fl oz/a	F4-F5	A	76 a	11.4 cd	55.27 ab
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A			
	PROSARO 421 SC	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	F10.3.1	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B			
4	PRIAXOR	4.17	SL	0.098	lb ai/a	3	fl oz/a	F4-F5	A	74 a	11.3 cd	55.26 ab
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A			
	CARAMBA	0.75	EC	0.088	lb ai/a	15	fl oz/a	F10.3.1	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B			
5	TILT	3.6	EC	0.056	lb ai/a	2	fl oz/a	F4-F5	A	76 a	11.5 bc	55.23 b
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A			
	FOLICUR	3.6	SC	0.113	lb ai/a	4	fl oz/a	F10.3.1	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B			
6	TILT	3.6	EC	0.056	lb ai/a	2	fl oz/a	F4-F5	A	77 a	11.2 d	55.34 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F4-F5	A			
	TOPGUARD	1.04	SC	0.081	lb ai/a	10	fl oz/a	F10.3.1	B			
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B			
7	MIRAVIS ACE	100	SL	13.7	fl oz/a	13.7	fl oz/a	F10.3.1	B	80 a	11.6 ab	55.13 c
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B			
8	PROSARO 421 SC	3.52	SC	0.179	lb ai/a	6.5	fl oz/a	F10.3.1	B	75 a	11.3 cd	55.30 ab
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	F10.3.1	B			
LSD P=.05										5.6	0.19	0.081
Standard Deviation										4.3	0.14	0.063
CV										5.63	1.26	0.11
Replicate F										2.218	2.301	2.977
Replicate Prob(F)										0.0926	0.0834	0.0362
Treatment F										1.094	6.566	9.019
Treatment Prob(F)										0.3935	0.0001	0.0001

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Southern Illinois University

Wheat Fungicide Fusarium Head Scab Demonstration
Trial ID: 17-30-NM Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Syngenta (wheat fungicide demo).
2. Ratings:
   CI at 7 and 14 DA-A and 7 DA-B. (not required)
   DI/DS at 21 and 35 DA-A or when leaf diseases are evident in the nontreated.
   DI for FHB as percent of heads with any level of FHB on the head, examine 30-50 heads per plot, report as number of heads with FHB and number examined.
   DS for FHB as average severity in each plot.
   Percent greenness when nontreated plots are 80% senesced.
3. Yield, do not sell grain from treatment 2,
4. If possible get DON analysis, perhaps from selected treatments.
5. Photos that show differences in greenness vs. senescence.

Rainfall following application A was 1.11" over 3 days begining on 3-23-17, 69 hours after application.
Rainfall following application B was 0.54" over 3 days begining 8 hours after application.

A couple of notes to clarify the disease ratings from 5-18-17:
'Incidence/plot' is the number of plants (out of 30) found with head scab disease.
'Severity/plant' is the disease severity per plant within the plot; no plot had more than (1) affected plant.
'Severity/plot' is the average disease severity for the entire plot.

Southern Illinois University

Bicyclopyrone: Crop Tolerance and Weed Control in Horseradish.
Trial ID: 17-COL-Syn-HR Location: Collinsville, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-16-17
Completion Date: 7-21-17

Trial Location

City: Collinsville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62234

Latitude of LL Corner °: 38.688658 N
Longitude of LL Corner °: 90.01975 W
Altitude of LL Corner, Unit: 430.00 FT
Angle y-axis to North °: 90.00

Objectives:
Determine if bicyclopyrone has better weed control while providing acceptable tolerance in horseradish compared to competitive products when applied either preemergence or post-directed.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: ARWLA Armoracia rusticana Horseradish
Variety: 1038 **BBCH Scale:** BVRT
Planting Date: 5-16-17
Planting Method: TRANSP
Planting Rate, Unit: 7260 sets/A
Row Spacing, Unit: 36 IN
Soil Temperature, Unit: 70 F

Pest Description

Pest 1 Type: W **Code:** AMAPA Amaranthus palmeri S.Wats.
Common Name: amaranth, Palmer
Description: glyphosate-resistant Palmer amaranth

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 12 FT **Site Type:** FIELD
Treated Plot Length: 25 FT **Total Plot Length:** 25 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Maintenance Product Name
1.	N ___ LB/A, P2O5 ___ LB/A, K2O ___ LB/A

Soil Description

Description Name: Collinsville IL 2015
% Sand: 63.54 **% OM:** 2.17 **Texture:** SIL silt loam
% Silt: 28.4 **pH:** 7.7 **Soil Name:** Littleton/Haymond/Orion
% Clay: 8.06 **CEC:** 11.6

