

ADAMA Soybean Demonstration Program Concepts.

Trial ID: 14-COL-MANA-DEMO-150 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	

Objectives:
Evaluate the efficacy of new MANA herbicides on glyphosate-resistant Palmer amaranth.

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 E-mail: rkrausz@siu.edu Postal Code: 62221 Country: USA	
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Crop Description	
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	Planting Date: 6-3-14 Planting Method: SEEDED

Pest Description	
Pest 1 Type: W Code: AMAPA Amaranthus palmeri S.Wats. Common Name: amaranth, Palmer Description: glyphosate-resistant Palmer amaran h	

Site and Design	
Treated Plot Width: 6.67 FT Total Plot Width: 10 FT Treated Plot Length: 50 FT Total Plot Length: 50 FT Replications: 2 Untreated Arrangement: INCLUDED single control randomized in each block	Site Type: FIELD Experimental Unit: 1 PLOT Tillage Type: REDTIL reduced-till Study Design: RACOB L Randomized Complete Block (RCB)

No.	Previous Crop	Year
1.	GLXMA	2013

Maintenance	
No.	Maintenance Product Name
1.	N 0 LB/A, P2O5 0 LB/A, K2O 0 LB/A
2.	

Soil Description	
% Sand: 14 % OM: 2.8 Texture: SIL silt loam % Silt: 70 pH: 7.07 Soil Name: Littleton/Haymond/Orion % Clay: 16 CEC: 11.2	

Additional Measured Elements		
Element	Quantity	Unit
P1	63	lb/A
K	346	lb/A

Moisture and Weather Conditions	
Overall Moisture Conditions: NORMAL Closest Weather Station: WatchDog on-site	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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Trial ID: 14-COL-MANA-DEMO-150 Location: Collinsville, IL Trial Year: 2014
Investigator: Ronald F. Krausz**Application Description**

	A	B
Application Date:	6-3-14	7-1-14
Appl. Start Time:	19:00	11:50
Appl. Stop Time:	19:30	12:30
Application Method:	Spray	Spray
Application Timing:	PRE	28DAP
Application Placement:	BROSOI	BROFOL
Applied By:	RJW	LXF
Air Temperature, Unit:	87 F	94 F
% Relative Humidity:	60	37
Wind Velocity, Unit:	1 MPH	2 MPH
Wind Direction:	E	E
Dew Presence (Y/N):	N	N
Soil Temperature, Unit:	82 F	96 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	30	50
Next Moisture Occurred On:	6-4-14	7-7-14
Time to Next Moisture, Unit:	15 HR	6 DAY

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:		V3
Stage Maximum, Percent:		V3
Height, Unit:		12 IN
Height Minimum, Maximum:		8 12

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMAPA W	AMAPA W
Stage Majority, Percent:	NA	18
Stage Minimum, Percent:		8
Stage Maximum, Percent:		40
Height, Unit:		4 IN
Height Minimum, Maximum:		2 10
Density, Unit:		0.001 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
Boom Length, Unit:	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA

