Soybean Weed Control Studies

Southern Illinois University

Scepter Tank Mixtures for Early Preplant in No-Till Soybean.

Trial ID: 16-6C Location: Belleville Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 4-28-16
Completion Date: 6-20-16

Trial Location

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

Upper Right: 38.51495 -89.83753
Latitude of LL Corner °: 38.51463 N
Longitude of LL Corner °: 89.83814 W
Altitude of LL Corner, Unit: 434.00 FT
Angle y-axis to North °: 0.00
GPS Precision: G GPS for trial site

Objectives:
Evaluate fit and performance of Scepter combinations applied early preplant for efficacy and safety in 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: AG3832 **BBCH Scale:** BSOY
Description: RR2Y

Planting Date: 5-23-16
Planting Rate, Unit: 140000 S/A **Planting Method:** SEEDED
Depth, Unit: 1 IN
Row Spacing, Unit: 30 IN

Pest Description

Pest 1 Type: W **Code:** SETFA Setaria faberi Herrm.
Common Name: foxtail, giant

Pest 2 Type: W **Code:** PANDI Panicum dichotomiflorum Michx.
Common Name: panicum, fall

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

Pest 4 Type: W **Code:** AMATA Amaranthus rudis Sauer
Common Name: waterhemp, 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)
Untreated Arrangement: INCLUDED single control randomized in each block

No.	Previous Crop	Year
1.	GLXMA	2015

Maintenance

No.	Maintenance Product Name
1.	N 0 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

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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	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-1-16					7	DAY	32	75	F
2.	4-6-16	0.49	IN	RAIN	rain	1	DAY			
3.	4-8-16					7	DAY	28	71	F
4.	4-10-16	0.97	IN	RAIN	rain	2	DAY			
5.	4-15-16					7	DAY	48	81	F
6.	4-20-16	0.45	IN	RAIN	rain	3	DAY			
7.	4-22-16					7	DAY	47	85	F
8.	4-26-16	1.74	IN	RAIN	rain	2	DAY			
9.	4-29-16					7	DAY	46	75	F
10.	4-29-16	1.94	IN	RAIN	rain	2	DAY			
11.	5-4-16	0.02	IN	RAIN	rain	1	DAY			
12.	5-6-16					7	DAY	44	87	F
13.	5-7-16	0.07	IN	RAIN	rain	1	DAY			
14.	5-9-16	2.12	IN	RAIN	rain	5	DAY			
15.	5-13-16					7	DAY	41	76	F
16.	5-16-16	1.06	IN	RAIN	rain	2	DAY			
17.	5-20-16					7	DAY	51	83	F
18.	5-20-16	0.06	IN	RAIN	rain	1	DAY			
19.	5-25-16	0.68	IN	RAIN	rain	3	DAY			
20.	5-27-16					7	DAY	62	88	F
21.	5-31-16	0.03	IN	RAIN	rain	2	DAY			
22.	6-3-16					7	DAY	55	89	F
23.	6-3-16	0.01	IN	RAIN	rain	1	DAY			
24.	6-4-16	0.72	IN	RAIN	rain	1	DAY			
25.	6-10-16					7	DAY	65	96	F
26.	6-13-16	0.03	IN	RAIN	rain	1	DAY			
27.	6-17-16					7	DAY	67	97	F
28.	6-21-16	0.01	IN	RAIN	rain	1	DAY			

Application Description

	A
Application Date:	4-28-16
Appl. Start Time:	9:00
Appl. Stop Time:	9:30
Application Method:	Spray
Application Timing:	EPP14
Application Placement:	BROFOL
Applied By:	RFK
Air Temperature, Unit:	67 F
% Relative Humidity:	57
Wind Velocity, Unit:	4 MPH
Wind Direction:	W
Dew Presence (Y/N):	N
Soil Temperature, Unit:	65 F
Soil Moisture:	ABONOR
% Cloud Cover:	0
Next Moisture Occurred On:	4-29-16
Time to Next Moisture, Unit:	37 HR

Scepter Tank Mixtures for Early Preplant in No-Till Soybean.