Additional Measured Elements

Element	Quantity	Unit
P1	204	lb/A
K	476	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: CLIMATE CORP **Distance, Unit:** 1 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-29-17					7	DAY	45	77	F
2.	4-29-17	2.17	IN	RAIN	rain	1	DAY			
3.	4-30-17	2.4	IN	RAIN	rain	1	DAY			
4.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
5.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
6.	5-6-17					7	DAY	43	87	F
7.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
8.	5-13-17					7	DAY	51	87	F
9.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
10.	5-20-17					7	DAY	50	80	F
11.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
12.	5-27-17					7	DAY	55	87	F
13.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
14.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
15.	6-3-17					7	DAY	54	89	F
16.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
17.	6-14-17	0.16	IN	RAIN	rain	1	DAY			
18.	6-15-17	0.94	IN	RAIN	rain	1	DAY			
19.	6-17-17					7	DAY	62	92	F
20.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
21.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
22.	6-24-17					7	DAY	53	91	F
23.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
24.	7-1-17					7	DAY	60	93	F
25.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
26.	7-8-17					7	DAY	67	98	F
27.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
28.	7-15-17					7	DAY	60	91	F
29.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
30.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
31.	7-22-17					7	DAY	69	99	F
32.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
33.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
34.	7-29-17					7	DAY	61	83	F
35.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
36.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
37.	8-5-17					7	DAY	55	87	F

Application Description

	A	B	C
Application Date:	5-23-17	5-27-17	6-8-17
Appl. Start Time:	8:00	8:00	9:10
Appl. Stop Time:	8:30	8:30	9:40
Interval to Prev. Appl., Unit:		4 DAYS	12 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	7DAP	14DAP	14-21DAE
Application Placement:	BROSOI	BROSOI	BANDIR
Applied By:	RFK	RFK	RLS
Air Temperature, Unit:	63 F	74 F	72 F
% Relative Humidity:	81	81	41
Wind Velocity, Unit:	3 MPH	3 MPH	5 MPH
Wind Direction:	S	N	N
Dew Presence (Y/N):			N
Soil Temperature, Unit:	67.5 F	69 F	70 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	25	0	0
Next Moisture Occurred On:	5-23-17	5-27-17	6-14-17
Time to Next Moisture, Unit:	5 HR	9 HR	6 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ARWLA	ARWLA	ARWLA
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	NA	4
Stage Minimum, Percent:			2
Stage Maximum, Percent:			7
Height, Unit:			5 IN
Height Minimum, Maximum:			2 8

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Stage Majority, Percent:		1	6
Stage Minimum, Percent:		0	28
Stage Maximum, Percent:		2	3
Height, Unit:		0.1 IN	3 IN
Height Minimum, Maximum:		0 0.1	1 4
Density, Unit:		1 FT2	25 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002E
Boom Length, Unit:	6.67 FT	6.67 FT	3 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

