

ADAMA Soybean Concepts - PRE and POST Programs.

Trial ID: 14-COL-MANA_PRE_POST-140 Location: Collinsville, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Trial Status: F one-year/final Initiation Date: 6-3-14 Completion Date: 8-26-14	Trial Location City: Collinsville Country: USA State/Prov.: Illinois IL Postal Code: 62234
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Objectives:
Evaluate crop response and weed control of MANA soybean herbicides applied preemergence and postemergence.

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 Planting Rate, Unit: 140000 S/A Depth, Unit: 1 IN Row Spacing, Unit: 30 IN	Crop Description Planting Date: 6-3-14 Planting Method: SEEDED
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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: 6.67 FT Total Plot Width: 10 FT Treated Plot Length: 25 FT Total Plot Length: 25 FT Replications: 4 Untreated Arrangement: INCLUDED single control randomized in each block	Site and Design Site Type: FIELD Experimental Unit: 1 PLOT Tillage Type: REDTIL reduced-till Study Design: RACOB L Randomized Complete Block (RCB)
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No.	Previous Crop	Year
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> <tr> <td>2.</td> <td></td> </tr> </tbody> </table>	No.	Maintenance Product Name	1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A	2.	
No.	Maintenance Product Name					
1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A					
2.						

% 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
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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	6-27-14	6-27-14
Appl. Start Time:	19:15	11:00	11:00
Appl. Stop Time:	20:00	11:30	11:30
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	V3-1	V3-2
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	LXF&RJW	RJW	RJW
Air Temperature, Unit:	89 F	82 F	82 F
% Relative Humidity:	60	60	60
Wind Velocity, Unit:	1 MPH	4 MPH	4 MPH
Wind Direction:	E	S	S
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	82 F	82 F	82 F
Soil Moisture:	NORMAL	NORMAL	NORMAL
% Cloud Cover:	30	30	30
Next Moisture Occurred On:	6-4-14	7-8-14	7-8-14
Time to Next Moisture, Unit:	15 HR	11 DAY	11 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	V3
Stage Minimum, Percent:		V3	V3
Stage Maximum, Percent:		V3	V3
Height, Unit:		8 IN	8 IN
Height Minimum, Maximum:		6 8	6 8

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W	AMAPA W
Stage Majority, Percent:	NA	16	16
Stage Minimum, Percent:		8	8
Stage Maximum, Percent:		20	20
Height, Unit:		6 IN	6 IN
Height Minimum, Maximum:		4 10	4 10

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

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing							GLXMA 6-6-14 Injury Percent	GLXMA 6-10-14 Injury Percent	GLXMA 6-17-14 Injury Percent	GLXMA 6-24-14 Injury Percent -3 DA-B	GLXMA 7-1-14 Injury Percent 4 DA-C	GLXMA 7-29-14 Injury Percent 32 DA-B
Trt-Eval Interval							3 DA-A	7 DA-A	14 DA-A	21 DA-A	28 DA-A	56 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	PREFIX	5.29	EC	1.32 lb ai/a	2 pt/a		PRE	A	0 a	0 a	0 e	0 f
2	PUMMEL	100	SL	1.5 pt/a	1.5 pt/a		PRE	A	0 a	0 a	0 e	0 f
3	PUMMEL ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 SL 4.5 SL 100 SL 100 SL		1.5 pt/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	1.5 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B				0 a
4	PUMMEL	100	SL	2 pt/a	2 pt/a		PRE	A	0 a	0 a	0 e	0 f
5	PUMMEL ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 SL 4.5 SL 100 SL 100 SL		2 pt/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	2 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B				0 a
6	PUMMEL GLORY	100 SL 75 WG		2 pt/a 0.188 lb ai/a	2 pt/a 4 oz/a		PRE PRE	A A	0 a	0 a	0 e	0 f
7	PUMMEL RUMBLE	100 SL 1.88 EC		2 pt/a 0.235 lb ai/a	2 pt/a 1 pt/a		PRE PRE	A A	0 a	0 a	0 e	0 f
8	PUMMEL RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 SL 1.88 EC 4.5 SL 100 SL 100 SL		2 pt/a 0.235 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	2 pt/a 1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1 V3-1	B B B B B				0 a
9	MILTIA	100	WG	3.2 oz/a	3.2 oz/a		PRE	A	0 a	0 a	0 e	0 f
10	MILTIA	100	WG	4.25 oz/a	4.25 oz/a		PRE	A	0 a	0 a	2 de	0 f
11	TORMENT	2.5	SL	0.312 lb ae/a	1 pt/a		PRE	A	0 a	0 a	0 e	0 f
12	TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	2.5 SL 4.5 SL 100 SL 100 SL		0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B				0 a
13	PARALLEL GLORY TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	7.8 EC 75 WG 2.5 SL 4.5 SL 100 SL 100 SL		1.22 lb ai/a 0.28 lb ai/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	20 fl oz/a 6 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		PRE PRE V3-2 V3-2 V3-2 V3-2	A A C C C C	0 a	0 a	0 e	0 f
14	RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	1.88 EC 4.5 SL 100 SL 100 SL		0.235 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B				0 a
15	WARRANT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	3 CS 4.5 SL 100 SL 100 SL		1.13 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	3 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B				0 a
16	COBRA ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	2 EC 4.5 SL 100 SL 100 SL		0.094 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	6 fl oz/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B				0 a
17	AUTHORITY FIRST DF	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	0 a	0 a	5 ab	9 cd
18	AUTHORITY ASSIST	4	SC	0.313 lb ai/a	10 fl oz/a		PRE	A	0 a	0 a	7 a	14 b