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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:	SETFA W
Stage Majority, Percent:	2
Stage Minimum, Percent:	1
Stage Maximum, Percent:	2
Height, Unit:	0.5 IN
Height Minimum, Maximum:	0.125 0.5
Density, Unit:	0.01 FT2
Pest 2 Code, Type, Scale:	PANDI W
Stage Majority, Percent:	2
Stage Minimum, Percent:	1
Stage Maximum, Percent:	2
Height, Unit:	05 IN
Height Minimum, Maximum:	0.125 0.5
Density, Unit:	0.01 FT2
Pest 3 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	2
Stage Minimum, Percent:	1
Stage Maximum, Percent:	2
Height, Unit:	0.5 IN
Height Minimum, Maximum:	0.125 0.5
Density, Unit:	0.001 FT2
Pest 4 Code, Type, Scale:	AMATA 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:	7.5 FT
Spray Volume, Unit:	15 GPA

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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 5-30-16 Injury Percent 7 DAP 32 DA-A	GLXMA 6-6-16 Injury Percent 14 DAP 39 DA-A	GLXMA 6-20-16 Injury Percent 28 DAP 53 DA-A	SETFA 5-12-16 Control Percent 14 DA-A	SETFA 5-26-16 Control Percent 28 DA-A	SETFA 6-9-16 Control Percent 42 DA-A
1	NONTREATED									0	0	0	0	0	0
2	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
3	VALOR XLT	40.3	WG	0.126	lb ai/a	5	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
4	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
5	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	20	fl oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
6	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	20	fl oz/a	EPP14	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
7	TRIVENCE	61.3	WG	0.383	lb ai/a	10	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
8	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	GLORY	75	WG	0.375	lb ai/a	0.5	lb/a	EPP14	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
9	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
10	AUTHORITY XL	70	WG	0.282	lb ai/a	6.45	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
11	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
12	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
13	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	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 12,13,14,5,8,15,6,7,11 because error mean square = 0.

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14	AUTHORITY MTZ	45	WG	0.45	lb ai/a	16	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
15	AUTHORITY MTZ	45	WG	0.45	lb ai/a	16	oz/a	EPP14	A	0 a	0 a	0 a	99 a	99 a	99 a
	GLORY	75	WG	0.105	lb ai/a	0.14	lb/a	EPP14	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
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

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1	NONTREATED									0	0	0	0	0	0
2	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	99 a	97 b	90 a	99 a	97 ab	85 cd
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
3	VALOR XLT	40.3	WG	0.126	lb ai/a	5	oz/a	EPP14	A	99 a	99 a	97 a	99 a	99 ab	96 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
4	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	99 a	99 a	87 a	99 a	99 ab	96 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
5	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	99 a	99 a	82 a	99 a	97 abc	86 bcd
	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	20	fl oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
6	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	99 a	99 a	91 a	99 a	99 ab	95 a
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7	TRIVENCE	61.3	WG	0.383	lb ai/a	10	oz/a	EPP14	A	99 a	99 a	98 a	99 a	99 ab	93 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
8	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	EPP14	A	99 a	99 a	84 a	99 a	98 ab	93 ab
	GLORY	75	WG	0.375	lb ai/a	0.5	lb/a	EPP14	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
9	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	EPP14	A	99 a	99 a	94 a	99 a	96 bc	81 d
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
10	AUTHORITY XL	70	WG	0.282	lb ai/a	6.45	oz/a	EPP14	A	99 a	99 a	94 a	99 a	99 a	93 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
11	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	EPP14	A	99 a	98 ab	91 a	99 a	98 ab	92 ab
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
12	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	EPP14	A	99 a	99 a	79 a	99 a	95 c	83 d
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
13	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	EPP14	A	99 a	99 a	87 a	99 a	98 ab	90 abc
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						

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14	AUTHORITY MTZ	45	WG	0.45	lb ai/a	16	oz/a	EPP14	A	99 a	99 a	77 a	99 a	98 ab	81 d
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
15	AUTHORITY MTZ	45	WG	0.45	lb ai/a	16	oz/a	EPP14	A	99 a	99 a	79 a	99 a	99 ab	97 a
	GLORY	75	WG	0.105	lb ai/a	0.14	lb/a	EPP14	A						
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A						
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A						
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A						
LSD P=.05										.	1.2	22.9	.	2.4	6.6
Standard Deviation										0.0	0.8	16.0	0.0	1.7	4.6
CV										0.0	0.82	18.23	0.0	1.73	5.15
Replicate F										0.000	2.081	1.326	0.000	2.063	3.735
Replicate Prob(F)										1.0000	0.1184	0.2798	1.0000	0.1209	0.0188
Treatment F										0.000	2.006	0.754	0.000	2.038	5.860
Treatment Prob(F)										1.0000	0.0470	0.7002	1.0000	0.0433	0.0001