Bicyclopyrone: Crop Tolerance and Weed Control in Horseradish.
Trial ID: 17-COL-Syn-HR Location: Collinsville, IL Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
	Pest Code										AMAPA		AMAPA		
	Crop Code									ARWLA		ARWLA		ARWLA	ARWLA
	Rating Date									6-9-17	6-9-17	6-21-17	6-21-17	6-21-17	7-6-17
	Rating Type									Injury	Control	Injury	Control	Stunt	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99	0-99
	Rating Timing														
	Trt-Eval Interval									0 DA-C	0 DA-C	13 DA-C	13 DA-C	13 DA-C	28 DA-C
1	NONTREATED									0.0	0.0	0.0	0.0	0.0	0.0
2	A16003 E	1.67	SL	0.0446	lb ai/a	3.42	fl oz/a	7DAP	A	0.0 a	78.3 c	0.0 a	0.0 b	33.3 c	0.0 a
3	A16003 E	1.67	SL	0.089	lb ai/a	6.84	fl oz/a	7DAP	A	0.0 a	85.0 b	0.0 a	3.3 b	0.0 e	0.0 a
4	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	7DAP	A	0.0 a	95.0 a	0.0 a	75.0 a	0.0 e	0.0 a
5	A16003 E	1.67	SL	0.0446	lb ai/a	3.42	fl oz/a	14DAP	B	0.0 a	83.3 b	0.0 a	0.0 b	0.0 e	0.0 a
6	A16003 E	1.67	SL	0.089	lb ai/a	6.84	fl oz/a	14DAP	B	0.0 a	83.3 b	0.0 a	0.0 b	40.0 bc	0.0 a
7	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	14DAP	B	0.0 a	78.3 c	0.0 a	6.7 b	6.7 de	0.0 a
	SPRAY BETWEEN ROWS							14-21DAE	C						
	A16003 E	1.67	SL	0.0446	lb ai/a	3.42	fl oz/a	14-21DAE	C						
	INDUCE	100	SL	0.25	% v/v	0.25	% v/v	14-21DAE	C						
8	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	14DAP	B	0.3 a	97.0 a	0.0 a	80.0 a	25.0 cd	0.0 a
	SPRAY BROADCAST							IFNEED	D						
	SELECT	2	EC	0.25	lb ai/a	1	pt/a	IFNEED	D						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	IFNEED	D						
9	SPRAY BETWEEN ROWS							14-21DAE	C	0.0 a	0.0 d	0.3 a	10.0 b	60.0 ab	0.0 a
	A16003 E	1.67	SL	0.0446	lb ai/a	3.42	fl oz/a	14-21DAE	C						
	INDUCE	100	SL	0.25	% v/v	0.25	% v/v	14-21DAE	C						
10	SPRAY BETWEEN ROWS							14-21DAE	C	0.0 a	0.0 d	0.0 a	0.0 b	65.0 a	0.0 a
	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	14-21DAE	C						
	SPRAY BROADCAST							IFNEED	D						
	SELECT	2	EC	0.25	lb ai/a	1	pt/a	IFNEED	D						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	IFNEED	D						
	LSD P=.05									0.33	4.54	0.33	16.38	21.42	.
	Standard Deviation									0.19	2.62	0.19	9.46	12.23	0.00
	CV									519.62	3.93	519.62	48.68	47.86	0.0
	Replicate F									1.000	0.909	1.000	0.000	4.141	0.000
	Replicate Prob(F)									0.3897	0.4227	0.3897	1.0000	0.0387	1.0000
	Treatment F									1.000	641.445	1.000	36.744	13.355	0.000
	Treatment Prob(F)									0.4726	0.0001	0.4726	0.0001	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,12
Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code									AMAPA			AMAPA	
	Crop Code										ARWLA	ARWLA		ARWLA
	Rating Date									7-6-17	7-6-17	7-21-17	7-21-17	7-21-17
	Rating Type									Control	Stunt	Injury	Control	Stunt
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									28 DA-C	28 DA-C	43 DA-C	43 DA-C	43 DA-C
1	NONTREATED									0.0	0.0	0.0	0.0	
2	A16003 E	1.67	SL	0.0446	lb ai/a	3.42	fl oz/a	7DAP	A	0.0 b	0.0 b	0.0 a	0.0 b	
3	A16003 E	1.67	SL	0.089	lb ai/a	6.84	fl oz/a	7DAP	A	0.0 b	0.0 b	0.0 a	0.0 b	
4	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	7DAP	A	78.3 a	0.0 b	0.0 a	60.0 a	0.0 a
5	A16003 E	1.67	SL	0.0446	lb ai/a	3.42	fl oz/a	14DAP	B	0.0 b	0.0 b	0.0 a	0.0 b	
6	A16003 E	1.67	SL	0.089	lb ai/a	6.84	fl oz/a	14DAP	B	0.0 b	0.0 b	0.0 a	0.0 b	
7	DUAL MAGNUM	7.62	EC	0.95	lb ai/a	1	pt/a	14DAP	B	6.7 b	0.0 b	0.0 a	0.0 b	
	SPRAY BETWEEN ROWS							14-21DAE	C					
	A16003 E	1.67	SL	0.0446	lb ai/a	3.42	fl oz/a	14-21DAE	C					
	INDUCE	100	SL	0.25	% v/v	0.25	% v/v	14-21DAE	C					
8	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	14DAP	B	80.0 a	13.3 a	3.3 a	53.3 a	0.0 a
	SPRAY BROADCAST							IFNEED	D					
	SELECT	2	EC	0.25	lb ai/a	1	pt/a	IFNEED	D					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	IFNEED	D					
9	SPRAY BETWEEN ROWS							14-21DAE	C	0.0 b	0.0 b	0.0 a	0.0 b	
	A16003 E	1.67	SL	0.0446	lb ai/a	3.42	fl oz/a	14-21DAE	C					
	INDUCE	100	SL	0.25	% v/v	0.25	% v/v	14-21DAE	C					
10	SPRAY BETWEEN ROWS							14-21DAE	C	0.0 b	0.0 b	0.0 a	0.0 b	
	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	14-21DAE	C					
	SPRAY BROADCAST							IFNEED	D					
	SELECT	2	EC	0.25	lb ai/a	1	pt/a	IFNEED	D					
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	IFNEED	D					
	LSD P=.05									11.17	3.46	3.33	15.62	.
	Standard Deviation									6.45	1.99	1.92	9.03	0.00
	CV									35.21	134.16	519.62	71.68	0.0
	Replicate F									0.800	0.938	1.000	2.227	0.000
	Replicate Prob(F)									0.4665	0.4134	0.3897	0.1402	1.0000
	Treatment F									86.000	15.000	1.000	23.091	0.000
	Treatment Prob(F)									0.0001	0.0001	0.4726	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
Missing data estimates are included in columns:Average=9,12
Could not calculate LSD (% mean diff) for columns 10,15 because error mean square = 0.