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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Trt-Eval Interval							3 DA-A	7 DA-A	14 DA-A	21 DA-A	28 DA-A	56 DA-A
Trt Treatment No. Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
19 AUTHORITY MTZ	45	WG	0.45 lb ai/a	16 oz/a		PRE	A	0 a	0 a	2 cde	3 ef	0 b
20 AUTHORITY XL	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	0 a	0 a	5 bc	19 a	13 a
21 AUTHORITY ELITE	7	SC	1.75 lb ai/a	32 fl oz/a		PRE	A	0 a	0 a	3 bcd	5 de	0 b
22 MATADOR	4.7	SC	1.54 lb ai/a	42 fl oz/a		PRE	A	0 a	0 a	1 de	0 f	0 b
23 VALOR XLT	40.3	WG	0.088 lb ai/a	3.5 oz/a		PRE	A	0 a	0 a	2 cde	13 bc	0 b
24 FIERCE XLT	55.68	WG	0.104 lb ai/a	3 oz/a		PRE	A	0 a	0 a	2 cde	13 bc	0 b
25 WARRANT	3	CS	1.13 lb ai/a	3 pt/a		PRE	A	0 a	0 a	0 e	0 f	0 b
26 SURVEIL CO-PACK VALOR SX FIRSTRATE	51 84	WG WG	0.064 lb ai/a 0.021 lb ai/a	2.4 oz/a 2 oz/a 0.4 oz/a		PRE PRE PRE	A A A	0 a	0 a	2 de	0 f	0 b
27 NONTREATED								0	0	0	0	0
LSD (P=.05)								0.0	0.0	2.5	4.6	3.8
Standard Deviation								0.0	0.0	1.8	3.2	2.7
CV								0.0	0.0	114.62	82.91	168.36
Replicate F								0.000	0.000	1.377	2.319	0.869
Replicate Prob(F)								1.0000	1.0000	0.2598	0.0857	0.4629
Treatment F								0.000	0.000	5.405	14.478	10.697
Treatment Prob(F)								1.0000	1.0000	0.0001	0.0001	0.0001

