

Corn One-Pass Late-Postemergence Proof of Concept - Bayer.

Trial ID: 16-2A-W90 Location: Belleville Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final
Initiation Date: 5-31-16
Completion Date: 10-5-16

Trial Location

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

Objectives:

Evaluate potential tank-mix partners for use with Laudis and/or Liberty applied postemergence in corn for foliar and residual weed control.

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 Rate, Unit: 32000 S/A **Planting Date:** 5-31-16
Depth, Unit: 1.5 IN **Planting Method:** SEEDED
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 73 F
Soil Moisture: ABONOR

Pest Description

Pest 1 Type: W **Code:** PANDI *Panicum dichotomiflorum* Michx.
Common Name: panicum, fall
Pest 2 Type: W **Code:** AMBTR *Ambrosia trifida* L.
Common Name: ragweed, giant
Pest 3 Type: W **Code:** ABUTH *Abutilon theophrasti* Medik.
Common Name: velvetleaf
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: 28 FT **Total Plot Length:** 28 FT **Experimental Unit:** 1 PLOT
Tillage Type: REDTIL reduced-till
Replications: 3 **Study Design:** RACOB� 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 150 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

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Overall Moisture Conditions: NORMAL						Moisture and Weather Conditions				
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			
29.	6-24-16					7	DAY	57	95	F
30.	6-25-16	0.02	IN	RAIN	rain	1	DAY			
31.	6-30-16	0.03	IN	RAIN	rain	1	DAY			
32.	7-1-16					7	DAY	60	91	F
33.	7-1-16	2.26	IN	RAIN	rain	4	DAY			
34.	7-6-16	0.32	IN	RAIN	rain	3	DAY			
35.	7-8-16					7	DAY	67	93	F
36.	7-13-16	0.49	IN	RAIN	rain	2	DAY			
37.	7-15-16					7	DAY	68	93	F
38.	7-17-16	0.02	IN	RAIN	rain	1	DAY			
39.	7-19-16	1.47	IN	RAIN	rain	2	DAY			
40.	7-22-16					7	DAY	72	94	F
41.	7-25-16	0.1	IN	RAIN	rain	1	DAY			
42.	7-29-16					7	DAY	69	91	F
43.	7-31-16	0.52	IN	RAIN	rain	3	DAY			
44.	8-3-16	0.75	IN	RAIN	rain	1	DAY			
45.	8-5-16					7	DAY	66	93	F
46.	8-5-16	0.06	IN	RAIN	rain	1	DAY			
47.	8-12-16					7	DAY	68	91	F
48.	8-12-16	4.85	IN	RAIN	rain	5	DAY			
49.	8-19-16					7	DAY	57	93	F

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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:	6-17-16
Appl. Start Time:	14:05
Appl. Stop Time:	14:55
Application Method:	Spray
Application Timing:	2-4"W
Application Placement:	BROFOL
Applied By:	MCG
Air Temperature, Unit:	87 F
% Relative Humidity:	50
Wind Velocity, Unit:	5 MPH
Wind Direction:	NNE
Dew Presence (Y/N):	N
Soil Temperature, Unit:	80 F
Soil Moisture:	BELNOR
% Cloud Cover:	10
Next Moisture Occurred On:	6-30-16
Time to Next Moisture, Unit:	13 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:	12 IN
Height Minimum, Maximum:	10 12

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Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	PANDI W
Stage Majority, Percent:	2
Stage Minimum, Percent:	2
Stage Maximum, Percent:	3
Height, Unit:	2 IN
Height Minimum, Maximum:	1 3
Density, Unit:	20 FT2
Pest 2 Code, Type, Scale:	AMBTR W
Stage Majority, Percent:	6
Stage Minimum, Percent:	4
Stage Maximum, Percent:	8
Height, Unit:	3 IN
Height Minimum, Maximum:	2 4
Density, Unit:	0.5 FT2
Pest 3 Code, Type, Scale:	ABUTH W
Stage Majority, Percent:	4
Stage Minimum, Percent:	4
Stage Maximum, Percent:	6
Height, Unit:	2 IN
Height Minimum, Maximum:	1 3
Density, Unit:	0.5 FT2
Pest 4 Code, Type, Scale:	AMATA W
Stage Majority, Percent:	6
Stage Minimum, Percent:	4
Stage Maximum, Percent:	8
Height, Unit:	2 IN
Height Minimum, Maximum:	1 3
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
Boom Length, Unit:	7.5 FT
Spray Volume, Unit:	15 GPA