Trial Comments

1. Protocol: Syngenta (Horseradish).
2. Ratings:
   Record date of HR emegence, overall is fine if uniform, else each plot.
   CI + WC 7 days after HR emergence rate A+B.
   CI + WC 0 DA-C rate A+B.
   CI + stunt + WC at 7, 14, 28, and 42 DA-C, rate all plots each time.
   Rate before spray application C.
   Describe injury symptoms.
3. No yield, crop destruct.
4. Report by October 5, 2017, also report as Syngenta ARM.
5. PHOTOs that show differences in crop tolerance.
6. Application A is 7 days after planting.
   Application B is 14 days after planting but prior to crop emergence.
   Application C is 14-21 days after emergence, but can be 10-14 DAE if Palmer gets too big.
   Application C is POST-directed to row centers, different mix size and different boom,
   make 2 passes with a 3 ft shielded sprayer using EVS (even) nozzles.
   Application D is POST-broadcast if needed, contact Scott Cully first, POST not within 7 days of C.

   Rainfall following application A was 0.1" over 1 day beginning 5 hours after application.
   Rainfall following application B was 0.3" over 1 day beginning 9 hours after application.
   Rainfall following application C was 1.1" over 2 days beginning 6 days after application.

   Stunting was difficult to assess due to poor weed control.
   In the few plots with partial weed control, it was difficult to determine whether
   stunting was due to herbicide or weed competition without a weed-free comparison.

   Stunt ratings were not assessed at the final rating (7/21) in plots where WC = 0.

   CI at 43 DA-C was leaf tip burning on older leaves- only in plot 108.

Southern Illinois University

Inzen Sorghum Weed Control.
Trial ID: 17-6B-E90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-1-17
Completion Date: 10-31-17

Trial Location

City: Belleville **Country:** USA
State/Prov.: Illinois IL
Postal Code: 62221

Latitude of LL Corner °: 38.51414 N
Longitude of LL Corner °: 89.83656 W
Angle y-axis to North °: 270.00
GPS Precision: G GPS for trial site

Objectives:
Evaluate herbicide programs for weed control and crop tolerance in northern grain sorghum containing the Inzen trait.

Contacts

Study Director: Karla Gage, Ph.D. **Title:** Assistant Professor of Weed Science
Organization: Southern Illinois University Carbondale
Address: 1205 Lincoln Drive MC 4415 **Phone No.:** 618-453-7679
City+State/Prov: Carbondale, IL
Postal Code: 62901 **E-mail:** kgage@siu.edu
Country: USA

Crop Description

Crop 1: SORVU Sorghum bicolor Grain sorghum
Variety: _____ **BBCH Scale:** BCOR
Description: Inzen

Planting Date: 6-1-17
Planting Method: SEEDED
Planting Rate, Unit: 100000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 72 F
Soil Moisture: NORMAL

Pest Description

Pest 1 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, common

Pest 2 Type: W **Code:** PANDI Panicum dichotomiflorum Michx.
Common Name: panicum, fall

Pest 3 Type: W **Code:** DIGIS Digitaria ischaemum (Schreb.) Schreb. ex M
Common Name: crabgrass, smooth

Site and Design

Treated Plot Width: 7.5 FT **Total Plot Width:** 10 FT **Site Type:** FIELD
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	ZEAMD	2016

Maintenance

No.	Type	Maintenance Product Name
1.	FERT	N 200 LB/A, P2O5 50 LB/A, K2O 150 LB/A

Soil Description

Description Name: 06B_2013
% OM: 2.5 **Texture:** SIL silt loam
pH: 6.2 **Soil Name:** Caseyville
CEC: 6