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing							GLXMA 6-30-14 Injury Percent	GLXMA 7-4-14 Injury Percent	GLXMA 7-11-14 Injury Percent	GLXMA 7-18-14 Injury Percent	GLXMA 7-27-14 Injury Percent 54 DA-A	GLXMA 8-26-14 Injury Percent 84 DA-A
Trt-Eval Interval							3 DA-B	7 DA-B	14 DA-B	21 DA-B	30 DA-B	60 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	PREFIX	5.29	EC	1.32 lb ai/a		2 pt/a	PRE	A			0 a	0 a
2	PUMMEL	100	SL	1.5 pt/a		1.5 pt/a	PRE	A			0 a	0 a
3	PUMMEL ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 SL 4.5 SL 100 SL 100 SL		1.5 pt/a 1.13 lb ae/a 0.25 % v/v 5 % v/v		1.5 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v	V3-1 V3-1 V3-1 V3-1	B B B B	4 e	4 d	0 a 0 a 0 a 0 a	0 a 0 a 0 a 0 a
4	PUMMEL	100	SL	2 pt/a		2 pt/a	PRE	A			0 a	0 a
5	PUMMEL ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 SL 4.5 SL 100 SL 100 SL		2 pt/a 1.13 lb ae/a 0.25 % v/v 5 % v/v		2 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v	V3-1 V3-1 V3-1 V3-1	B B B B	3 e	3 d	0 a 0 a 0 a 0 a	0 a 0 a 0 a 0 a
6	PUMMEL GLORY	100 SL 75 WG		2 pt/a 0.188 lb ai/a		2 pt/a 4 oz/a	PRE PRE	A A			0 a	0 a
7	PUMMEL RUMBLE	100 SL 1.88 EC		2 pt/a 0.235 lb ai/a		2 pt/a 1 pt/a	PRE PRE	A A			0 a	0 a
8	PUMMEL RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 SL 1.88 EC 4.5 SL 100 SL 100 SL		2 pt/a 0.235 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v		2 pt/a 1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v	V3-1 V3-1 V3-1 V3-1 V3-1	B B B B B	25 a	30 a	0 a 0 a 0 a 0 a 0 a	0 a 0 a 0 a 0 a 0 a
9	MILTIA	100	WG	3.2 oz/a		3.2 oz/a	PRE	A			0 a	0 a
10	MILTIA	100	WG	4.25 oz/a		4.25 oz/a	PRE	A			0 a	0 a
11	TORMENT	2.5	SL	0.312 lb ae/a		1 pt/a	PRE	A			0 a	0 a
12	TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	2.5 SL 4.5 SL 100 SL 100 SL		0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v 5 % v/v		1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v	V3-1 V3-1 V3-1 V3-1	B B B B	13 d	15 c	0 a 0 a 0 a 0 a	0 a 0 a 0 a 0 a
13	PARALLEL GLORY TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	7.8 EC 75 WG 2.5 SL 4.5 SL 100 SL 100 SL		1.22 lb ai/a 0.28 lb ai/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v 5 % v/v		20 fl oz/a 6 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v	PRE PRE V3-2 V3-2 V3-2 V3-2	A A C C C C	15 c	15 c	0 a 0 a 0 a 0 a 0 a 0 a	0 a 0 a 0 a 0 a 0 a 0 a
14	RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	1.88 EC 4.5 SL 100 SL 100 SL		0.235 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v		1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v	V3-1 V3-1 V3-1 V3-1	B B B B	20 b	20 b	0 a 0 a 0 a 0 a	0 a 0 a 0 a 0 a
15	WARRANT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	3 CS 4.5 SL 100 SL 100 SL		1.13 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v		3 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v	V3-1 V3-1 V3-1 V3-1	B B B B	0 f	0 d	0 a 0 a 0 a 0 a	0 a 0 a 0 a 0 a
16	COBRA ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	2 EC 4.5 SL 100 SL 100 SL		0.094 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v		6 fl oz/a 32 fl oz/a 0.25 % v/v 5 % v/v	V3-1 V3-1 V3-1 V3-1	B B B B	25 a	28 a	0 a 0 a 0 a 0 a	0 a 0 a 0 a 0 a
17	AUTHORITY FIRST DF	70	WG	0.28 lb ai/a		6.4 oz/a	PRE	A			0 a	0 a
18	AUTHORITY ASSIST	4	SC	0.313 lb ai/a		10 fl oz/a	PRE	A			0 a	0 a