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Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	ZEAMD 10-5-16 Moisture Percent	ZEAMD 10-5-16 Test wt. lb/bu	ZEAMD 10-5-16 Yield bu/A	ZEAMD 6-24-16 Injury Percent	ZEAMD 7-1-16 Injury Percent			
										7 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									17.3 a	54.6 a	82 a	10	0
2	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"	W A	16.6 a	55.0 a	126 a	5 a	0 b
	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	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"	W A	17.2 a	54.7 a	140 a	10 a	2 b
	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					
4	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2-4"	W A	16.4 a	55.1 a	114 a	9 a	20 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"	W A					
	MSO	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					
5	LAUDIS	3.5	SC	0.0684	lb ai/a	2.5	fl oz/a	2-4"	W A	16.9 a	54.8 a	118 a	22 a	17 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"	W A					
	MSO	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					
6	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"	W A	16.0 a	55.4 a	131 a	4 a	3 b
	OUTLOOK	6	EC	0.656	lb ai/a	14	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	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"	W A	17.0 a	54.8 a	112 a	8 a	0 b
	WARRANT	3	CS	1.13	lb ai/a	48	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					
8	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"	W A	16.2 a	55.3 a	123 a	7 a	2 b
	CADOU SC	4.17	SC	0.446	lb ai/a	13.7	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	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"	W A	16.3 a	55.3 a	120 a	1 a	0 b
	LAUDIS	3.5	SC	0.0684	lb ai/a	2.5	fl oz/a	2-4"	W A					
	OUTLOOK	6	EC	0.656	lb ai/a	14	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	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"	W A	16.6 a	55.0 a	118 a	1 a	0 b
	LAUDIS	3.5	SC	0.0684	lb ai/a	2.5	fl oz/a	2-4"	W A					
	WARRANT	3	CS	1.13	lb ai/a	48	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	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"	W A	16.7 a	55.0 a	115 a	6 a	2 b
	LAUDIS	3.5	SC	0.0684	lb ai/a	2.5	fl oz/a	2-4"	W A					
	CADOU SC	4.17	SC	0.446	lb ai/a	13.7	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 21 because error mean square = 0.

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Pest Code								ZEAMD	ZEAMD	ZEAMD	ZEAMD	ZEAMD	
Crop Code								10-5-16	10-5-16	10-5-16	6-24-16	7-1-16	
Rating Date								Moisture	Test wt.	Yield	Injury	Injury	
Rating Type								Percent	lb/bu	bu/A	Percent	Percent	
Rating Unit											7 DA-A	14 DA-A	
Rating Timing													
Trt-Eval Interval													
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Unit	Appl Code					
12	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 fl oz/a	2-4"W	A		16.1 a	55.3 a	124 a	2 a	0 b
	LAUDIS	3.5	SC	0.082 lb ai/a	3 fl oz/a	2-4"W	A						
	OUTLOOK	6	EC	0.656 lb ai/a	14 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						
13	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 fl oz/a	2-4"W	A		16.1 a	55.3 a	120 a	2 a	0 b
	LAUDIS	3.5	SC	0.082 lb ai/a	3 fl oz/a	2-4"W	A						
	WARRANT	3	CS	1.13 lb ai/a	48 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						
14	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 fl oz/a	2-4"W	A		16.1 a	55.3 a	126 a	1 a	0 b
	LAUDIS	3.5	SC	0.082 lb ai/a	3 fl oz/a	2-4"W	A						
	CADOU SC	4.17	SC	0.446 lb ai/a	13.7 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						
15	ARMEZON	2.8	SL	0.0125 lb ai/a	0.57 fl oz/a	2-4"W	A		16.7 a	55.0 a	100 a	6 a	2 b
	OUTLOOK	6	EC	0.656 lb ai/a	14 fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5 lb ai/a	16 fl oz/a	2-4"W	A						
	NIS	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						
LSD P=.05								0.97	0.57	28.5	11.9	9.5	
Standard Deviation								0.58	0.34	17.1	7.1	5.7	
CV								3.51	0.62	14.47	121.77	170.69	
Replicate F								1.787	1.822	0.489	5.155	3.218	
Replicate Prob(F)								0.1861	0.1803	0.6186	0.0130	0.0564	
Treatment F								1.561	1.565	1.868	1.835	3.881	
Treatment Prob(F)								0.1534	0.1520	0.0776	0.0910	0.0016	