Additional Measured Elements

Element	Quantity	Unit
P1	42	lb/A
K	211	lb/A

Moisture and Weather Conditions

Overall Moisture Conditions: NORMAL
Closest Weather Station: ICN - Belleville IL **Distance, Unit:** 0.5 MI

No.	Date	Moisture Total	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-3-17	0.96	IN	RAIN	rain	1	DAY			
2.	5-4-17	1.75	IN	RAIN	rain	1	DAY			
3.	5-6-17					7	DAY	43	87	F
4.	5-10-17	0.16	IN	RAIN	rain	2	DAY			
5.	5-13-17					7	DAY	51	87	F
6.	5-19-17	1.46	IN	RAIN	rain	2	DAY			
7.	5-20-17					7	DAY	50	80	F
8.	5-23-17	0.1	IN	RAIN	rain	1	DAY			
9.	5-27-17	0.3	IN	RAIN	rain	1	DAY			
10.	5-27-17					7	DAY	55	87	F
11.	5-29-17	0.06	IN	RAIN	rain	1	DAY			
12.	6-3-17					7	DAY	54	89	F
13.	6-4-17	0.4	IN	RAIN	rain	2	DAY			
14.	6-14-17	1.1	IN	RAIN	rain	2	DAY			
15.	6-17-17					7	DAY	62	92	F
16.	6-18-17	0.66	IN	RAIN	rain	1	DAY			
17.	6-23-17	0.03	IN	RAIN	rain	1	DAY			
18.	6-24-17					7	DAY	53	91	F
19.	6-30-17	0.05	IN	RAIN	rain	1	DAY			
20.	7-1-17					7	DAY	60	93	F
21.	7-5-17	0.33	IN	RAIN	rain	2	DAY			
22.	7-8-17					7	DAY	67	98	F
23.	7-14-17	0.09	IN	RAIN	rain	1	DAY			
24.	7-15-17					7	DAY	60	91	F
25.	7-16-17	0.26	IN	RAIN	rain	1	DAY			
26.	7-19-17	0.22	IN	RAIN	rain	1	DAY			
27.	7-22-17					7	DAY	69	99	F
28.	7-23-17	0.37	IN	RAIN	rain	1	DAY			
29.	7-26-17	0.7	IN	RAIN	rain	2	DAY			
30.	7-29-17					7	DAY	61	83	F
31.	8-1-17	0.17	IN	RAIN	rain	1	DAY			
32.	8-1-17	0.34	IN	RAIN	rain	1	DAY			
33.	8-5-17					7	DAY	55	87	F
34.	8-6-17	0.06	IN	RAIN	rain	1	DAY			
35.	8-11-17	0.08	IN	RAIN	rain	1	DAY			
36.	8-11-17	0.09	IN	RAIN	rain	1	DAY			
37.	8-12-17					7	DAY	56	84	F
38.	8-14-17	0.3	IN	RAIN	rain	1	DAY			
39.	8-16-17	0.66	IN	RAIN	rain	2	DAY			
40.	8-19-17					7	DAY	56	94	F
41.	8-21-17	0.54	IN	RAIN	rain	2	DAY			
42.	8-26-17					7	DAY	56	86	F
43.	8-28-17	0.08	IN	RAIN	rain	1	DAY			
44.	9-2-17					7	DAY	47	95	F
45.	9-4-17	0.79	IN	RAIN	rain	1	DAY			
46.	9-9-17					7	DAY	57	83	F
47.	9-12-17	0.12	IN	RAIN	rain	2	DAY			
48.	9-16-17					7	DAY	61	95	F
49.	9-18-17	0.06	IN	RAIN	rain	1	DAY			
50.	9-23-17					7	DAY	49	93	F
51.	9-30-17					7	DAY	48	84	F
52.	10-3-17	0.38	IN	RAIN	rain	1	DAY			
53.	10-5-17	0.05	IN	RAIN	rain	1	DAY			
54.	10-7-17	0.13	IN	RAIN	rain	1	DAY			
55.	10-7-17					7	DAY	50	85	F
56.	10-9-17	0.3	IN	RAIN	rain	1	DAY			

57.	10-10-17	0.28	IN	RAIN	rain	1	DAY			
58.	10-14-17					7	DAY	40	88	F
59.	10-15-17	0.66	IN	RAIN	rain	1	DAY			
60.	10-21-17					7	DAY	36	79	F
61.	10-22-17	0.65	IN	RAIN	rain	2	DAY			
62.	10-28-17					7	DAY	25	76	F
63.	11-4-17					7	DAY	52	78	F

Comment:
Rainfall was recorded on station and provided by Illinois Climate Network. Air temperature was recorded at Scott Air Force Base 2.5 miles north and provided by NOAA's National Centers for Environmental Information. Air temperatures given are summarized as weekly high and low, detailed weather data is available on request.