429

Southern Illinois University

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							AMAPA-HR 6-10-14 Control Percent 7 DA-A	AMAPA-HR 6-17-14 Control Percen 14 DA-A	AMAPA-HR 6-24-14 Control Percent -3 DA-B 21 DA-A	AMAPA-HR 7-1-14 Control Percen 4 DA-C 28 DA-A	AMAPA-HR 7-29-14 Control Percent 32 DA-B 56 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Unit	Growth Stage	Appl Code			
1	PREFIX	5.29	EC	1.32 lb ai/a	2 pt/a		PRE	A	99 a	99 a	99 a
2	PUMMEL	100	SL	1.5 pt/a	1.5 pt/a		PRE	A	99 a	99 a	99 a
3	PUMMEL ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 SL 4.5 SL 100 SL 100 SL		1.5 pt/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	1.5 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B			13 f
4	PUMMEL	100	SL	2 pt/a	2 pt/a		PRE	A	99 a	99 a	99 a
5	PUMMEL ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 SL 4.5 SL 100 SL 100 SL		2 pt/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	2 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B			13 f
6	PUMMEL GLORY	100 SL 75 WG		2 pt/a 0.188 lb ai/a	2 pt/a 4 oz/a		PRE PRE	A A	99 a	99 a	99 a
7	PUMMEL RUMBLE	100 SL 1.88 EC		2 pt/a 0.235 lb ai/a	2 pt/a 1 pt/a		PRE PRE	A A	99 a	99 a	99 a
8	PUMMEL RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 SL 1.88 EC 4.5 SL 100 SL 100 SL		2 pt/a 0.235 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	2 pt/a 1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1 V3-1	B B B B B			78 bcd
9	MILTIA	100	WG	3.2 oz/a	3.2 oz/a		PRE	A	99 a	99 a	99 a
10	MILTIA	100	WG	4.25 oz/a	4.25 oz/a		PRE	A	99 a	99 a	99 a
11	TORMENT	2.5	SL	0.312 lb ae/a	1 pt/a		PRE	A	99 a	99 a	99 a
12	TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	2.5 SL 4.5 SL 100 SL 100 SL		0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B			73 cde
13	PARALLEL GLORY TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	7.8 EC 75 WG 2.5 SL 4.5 SL 100 SL 100 SL		1.22 lb ai/a 0.28 lb ai/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	20 fl oz/a 6 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		PRE PRE V3-2 V3-2 V3-2 V3-2	A A C C C C	99 a	99 a	99 a
14	RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	1.88 EC 4.5 SL 100 SL 100 SL		0.235 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	1 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B			66 de
15	WARRANT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	3 CS 4.5 SL 100 SL 100 SL		1.13 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	3 pt/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B			6 f
16	COBRA ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	2 EC 4.5 SL 100 SL 100 SL		0.094 lb ai/a 1.13 lb ae/a 0.25 % v/v 5 % v/v	6 fl oz/a 32 fl oz/a 0.25 % v/v 5 % v/v		V3-1 V3-1 V3-1 V3-1	B B B B			63 de
17	AUTHORITY FIRST DF	70	WG	0.28 lb ai/a	6.4 oz/a		PRE	A	99 a	99 a	99 a
18	AUTHORITY ASSIST	4	SC	0.313 lb ai/a	10 fl oz/a		PRE	A	99 a	99 a	99 a

Southern Illinois University

ADAMA Soybean Concepts - PRE and POST Programs.

Trial ID: 14-COL-MANA_PRE_POST-140 Location: Collinsville, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval								AMAPA-HR 6-10-14 Control Percent 7 DA-A	AMAPA-HR 6-17-14 Control Perce 14 DA-A	AMAPA-HR 6-24-14 Control Percent -3 DA-B 21 DA-A	AMAPA-HR 7-1-14 Control Perce 4 DA-C 28 DA-A	AMAPA-HR 7-29-14 Control Percent 32 DA-B 56 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Rate	Growth Unit	Appl Stage	Code		
19	AUTHORITY MTZ	45	WG	0.45	lb ai/a	16	oz/a	PRE	A		99 a	99 a
20	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A		99 a	99 a
21	AUTHORITY ELITE	7	SC	1.75	lb ai/a	32	fl oz/a	PRE	A		99 a	99 a
22	MATADOR	4.7	SC	1.54	lb ai/a	42	fl oz/a	PRE	A		99 a	99 a
23	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A		99 a	99 a
24	FIERCE XLT	55.68	WG	0.104	lb ai/a	3	oz/a	PRE	A		99 a	99 a
25	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	PRE	A		99 a	99 a
26	SURVEIL CO-PACK VALOR SX FIRSTRATE	51 84	WG WG	0.064 0.021	lb ai/a lb ai/a	2.4 2 0.4	oz/a oz/a oz/a	PRE PRE PRE	A A A		99 a	99 a
27	NONTREATED										0	0
LSD (P=.05)											0.0	0.0
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
											0.797	0.5008
											1.831	0.1525
											6.802	0.3667
											60.855	13.439
											0.0001	0.0001

Southern Illinois University

ADAMA Soybean Concepts - PRE and POST Programs.