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	AMATA 5-26-16 Control Percent 28 DA-A	AMATA 6-9-16 Control Percent 42 DA-A
1	NONTREATED									0	0
2	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
3	VALOR XLT	40.3	WG	0.126	lb ai/a	5	oz/a	EPP14	A	99 a	97 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
4	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	99 a	97 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A		
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
5	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	99 a	93 a
	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	20	fl oz/a	EPP14	A		
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
6	VALOR SX	51	WG	0.096	lb ai/a	3	oz/a	EPP14	A	99 a	99 a
	DUAL II MAGNUM	7.64	EC	1.19	lb ai/a	20	fl oz/a	EPP14	A		
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A		
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
7	TRIVENCE	61.3	WG	0.383	lb ai/a	10	oz/a	EPP14	A	99 a	98 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
8	VALOR SX	51	WG	0.08	lb ai/a	2.5	oz/a	EPP14	A	99 a	97 a
	GLORY	75	WG	0.375	lb ai/a	0.5	lb/a	EPP14	A		
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A		
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
9	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	EPP14	A	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
10	AUTHORITY XL	70	WG	0.282	lb ai/a	6.45	oz/a	EPP14	A	99 a	99 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
11	SPARTAN 4F	4	SC	0.25	lb ai/a	8	fl oz/a	EPP14	A	99 a	99 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A		
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
12	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	EPP14	A	99 a	93 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
13	AUTHORITY ELITE	7	SC	1.31	lb ai/a	24	fl oz/a	EPP14	A	99 a	99 a
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A		
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	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 12,13,14,5,8,15,6,7,11 because error mean square = 0.

Scepter Tank Mixtures for Early Preplant in No-Till Soybean.

Trial ID: 16-6C Location: Belleville Res. Center Trial Year: 2016
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	AMATA 5-26-16 Control Percent 28 DA-A	AMATA 6-9-16 Control Percent 42 DA-A
14	AUTHORITY MTZ	45	WG	0.45	lb ai/a	16	oz/a	EPP14	A	99 a	97 a
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
15	AUTHORITY MTZ	45	WG	0.45	lb ai/a	16	oz/a	EPP14	A	99 a	99 a
	GLORY	75	WG	0.105	lb ai/a	0.14	lb/a	EPP14	A		
	SCEPTER	70	WG	0.092	lb ai/a	2.1	oz/a	EPP14	A		
	COC (PRIME OIL)	100	SL	1	% v/v	1	% v/v	EPP14	A		
	AMS	100	SG	1.02	% w/w	8.5	lb/100 gal	EPP14	A		
LSD P=.05										.	5.5
Standard Deviation										0.0	3.9
CV										0.0	3.97
Replicate F										0.000	0.394
Replicate Prob(F)										1.0000	0.7579
Treatment F										0.000	1.067
Treatment Prob(F)										1.0000	0.4140

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 12,13,14,5,8,15,6,7,11 because error mean square = 0.

Scepter Tank Mixtures for Early Preplant in No-Till Soybean.

Trial ID: 16-6C Location: Belleville Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: AMVAC (16C05H062).
2. Ratings:
   CI at 7, 14, and 28 DAP or DAE if slow to emerge.
   WC at 14, 28, and 42 DA-A.
3. Yield not requested.
4. Blanket burndown application of Roundup PowerMax (32 floz/A) plus 2,4-D (1 pt/A)
   was applied to all plots 10 ft wide at 28 days before planting on 4-13-16.
5. Application A (EPP14) = Early PrePlant 14 days before planting
   and 14 days after the blanket burndown.
   Planting was planned for 5-12-16 but was delayed 11 days dues to 3.18 inch of rain
   between 5-9-16 and 5-17-16.
6. Rainfall following the EPP14 application A was 1.94 inch over 2 days beginning 37 hours later.
7. GPS for the SW corner of the trial area was 38.51463, -89.83814
   GPS for the NE corner of the trial area was 38.51495, -89.83753
8. On 5-12-16 at 14 DA-A, AMATA had yet to in the nontreated plots and so could not be rated.
9. Written summary of assessments and deviations;

There was no soybean injury observed at any time and while we may expect some crop injury from these products (delayed emergence and stunting), the delayed planting due to wet soil conditions probably lowered the likelihood of injury. Planting planned for 14 days after application was made 25 days after application with 5.28 inches of rain during the interval. All treatments provided complete burndown control of the small (2 leaf and 0.5 inch) giant foxtail, fall panicum, and giant ragweed at 14 DA-A. All treatments provided complete residual control of giant foxtail up to the 42 DAT rating. Fall panicum control was similar through 28 DAT with only a few escapes. By 42 DAT fall panicum control varied by treatment though not statistically significant due to some plots where fall panicum control was 50-80 percent while other plots for the same treatment remained clean. There was no discernible pattern indicating that the addition of Scepter to other products changed the level of fall panicum control. However the addition of Scepter did significantly improve control of giant ragweed at 42 DAT in every treatment where it was added, bringing control to 90 percent or better. Control of waterhemp at 42 DAT followed a similar pattern to giant ragweed with less likelihood of waterhemp emergence when Scepter was added, though all treatments provided at least 90 percent control of waterhemp and differences were not statistically significant.