Application Description

	A	B	C
Application Date:	6-2-17	6-16-17	6-22-17
Appl. Start Time:	6:25	10:48	6:25
Appl. Stop Time:	6:47	10:50	6:40
Interval to Prev. Appl., Unit:		14 DAYS	6 DAYS
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	2-4"G-1	2-4"G-2
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RLS	RLS	RLS
Air Temperature, Unit:	70 F	84 F	73 F
% Relative Humidity:	74	69	89
Wind Velocity, Unit:	0 MPH	6 MPH	6 MPH
Wind Direction:	NA	S	SE
Dew Presence (Y/N):	Y	N	Y
Soil Temperature, Unit:	71 F	75 F	76 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	0	0	70
Next Moisture Occurred On:	6-4-17	6-18-17	7-6-17
Time to Next Moisture, Unit:	55 HR	40 HR	2 WK

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	SORVU	SORVU	SORVU
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	V4	V4
Stage Minimum, Percent:		V3	V5
Stage Maximum, Percent:		V4	V4
Height, Unit:		4 IN	8 IN
Height Minimum, Maximum:		3.5 5	5 10

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	NA	6	7
Stage Minimum, Percent:		4	5
Stage Maximum, Percent:		10	8
Height, Unit:		1 IN	2 IN
Height Minimum, Maximum:		0.3 3	1.5 4
Density, Unit:		0.2 FT2	0.01 FT2
Pest 2 Code, Type, Scale:	PANDI W	PANDI W	PANDI W
Stage Majority, Percent:	NA	4	4
Stage Minimum, Percent:		2	2
Stage Maximum, Percent:		6	8
Height, Unit:		2.5 IN	4 IN
Height Minimum, Maximum:		0.2 4	0.5 4
Density, Unit:		20 FT2	0.2 FT2
Pest 3 Code, Type, Scale:	DIGIS W	DIGIS W	DIGIS W
Stage Majority, Percent:	NA	4	4
Stage Minimum, Percent:		4	4
Stage Maximum, Percent:		6	6
Height, Unit:		5 IN	5 IN
Height Minimum, Maximum:		3 6	3 6
Density, Unit:		0.01 FT2	0.01 FT2