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Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	PANDI	PANDI	PANDI	AMBTR	AMBTR	AMBTR
							7-1-16 Control Percent	7-15-16 Control Percent	7-29-16 Control Percent	7-1-16 Control Percent	7-15-16 Control Percent	7-29-16 Control Percent
							14 DA-A	28 DA-A	42 DA-A	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
2	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"W	A	91 c	88 c	83 cd
	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			97 a
3	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	A	96 ab	91 abc	90 a-d
	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			97 a
4	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2-4"W	A	0 d	5 d	0 e
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	MSO	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			99 a
5	LAUDIS	3.5	SC	0.0684	lb ai/a	2.5	fl oz/a	2-4"W	A	0 d	0 d	0 e
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A			
	MSO	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			99 a
6	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	A	98 a	94 abc	94 ab
	OUTLOOK	6	EC	0.656	lb ai/a	14	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			98 a
7	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	A	95 ab	96 ab	92 abc
	WARRANT	3	CS	1.13	lb ai/a	48	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			98 a
8	LIBERTY 280	2.34	EC	0.53	lb ai/a	29	fl oz/a	2-4"W	A	97 ab	96 ab	90 a-d
	CADOU SC	4.17	SC	0.446	lb ai/a	13.7	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			96 a
9	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"W	A	96 ab	96 ab	92 abc
	LAUDIS	3.5	SC	0.0684	lb ai/a	2.5	fl oz/a	2-4"W	A			
	OUTLOOK	6	EC	0.656	lb ai/a	14	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			98 a
10	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"W	A	94 bc	90 bc	82 d
	LAUDIS	3.5	SC	0.0684	lb ai/a	2.5	fl oz/a	2-4"W	A			
	WARRANT	3	CS	1.13	lb ai/a	48	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			98 a
11	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"W	A	97 ab	93 abc	89 a-d
	LAUDIS	3.5	SC	0.0684	lb ai/a	2.5	fl oz/a	2-4"W	A			
	CADOU SC	4.17	SC	0.446	lb ai/a	13.7	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			98 a

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Corn One-Pass Late-Postemergence Proof of Concept - Bayer.

Trial ID: 16-2A-W90 Location: Belleville Res. Center Trial Year: 2016
 Investigator: Karla L. Gage, Ph.D.

Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	PANDI	PANDI	PANDI	AMBTR	AMBTR	AMBTR
							7-1-16 Control Percent	7-15-16 Control Percent	7-29-16 Control Percent	7-1-16 Control Percent	7-15-16 Control Percent	7-29-16 Control Percent
							14 DA-A	28 DA-A	42 DA-A	14 DA-A	28 DA-A	42 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Unit	Growth Stage	Appl Code				
12	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 fl oz/a		2-4"W	A	98 a	98 a	98 a	97 a
	LAUDIS	3.5	SC	0.082 lb ai/a	3 fl oz/a		2-4"W	A				
	OUTLOOK	6	EC	0.656 lb ai/a	14 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				
13	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 fl oz/a		2-4"W	A	97 ab	96 ab	93 abc	98 a
	LAUDIS	3.5	SC	0.082 lb ai/a	3 fl oz/a		2-4"W	A				
	WARRANT	3	CS	1.13 lb ai/a	48 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				
14	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 fl oz/a		2-4"W	A	98 a	95 abc	95 ab	98 a
	LAUDIS	3.5	SC	0.082 lb ai/a	3 fl oz/a		2-4"W	A				
	CADOU SC	4.17	SC	0.446 lb ai/a	13.7 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				
15	ARMEZON	2.8	SL	0.0125 lb ai/a	0.57 fl oz/a		2-4"W	A	97 ab	95 abc	87 bcd	98 a
	OUTLOOK	6	EC	0.656 lb ai/a	14 fl oz/a		2-4"W	A				
	AATREX 4L	4	SC	0.5 lb ai/a	16 fl oz/a		2-4"W	A				
	NIS	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				
LSD P=.05									3.8	7.7	9.5	2.5
Standard Deviation									2.3	4.6	5.6	1.5
CV									2.75	5.67	7.27	1.51
Replicate F									3.357	5.232	3.787	6.054
Replicate Prob(F)									0.0505	0.0123	0.0360	0.0069
Treatment F									712.280	158.607	103.596	0.791
Treatment Prob(F)									0.0001	0.0001	0.0001	0.6627

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Corn One-Pass Late-Postemergence Proof of Concept - Bayer.

Trial ID: 16-2A-W90 Location: Belleville Res. Center Trial Year: 2016
 Investigator: Karla L. Gage, Ph.D.