Trial ID: 14-COL-MANA_PRE_POST-140 Location: Collinsville, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval								AMAPA-HR 7-4-14 Control Percen 7 DA-B	AMAPA-HR 7-11-14 Control Percent 14 DA-B	AMAPA-HR 7-18-14 Control Percen 21 DA-B	AMAPA-HR 7-27-14 Control Percent 54 DA-A 30 DA-B	AMAPA-HR 8-26-14 Control Percen 84 DA-A 60 DA-B	
Trt	Treatment No. Name	Form Conc	Form Type	Rate Rate	Unit Unit	Other Rate	Other Rate	Growth Unit Stage	Appl Code				
1	PREFIX	5.29	EC	1.32	lb ai/a	2	pt/a	PRE	A			98 ab	97 a
2	PUMMEL	100	SL	1.5	pt/a	1.5	pt/a	PRE	A			81 a-d	81 a-d
3	PUMMEL ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 4.5 100 100	SL SL SL SL	1.5 1.13 0.25 5	pt/a lb ae/a % v/v v/v	1.5 32 fl 0.25 5	pt/a oz/a % v/v v/v	V3-1 V3-1 V3-1 V3-1	B B B B	10 c	0 c	13 b	13 f
4	PUMMEL	100	SL	2	pt/a	2	pt/a	PRE	A			89 abc	89 ab
5	PUMMEL ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 4.5 100 100	SL SL SL SL	2 1.13 0.25 5	pt/a lb ae/a % v/v v/v	2 32 fl 0.25 5	pt/a oz/a % v/v v/v	V3-1 V3-1 V3-1 V3-1	B B B B	10 c	13 c	13 b	13 f
6	PUMMEL GLORY	100 75	SL WG	2 0.188	pt/a lb ai/a	2 4	pt/a oz/a	PRE PRE	A A			83 a-d	82 a-d
7	PUMMEL RUMBLE	100 1.88	SL EC	2 0.235	pt/a lb ai/a	2 1	pt/a pt/a	PRE PRE	A A			99 a	98 a
8	PUMMEL RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	100 1.88 4.5 100 100	SL EC SL SL SL	2 0.235 1.13 0.25 5	pt/a lb ai/a lb ae/a % v/v v/v	2 1 32 fl 0.25 5	pt/a pt/a oz/a % v/v v/v	V3-1 V3-1 V3-1 V3-1 V3-1	B B B B B	90 ab	78 ab	85 a	78 bcd
9	MILTIA	100	WG	3.2	oz/a	3.2	oz/a	PRE	A			90 abc	90 ab
10	MILTIA	100	WG	4.25	oz/a	4.25	oz/a	PRE	A			90 abc	90 ab
11	TORMENT	2.5	SL	0.312	lb ae/a	1	pt/a	PRE	A			99 a	98 a
12	TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	2.5 4.5 100 100	SL SL SL SL	0.312 1.13 0.25 5	lb ae/a lb ae/a % v/v v/v	1 32 fl 0.25 5	pt/a oz/a % v/v v/v	V3-1 V3-1 V3-1 V3-1	B B B B	80 b	73 ab	73 a	73 cde
13	PARALLEL GLORY TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	7.8 75 2.5 4.5 100 100	EC WG SL SL SL SL	1.22 0.28 0.312 1.13 0.25 5	lb ai/a lb ai/a lb ae/a lb ae/a % v/v v/v	20 6 1 32 fl 0.25 5	fl oz/a oz/a pt/a oz/a % v/v v/v	PRE PRE V3-2 V3-2 V3-2 V3-2	A A C C C C	99 a	97 a	97 a	98 ab
14	RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	1.88 4.5 100 100	EC SL SL SL	0.235 1.13 0.25 5	lb ai/a lb ae/a % v/v v/v	1 32 fl 0.25 5	pt/a oz/a % v/v v/v	V3-1 V3-1 V3-1 V3-1	B B B B	87 ab	66 ab	66 a	66 de
15	WARRANT ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	3 4.5 100 100	CS SL SL SL	1.13 1.13 0.25 5	lb ai/a lb ae/a % v/v v/v	3 32 fl 0.25 5	pt/a oz/a % v/v v/v	V3-1 V3-1 V3-1 V3-1	B B B B	20 c	6 c	6 b	6 f
16	COBRA ROUNDUP POWERMAX NIS (ACTIVATOR 90) N-PAK AMS	2 4.5 100 100	EC SL SL SL	0.094 1.13 0.25 5	lb ai/a lb ae/a % v/v v/v	6 32 fl 0.25 5	fl oz/a oz/a % v/v v/v	V3-1 V3-1 V3-1 V3-1	B B B B	85 ab	63 b	63 a	63 de
17	AUTHORITY FIRST DF	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A			93 abc	95 a
18	AUTHORITY ASSIST	4	SC	0.313	lb ai/a	10	fl oz/a	PRE	A			96 ab	94 a

Southern Illinois University

ADAMA Soybean Concepts - PRE and POST Programs.