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

Inzen Sorghum Weed Control.
Trial ID: 17-6B-E90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
	Pest Code													
	Crop Code									SORVU	SORVU	SORVU	SORVU	SORVU
	Rating Date													
	Rating Type									Injury	Injury	Injury	Injury	Injury
	Rating Unit									0-99	0-99	0-99	0-99	0-99
	Rating Timing													
	Trt-Eval Interval									0 DA-C	7 DA-B+C	14 DA-B+C	21 DA-B+C	28 DA-B+C
1	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A	0 c	41 b	29 b	11 b	10 b
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	PRE	A					
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C					
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C					
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C					
2	CINCH	7.64	SC	1.27	lb ai/a	1.33	pt/a	PRE	A	3 c	34 c	18 c	3 bc	5 bc
	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A					
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C					
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C					
3	CINCH ATZ	5.5	SC	1.38	lb ai/a	2	pt/a	PRE	A	0 c	34 c	21 c	8 bc	6 bc
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C					
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C					
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C					
4	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	2-4"G-1	B	49 a	49 a	66 a	56 a	31 a
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-1	B					
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-1	B					
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-1	B					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-1	B					
5	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A	0 c	39 bc	15 c	5 bc	5 bc
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C					
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C					
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C					
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C					
6	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	PRE	A	10 b	10 d	3 d	1 c	1 c
7	NONTREATED									0	0	0	0	0
	LSD P=.05									5.0	7.4	7.4	8.9	6.2
	Standard Deviation									3.3	4.9	4.9	5.9	4.1
	CV									32.55	14.36	19.47	42.51	41.95
	Replicate F									2.358	3.120	2.003	0.740	1.049
	Replicate Prob(F)									0.1127	0.0576	0.1569	0.5447	0.3996
	Treatment F									134.585	28.487	79.409	50.231	28.062
	Treatment Prob(F)									0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
Pest Code										PANDI	PANDI	PANDI	PANDI	PANDI	PANDI
Crop Code															
Rating Date															
Rating Type										Control	Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing															
Trt-Eval Interval										0 DA-C	7 DA-B+C	14 DA-B+C	21 DA-B+C	28 DA-B+C	42 DA-B+C
1	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A	91 b	95 b	99 a	99 a	99 a	98 a
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	PRE	A						
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C						
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C						
2	CINCH	7.64	SC	1.27	lb ai/a	1.33	pt/a	PRE	A	98 a	99 a	99 a	99 a	99 a	99 a
	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A						
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C						
3	CINCH ATZ	5.5	SC	1.38	lb ai/a	2	pt/a	PRE	A	95 a	97 ab	99 a	99 a	99 a	99 a
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C						
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C						
4	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	2-4"G-1	B	79 c	79 c	98 b	99 a	99 a	98 a
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-1	B						
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-1	B						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-1	B						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-1	B						
5	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A	97 a	98 ab	99 a	99 a	99 a	99 a
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C						
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C						
6	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	PRE	A	98 a	96 ab	95 c	91 b	91 b	83 b
7	NONTREATED									0	0	0	0	0	0
LSD P=.05										3.4	3.3	1.2	2.7	1.9	2.1
Standard Deviation										2.2	2.2	0.8	1.8	1.2	1.4
CV										2.42	2.3	0.8	1.82	1.26	1.49
Replicate F										1.548	1.200	1.323	1.000	1.066	1.148
Replicate Prob(F)										0.2434	0.3437	0.3039	0.4199	0.3929	0.3621
Treatment F										43.529	49.888	21.054	14.392	29.691	84.574
Treatment Prob(F)										0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
Pest Code										DIGIS	DIGIS	DIGIS	DIGIS
Crop Code													
Rating Date													
Rating Type										Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99
Rating Timing													
Trt-Eval Interval										14 DA-B+C	21 DA-B+C	28 DA-B+C	42 DA-B+C
1	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A	97 c	97 c	96 c	95 bc
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	PRE	A				
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C				
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C				
2	CINCH	7.64	SC	1.27	lb ai/a	1.33	pt/a	PRE	A	99 a	99 a	99 a	99 a
	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A				
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C				
3	CINCH ATZ	5.5	SC	1.38	lb ai/a	2	pt/a	PRE	A	99 ab	99 ab	98 ab	97 ab
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C				
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C				
4	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	2-4"G-1	B	97 bc	96 c	95 c	91 c
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-1	B				
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-1	B				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-1	B				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-1	B				
5	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A	99 a	99 a	99 ab	98 ab
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C				
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C				
6	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	PRE	A	98 abc	98 bc	97 bc	93 c
7	NONTREATED									0	0	0	0
LSD P=.05										1.5	1.5	2.2	3.8
Standard Deviation										1.0	1.0	1.5	2.6
CV										1.01	1.0	1.51	2.67
Replicate F										0.831	1.724	1.310	0.228
Replicate Prob(F)										0.4974	0.2049	0.3079	0.8755
Treatment F										3.592	6.586	6.151	5.503
Treatment Prob(F)										0.0246	0.0020	0.0027	0.0045

