

DuPont Palmer Control Demonstration.

Trial ID: 14-COL-DuPont-Demo-SW100 Location: Collinsville, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Trial Status: F one-year/final Initiation Date: 6-3-14 Completion Date: 8-6-14		Trial Location
City: Collinsville Country: USA State/Prov.: Illinois IL Postal Code: 62234		

Objectives:
Demonstrate Palmer amaranth control with DuPont soybean herbicides.

Study Director: Ronald F. Krausz Organization: Belleville Research Center - Southern Illinois Univ Carbondale Address: 2036 Charles Lane City+State/Prov: Belleville, IL Postal Code: 62221 Country: USA		Contacts Title: Researcher/Farm Manager Phone No.: 618-566-4761 E-mail: rkrausz@siu.edu
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Crop 1: GLXMA Glycine max Soybean Variety: AG3832 BBCH Scale: BSOY Description: RR2Y		Crop Description
Planting Rate, Unit: 140000 S/A Depth, Unit: 1 IN Row Spacing, Unit: 30 IN		
Planting Date: 6-3-14 Planting Method: SEEDED		

Pest 1 Type: W Code: AMAPA Amaranthus palmeri S.Wats. Common Name: amaranth, Palmer Description: glyphosate-resistant Palmer amaran h		Pest Description
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Treated Plot Width: 10FT Total Plot Width: 20FT Treated Plot Length: 25FT Total Plot Length: 25FT		Site and Design Site Type: FIELD Experimental Unit: 1 PLOT Tillage Type: REDTIL reduced-till Study Design: RACOB L Randomized Complete Block (RCB)						
Replications: 1 Untreated Arrangement: INCLUDED single control randomized in each block								
<table border="1"> <thead> <tr> <th>No.</th> <th>Previous Crop</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>GLXMA</td> <td>2013</td> </tr> </tbody> </table>			No.	Previous Crop	Year	1.	GLXMA	2013
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1.	GLXMA	2013						

Maintenance				
<table border="1"> <thead> <tr> <th>No.</th> <th>Maintenance Product Name</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A</td> </tr> </tbody> </table>	No.	Maintenance Product Name	1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A
No.	Maintenance Product Name			
1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A			

% Sand: 14 % OM: 2.8 Texture: SIL silt loam % Silt: 70 pH: 7.07 Soil Name: Littleton/Haymond/Orion % Clay: 16 CEC: 11.2		Soil Description								
Additional Measured Elements										
<table border="1"> <thead> <tr> <th>Element</th> <th>Quantity</th> <th>Unit</th> </tr> </thead> <tbody> <tr> <td>P1</td> <td>63</td> <td>lb/A</td> </tr> <tr> <td>K</td> <td>346</td> <td>lb/A</td> </tr> </tbody> </table>			Element	Quantity	Unit	P1	63	lb/A	K	346
Element	Quantity	Unit								
P1	63	lb/A								
K	346	lb/A								

Overall Moisture Conditions: NORMAL Closest Weather Station: WatchDog on-site		Moisture and Weather Conditions Distance, Unit: 0.5 MI
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No.	Date	Amount	Unit	Type	Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-6-14					7	DAY	56	86	F
2.	5-8-14	0.13	IN	RAIN	rain	2	DAY			
3.	5-12-14	0.88	IN	RAIN	rain	4	DAY			
4.	5-13-14					7	DAY	37	76	F
5.	5-20-14					7	DAY	55	87	F
6.	5-21-14	0.06	IN	RAIN	rain	1	DAY			
7.	5-25-14	0.49	IN	RAIN	rain	2	DAY			
8.	5-27-14	0.08	IN	RAIN	rain	2	DAY			
9.	5-27-14					7	DAY	60	86	F
10.	5-31-14	0.14	IN	RAIN	rain	1	DAY			
11.	6-2-14	0.27	IN	RAIN	rain	1	DAY			
12.	6-3-14					7	DAY	62	91	F
13.	6-4-14	1.46	IN	RAIN	rain	1	DAY			
14.	6-7-14	0.22	IN	RAIN	rain	1	DAY			
15.	6-8-14	0.01	IN	RAIN	rain	1	DAY			
16.	6-9-14	0.6	IN	RAIN	rain	1	DAY			
17.	6-10-14	0.79	IN	RAIN	rain	1	DAY			
18.	6-10-14					7	DAY	54	90	F
19.	6-12-14	0.3	IN	RAIN	rain	1	DAY			
20.	6-13-14	0.01	IN	RAIN	rain	1	DAY			
21.	6-16-14	0.01	IN	RAIN	rain	1	DAY			
22.	6-17-14					7	DAY	67	94	F
23.	6-20-14	0.01	IN	RAIN	rain	1	DAY			
24.	6-21-14	0.39	IN	RAIN	rain	1	DAY			
25.	6-22-14	0.09	IN	RAIN	rain	1	DAY			
26.	6-23-14	0.02	IN	RAIN	rain	1	DAY			
27.	6-24-14	0.08	IN	RAIN	rain	1	DAY			
28.	6-24-14					7	DAY	67	92	F
29.	6-27-14	0.02	IN	RAIN	rain	1	DAY			
30.	7-1-14					7	DAY	56	92	F
31.	7-3-14	0.02	IN	RAIN	rain	1	DAY			
32.	7-7-14	0.03	IN	RAIN	rain	1	DAY			
33.	7-8-14	0.48	IN	RAIN	rain	1	DAY			
34.	7-8-14					7	DAY	59	95	F
35.	7-13-14	0.23	IN	RAIN	rain	1	DAY			
36.	7-14-14	0.2	IN	RAIN	rain	1	DAY			
37.	7-15-14	0.01	IN	RAIN	rain	1	DAY			
38.	7-15-14					7	DAY	54	90	F
39.	7-22-14					7	DAY	55	100	F
40.	7-25-14	0.03	IN	RAIN	rain	1	DAY			
41.	7-29-14					7	DAY	51	93	F
42.	8-5-14	0.33	IN	RAIN	rain	1	DAY			
43.	8-5-14					7	DAY	67	90	F
44.	8-6-14	0.08	IN	RAIN	rain	1	DAY			
45.	8-7-14	1.85	IN	RAIN	rain	1	DAY			
46.	8-8-14	0.65	IN	RAIN	rain	1	DAY			
47.	8-12-14					7	DAY	56	87	F
48.	8-15-14	0.01	IN	RAIN	rain	1	DAY			
49.	8-16-14	0.73	IN	RAIN	rain	1	DAY			
50.	8-17-14	0.7	IN	RAIN	rain	1	DAY			
51.	8-19-14					7	DAY	67	95	F
52.	8-20-14	0.76	IN	RAIN	rain	1	DAY			