Trial ID: 14-COL-MANA_PRE_POST-140 Location: Collinsville, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							AMAPA-HR 7-4-14 Control Percen 7 DA-B	AMAPA-HR 7-11-14 Control Percent 14 DA-B	AMAPA-HR 7-18-14 Control Percen 21 DA-B	AMAPA-HR 7-27-14 Control Percent 54 DA-A 30 DA-B	AMAPA-HR 8-26-14 Control Percen 84 DA-A 60 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	
19	AUTHORITY MTZ	45	WG	0.45	lb ai/a	16	oz/a	PRE	A		93 abc
20	AUTHORITY XL	70	WG	0.28	lb ai/a	6.4	oz/a	PRE	A		94 ab
21	AUTHORITY ELITE	7	SC	1.75	lb ai/a	32	fl oz/a	PRE	A		97 ab
22	MATADOR	4.7	SC	1.54	lb ai/a	42	fl oz/a	PRE	A		91 abc
23	VALOR XLT	40.3	WG	0.088	lb ai/a	3.5	oz/a	PRE	A		91 abc
24	FIERCE XLT	55.68	WG	0.104	lb ai/a	3	oz/a	PRE	A		88 abc
25	WARRANT	3	CS	1.13	lb ai/a	3	pt/a	PRE	A		56 e
26	SURVEIL CO-PACK VALOR SX FIRSTRATE	51 84	WG WG	0.064 0.021	lb ai/a lb ai/a	2.4 2 0.4	oz/a oz/a oz/a	PRE PRE PRE	A A A		80 a-d
27	NONTREATED										0
LSD (P=.05)							17.2	34.4	34.8	21.0	20.3
Standard Deviation							11.7	23.4	23.7	14.8	14.4
CV							19.48	47.36	45.65	19.15	18.52
Replicate F							0.075	0.228	0.584	1.071	1.157
Replicate Prob(F)							0.9729	0.8760	0.6321	0.3667	0.3318
Treatment F							44.899	10.187	9.272	13.439	14.250
Treatment Prob(F)							0.0001	0.0001	0.0001	0.0001	0.0001

ADAMA Soybean Concepts - PRE and POST Programs.

Trial ID: 14-COL-MANA_PRE_POST-140 Location: Collinsville, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Trial Comments

1. Protocol: MANA (PRE and POST Programs).
2. Ratings: CI 3, 7, 14, and 21 DA-A, CI 3, 7, 14, and 21 DA-B;
WC 7, 14, 21, and 28 DA-A, WC 0, 7, 14, 30, and 60 DA-B.
Rate PREs before applying POST.
3. Yield not requested.
4. Photos of any injury. Photos of overall plot and closeup of weeds.
If injury is observed take closeup of injury and record plot number for each photo.
Record crop stage at each rating timing and record crop stage, by plot, for any plots with injury.
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).
Weed control ratings at 7 DA-A were all 99% because the weeds had yet to fully emerge,
even in the nontreated areas.
7. Rainfall following the PRE application was 3.08 inch within the next week.
Rainfall following the V3-1 and V3-2 applications was 0.53 inch 11 days later.
8. Soybean injury ratings at 3 DA-A were all zeros because crop had yet to emerge.
Soybean injury ratings at 7 DA-A were all zeros because crop had yet to fully emerge.
Soybean injury following the soil applied herbicides was stunting.
Soybean injury following the postemergence applied herbicides was necrosis.
Soybean stage at crop injury ratings was always the same for all plots regardless of injury.
9. Soybean stage at each rating timing;

<u>Rating timing</u>	<u>Soybean stage</u>
3 DA-A	Not emerged
7 DA-A	Not fully emerged
14 DA-A	Unifoliate-V1
21 DA-A	V2
3 DA-B	V3
28 DA-A	V3
7 DA-B	V4
14 DA-B	R1
21 DA-B	R3
30 DA-B	R3-R4
56 DA-A	R3-R4
60 DA-B	R6

10. Not harvested.