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
Pest Code										AMATA	AMATA	AMATA	AMATA	AMATA	AMATA
Crop Code															
Rating Date															
Rating Type										Control	Control	Control	Control	Control	Control
Rating Unit										0-99	0-99	0-99	0-99	0-99	0-99
Rating Timing															
Trt-Eval Interval										0 DA-C	7 DA-B+C	14 DA-B+C	21 DA-B+C	28 DA-B+C	42 DA-B+C
1	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A	99 a	98 a	96 a	93 b	90 b	84 b
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	PRE	A						
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C						
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C						
2	CINCH	7.64	SC	1.27	lb ai/a	1.33	pt/a	PRE	A	99 a	99 a	98 a	98 a	98 a	97 a
	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A						
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C						
3	CINCH ATZ	5.5	SC	1.38	lb ai/a	2	pt/a	PRE	A	99 a	99 a	99 a	99 a	99 a	99 a
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C						
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C						
4	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	2-4"G-1	B	99 a	99 a	99 a	99 a	99 a	98 a
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-1	B						
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-1	B						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-1	B						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-1	B						
5	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A	99 a	99 a	99 a	98 a	98 a	98 a
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C						
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C						
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C						
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C						
6	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	PRE	A	99 a	99 a	99 a	99 a	99 a	97 a
7	NONTREATED									0	0	0	0	0	0
LSD P=.05										0.3	1.2	2.2	1.7	2.0	4.4
Standard Deviation										0.2	0.8	1.5	1.1	1.3	2.9
CV										0.21	0.84	1.48	1.15	1.37	3.06
Replicate F										1.000	0.709	0.858	1.264	0.344	1.505
Replicate Prob(F)										0.4199	0.5618	0.4839	0.3224	0.7941	0.2538
Treatment F										1.000	2.101	2.898	15.382	25.575	14.595
Treatment Prob(F)										0.4509	0.1218	0.0502	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	SORVU 10-31-17 Yield bu/A Harvest	SORVU 10-31-17 Moisture Percent Harvest	SORVU 10-31-17 Test Weight lb/bu Harvest	SORVU 10-31-17 Weight lb/plot Harvest
Pest Code													
Crop Code													
Rating Date													
Rating Type													
Rating Unit													
Rating Timing													
Trt-Eval Interval													
1	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A	90 ab	14.9 a	58.5 a	16.0 ab
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	PRE	A				
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C				
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C				
2	CINCH	7.64	SC	1.27	lb ai/a	1.33	pt/a	PRE	A	98 a	15.3 a	58.1 a	17.4 a
	BASIS BLEND	30	SG	0.0234	lb ai/a	1.25	oz/a	PRE	A				
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C				
3	CINCH ATZ	5.5	SC	1.38	lb ai/a	2	pt/a	PRE	A	102 a	15.3 a	58.2 a	18.2 a
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C				
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C				
4	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	2-4"G-1	B	94 ab	15.1 a	58.2 a	16.6 ab
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-1	B				
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-1	B				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-1	B				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-1	B				
5	CINCH	7.64	SC	0.955	lb ai/a	1	pt/a	PRE	A	105 a	15.3 a	58.1 a	18.7 a
	ZEST WDG	75	WG	0.0314	lb ai/a	0.67	oz/a	2-4"G-2	C				
	AATREX 4L	4	SC	0.75	lb ai/a	0.75	qt/a	2-4"G-2	C				
	COC (PRIME OIL)	100	SL	2	% v/v	2	% v/v	2-4"G-2	C				
	AMS	100	SG	2	lb/a	2	lb/a	2-4"G-2	C				
6	CINCH ATZ	5.5	SC	2.2	lb ai/a	3.2	pt/a	PRE	A	78 b	14.9 a	58.4 a	13.9 b
7	NONTREATED									2 c	2.5 b	15.9 b	0.3 c
LSD P=.05										18.4	2.22	17.92	3.28
Standard Deviation										12.4	1.50	12.06	2.21
CV										15.26	11.24	23.1	15.27
Replicate F										2.994	1.067	0.991	3.058
Replicate Prob(F)										0.0581	0.3879	0.4192	0.0548
Treatment F										34.006	41.002	7.034	34.173
Treatment Prob(F)										0.0001	0.0001	0.0006	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Inzen Sorghum Weed Control.
Trial ID: 17-6B-E90 Location: Belleville Res. Center Trial Year: 2017
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: DuPont (USA-17-177).
2. Ratings:
   CI 0 DA-C rate all plots; CI 7, 14 and 28 DA-B+C rate on different dates in the same column.
   WC 0 DA-C rate all plots; WC 14, 28 and 42 DA-B+C rate on different dates in the same column.
   Rate before spray application C.
3. Yield if possible, do not sell grain.
4. Target annual grasses.
5. POST applications B+C apply at 2 inch grass and less than 12 inch sorghum.

Ratings dates are as follows:

	0 DA-C was rated 6/22.
7 DA-B was rated 6/22	**7 DA-C was rated 6/29.**
14 DA-B was rated 6/29	**14 DA-C was rated 7/6.**
21 DA-B was rated 7/6	**21 DA-C was rated 7/14.**
28 DA-B was rated 7/14	**28 DA-C was rated 7/20.**
42 DA-B was rated 7/28	**42 DA-B was rated 8/3.**

The PRE-only treatment (trt 6) was rated with the 'C' treatments.

Rainfall following the PRE application (applicaiton A) was 0.40" 55 hours after application. The next rainfall event following the PRE was 1.1" over 2 days begining on 6/14, 12 days after application.
Rainfall following application B was 0.66" on 6/18, 40 hours after application.
The first significant rainfall following POST application C did not occur until 7/6, two weeks after application.

Crop injury 0-DA-C was primarily intervienal chlorosis and stunting. At this rating the chlorosis was uniform throughout the field, including in the non-treated plots.
General chlorosis persisted throughtout the field through the 7/14 rating, though the stunting was confined to the treated plots.
At the 7/14 rating the chlorosis was no longer observed, thought the stunting injury continued to be rated in a number of plots.

Harvest area per plot = 27' x 5'.