Pest Code							ABUTH	ABUTH	ABUTH	AMATA	AMATA	AMATA
Crop Code							7-1-16	7-15-16	7-29-16	7-1-16	7-15-16	7-29-16
Rating Date							Control	Control	Control	Control	Control	Control
Rating Type							Percent	Percent	Percent	Percent	Percent	Percent
Rating Unit							14 DA-A	28 DA-A	42 DA-A	14 DA-A	28 DA-A	42 DA-A
Rating Timing												
Trt-Eval Interval												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Other Rate	Other Rate	Growth Unit	Appl Stage	Code			
1	NONTREATED									0	0	0
2	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 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				
	AMS - LIQUID	100	SL	2.5 % v/v	2.5 % v/v	2.4"	W	A				
3	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 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				
	AMS - LIQUID	100	SL	2.5 % v/v	2.5 % v/v	2.4"	W	A				
4	LAUDIS	3.5	SC	0.082 lb ai/a	3 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				
	MSO	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				
5	LAUDIS	3.5	SC	0.0684 lb ai/a	2.5 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				
	MSO	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				
6	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	2.4"	W	A		99 a	99 a	99 a
	OUTLOOK	6	EC	0.656 lb ai/a	14 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	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	2.4"	W	A		99 a	99 a	99 a
	WARRANT	3	CS	1.13 lb ai/a	48 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				
8	LIBERTY 280	2.34	EC	0.53 lb ai/a	29 fl oz/a	2.4"	W	A		99 a	99 a	99 a
	CADOU SC	4.17	SC	0.446 lb ai/a	13.7 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	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 fl oz/a	2.4"	W	A		99 a	99 a	99 a
	LAUDIS	3.5	SC	0.0684 lb ai/a	2.5 fl oz/a	2.4"	W	A				
	OUTLOOK	6	EC	0.656 lb ai/a	14 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	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 fl oz/a	2.4"	W	A		99 a	99 a	99 a
	LAUDIS	3.5	SC	0.0684 lb ai/a	2.5 fl oz/a	2.4"	W	A				
	WARRANT	3	CS	1.13 lb ai/a	48 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	LIBERTY 280	2.34	EC	0.402 lb ai/a	22 fl oz/a	2.4"	W	A		99 a	99 a	99 a
	LAUDIS	3.5	SC	0.0684 lb ai/a	2.5 fl oz/a	2.4"	W	A				
	CADOU SC	4.17	SC	0.446 lb ai/a	13.7 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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Trial ID: 16-2A-W90 Location: Belleville Res. Center Trial Year: 2016
 Investigator: Karla L. Gage, Ph.D.

								ABUTH	ABUTH	ABUTH	AMATA	AMATA	AMATA		
								7-1-16	7-15-16	7-29-16	7-1-16	7-15-16	7-29-16		
								Control	Control	Control	Control	Control	Control		
								Percent	Percent	Percent	Percent	Percent	Percent		
								14 DA-A	28 DA-A	42 DA-A	14 DA-A	28 DA-A	42 DA-A		
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code						
12	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"W	A	99 a	99 a	99 a	99 a	98 a	97 a
	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2-4"W	A						
	OUTLOOK	6	EC	0.656	lb ai/a	14	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						
13	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"W	A	98 a	98 a	99 a	99 a	99 a	99 a
	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2-4"W	A						
	WARRANT	3	CS	1.13	lb ai/a	48	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						
14	LIBERTY 280	2.34	EC	0.402	lb ai/a	22	fl oz/a	2-4"W	A	99 a	99 a	99 a	99 a	98 a	99 a
	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	2-4"W	A						
	CADOU SC	4.17	SC	0.446	lb ai/a	13.7	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						
15	ARMEZON	2.8	SL	0.0125	lb ai/a	0.57	fl oz/a	2-4"W	A	99 a	99 a	99 a	99 a	98 a	99 a
	OUTLOOK	6	EC	0.656	lb ai/a	14	fl oz/a	2-4"W	A						
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	2-4"W	A						
	NIS	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						
LSD P=.05								0.6	0.5	.	0.3	3.0	3.0		
Standard Deviation								0.4	0.3	0.0	0.2	1.8	1.8		
CV								0.37	0.31	0.0	0.16	1.82	1.8		
Replicate F								4.452	1.000	0.000	1.000	1.844	5.404		
Replicate Prob(F)								0.0217	0.3816	1.0000	0.3816	0.1782	0.0109		
Treatment F								1.000	1.000	0.000	1.000	1.296	1.266		
Treatment Prob(F)								0.4786	0.4786	1.0000	0.4786	0.2763	0.2931		

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Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: Bayer (WMS). Do not tour.
2. Ratings:
CI 7 and 14 DA-A.
WC 14, 28, and 42 DA-A.
3. Yield if possible, check for CADOU SC labeling else do not sell grain from some plots in USA.
4. Application A, spray before corn is past V5-V6.
5. Report early results by Aug 28.
6. Photos 14 and 42 DA-A, and any CI as closeups.
7. Rainfall following the 2-4"W application A was 2.61 inch over 9 days beginning 13 days later.
8. Crop injury 7 DA-A was primarily due to drought stress rather than herbicide injury; nontreated plots were rated for crop injury at this timing as well.
Crop injury 14 DA-A is stunt and chlorosis.
9. Harvested 10-5-16, (2) 30 inch rows by 25 ft.