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Application Description

	A	B	C
Application Date:	6-3-14	6-30-14	7-9-14
Appl. Start Time:	19:30	7:30	13:50
Appl. Stop Time:	19:45	7:40	14:00
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	V3	4"W
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	EAE	RJW	MEJ
Air Temperature, Unit:	89 F	78 F	85 F
% Relative Humidity:	60	97	98
Wind Velocity, Unit:	1 MPH	3 MPS	7 MPH
Wind Direction:	E	S	W
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	82 F	78 F	75 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	30	10	10
Next Moisture Occurred On:	6-4-14	7-7-14	7-14-14
Time to Next Moisture, Unit:	16 HR	7 DAY	5 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	V3	R1
Stage Minimum, Percent:		V3	R1
Stage Maximum, Percent:		V3	R1
Height, Unit:		6 IN	12 IN
Height Minimum, Maximum:		4 6	6 12

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Stage Majority, Percent:	NA	6	15
Stage Minimum, Percent:		6	8
Stage Maximum, Percent:		8	20
Height, Unit:		2 IN	6 IN
Height Minimum, Maximum:		2 3	2.5 8
Density, Unit:		0.01 FT2	0.001 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:	6.67 FT	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Southern Illinois University

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							GLXMA 6-30-14 Injury Percent 0 DA-B	GLXMA 7-1-14 Injury Percent 28 DAP	GLXMA 7-9-14 Injury Percent 36 DA-A 0 DA-C	GLXMA Injury Percent 28 DA-B 28 DA-C	AMAPA-HR 6-30-14 Control Percent 0 DA-B	AMAPA-HR 7-1-14 Control Percent 28 DAP	AMAPA-HR 7-9-14 Control Percent 36 DA-A 0 DA-C	AMAPA-HR Control Percent 28 DA-B 28 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	NONTREATED								0	0	0	0	0	0
2	TRIVENCE	61.3	WG	0.307 lb ai/a	8 oz/a		PRE	A	25	25	.	0	98	98
	CINCH	7.64	SC	0.955 lb ai/a	1 pt/a		V3	B						
	COBRA	2	EC	0.188 lb ai/a	12 fl oz/a		V3	B						
	ABUNDIT EXTRA	3	SL	0.75 lb ae/a	32 fl oz/a		V3	B						
3	ZIDUA	85	WG	0.08 lb ai/a	1.5 oz/a		PRE	A	25	25	25	0	99	99
	TRIVENCE	61.3	WG	0.307 lb ai/a	8 oz/a		PRE	A						
	COBRA	2	EC	0.188 lb ai/a	12 fl oz/a		4"W	C						
	ABUNDIT EXTRA	3	SL	0.75 lb ae/a	32 fl oz/a		4"W	C						
4	CANOPY	75	WG	0.188 lb ai/a	4 oz/a		PRE	A	10	10	10	0	98	98
	CINCH	7.64	SC	1.43 lb ai/a	1.5 pt/a		PRE	A						
	COBRA	2	EC	0.188 lb ai/a	12 fl oz/a		4"W	C						
	ABUNDIT EXTRA	3	SL	0.75 lb ae/a	32 fl oz/a		4"W	C						
LSD (P=.05)									.	.	.	.	.	.
Standard Deviation									.	.	.	.	.	.
CV									.	.	.	.	.	.

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

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Trial Comments

1. Protocol: DuPont (Palmer Demo).
2. Ratings: CI 28 DAP, CI 0 and 28 DA-B, and CI 0 and 28 DA-C.
WC 28 DAP, WC 0 and 28 DA-B, and WC 0 and 28 DA-C.
Rate PREs before applying POSTs.
3. Yield not requested.
4. Photos at POST applications for signage.
5. Blanket at PRE timing (start-clean) of Gramoxone (3 pt/A) was applied to all plots on 6-5-14.
6. AMAPA-HR = Herbicide-resistant Palmer amaranth (glyphosate).
7. Rainfall following the PRE application was 3.08 inch within the next week.
8. Ratings on 7-9-14 at 0 DA-C was also 9 DA-B for treatment 2, but too soon
after application B to rate, thus missing data.
Ratings at 28 DA-B and 28 DA-C were on 7-28-14, and 8-6-14, respectively.
9. Not harvested.