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Trial ID: 14-COL-MANA-DEMO-150 Location: Collinsville, IL Trial Year: 2014
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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval						GLXMA 6-17-14 Injury Percent 14 DA-A	GLXMA 7-1-14 Injury Percent 28 DA-A	GLXMA 7-8-14 Injury Percent 7 DA-B	GLXMA 7-15-14 Injury Percent 14 DA-B	GLXMA 7-22-14 Injury Percent 21 DA-B	GLXMA 7-29-14 Injury Percent 28 DA-B	GLXMA 8-5-14 Injury Percent 35 DA-B	GLXMA 8-12-14 Injury Percent 42 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	MANA 31304 TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 2.5 SL 4.5 SL 100 SL		8.1 oz/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v	8.1 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B 28DAP B		2 bc	0 a	5 b	0 a	0 a
2	MANA 31304 ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 4.5 SL 100 SL		8.1 oz/a 1.13 lb ae/a 0.25 % v/v	8.1 oz/a 32 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B		0 c	0 a	0 c	0 a	0 a
3	MANA 31304 PURSUIT NIS (ACTIVATOR 90)	100 WG 2 SL 100 SL		8.1 oz/a 0.0625 lb ai/a 0.25 % v/v	8.1 oz/a 4 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B		2 bc	0 a	0 c	0 a	0 a
4	MANA 31304 RUMBLE NIS (ACTIVATOR 90)	100 WG 1.88 EC 100 SL		8.1 oz/a 0.235 lb ai/a 0.25 % v/v	8.1 oz/a 1 pt/a 0.25 % v/v		PRE A 28DAP B 28DAP B		0 c	0 a	8 b	0 a	0 a
5	PUMMEL GLORY VISE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 5.4 EC 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 1.52 lb ai/a 1.13 lb ae/a 0.25 % v/v	2 pt/a 6 oz/a 2.25 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 c	0 a	15 a	0 a	0 a
6	PUMMEL GLORY RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 1.88 EC 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 0.376 lb ai/a 1.13 lb ae/a 0.25 % v/v	2 pt/a 6 oz/a 1.6 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 c	0 a	18 a	0 a	0 a
7	PUMMEL GLORY ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 1.13 lb ae/a 0.25 % v/v	2 pt/a 6 oz/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B		0 c	0 a	0 c	0 a	0 a
8	MILITIA GLORY VISE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 5.4 EC 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 1.52 lb ai/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 2.25 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		3 ab	0 a	18 a	0 a	0 a
9	MILITIA GLORY RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 1.88 EC 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 0.376 lb ai/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 1.6 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		2 bc	0 a	18 a	0 a	0 a
10	MILITIA GLORY ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B		3 ab	0 a	0 c	0 a	0 a
11	MILITIA GLORY TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 2.5 SL 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		4 a	0 a	8 b	0 a	0 a
12	TORMENT GLORY PARALLEL ROUNDUP POWERMAX NIS (ACTIVATOR 90)	2.5 SL 75 WG 7.8 EC 4.5 SL 100 SL		0.312 lb ae/a 0.28 lb ai/a 1.3 lb ai/a 1.13 lb ae/a 0.25 % v/v	1 pt/a 6 oz/a 1.33 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 c	0 a	0 c	0 a	0 a
13	TORMENT GLORY WARRANT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	2.5 SL 75 WG 3 CS 4.5 SL 100 SL		0.312 lb ae/a 0.28 lb ai/a 1.13 lb ai/a 1.13 lb ae/a 0.25 % v/v	1 pt/a 6 oz/a 3 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 c	0 a	0 c	0 a	0 a

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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Pest Code									
Crop Code									
Rating Date									
Rating Type									
Rating Unit									
Rating Timing									
Trt-Eval Interval									
	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA	GLXMA
	6-17-14	7-1-14	7-8-14	7-15-14	7-22-14	7-29-14	8-5-14	8-12-14	
	Injury	Injury	Injury	Injury	Injury	Injury	Injury	Injury	
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent	
	14 DA-A	28 DA-A	7 DA-B	14 DA-B	21 DA-B	28 DA-B	35 DA-B	42 DA-B	
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate	Growth Unit	Appl Stage	Code
14	TORMENT	2.5 SL		0.312 lb ae/a	1 pt/a		PRE	A	
	GLORY	75 WG		0.28 lb ai/a	6 oz/a		PRE	A	
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		28DAP	B	
	NIS (ACTIVATOR 90)	100 SL		0.25 % v/v	0.25 % v/v		28DAP	B	
15	NONTREATED								
LSD (P=.05)		2.4		0.0	4.4	0.0	0.0	0.0	0.0
Standard Deviation		1.1		0.0	2.0	0.0	0.0	0.0	0.0
CV		105.31		0.0	32.75	0.0	0.0	0.0	0.0
Replicate F		0.030		0.000	1.918	0.000	0.000	0.000	0.000
Replicate Prob(F)		0.8651		1.0000	0.1894	1.0000	1.0000	1.0000	1.0000
Treatment F		3.328		0.000	26.967	0.000	0.000	0.000	0.000
Treatment Prob(F)		0.0193		1.0000	0.0001	1.0000	1.0000	1.0000	1.0000

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval									GLXMA 8-19-14 Injury Percent	GLXMA 8-26-14 Injury Percent
									49 DA-B	56 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	MANA 31304 TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 2.5 SL 4.5 SL 100 SL		8.1 oz/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v	8.1 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B 28DAP B		0 a	0 a
2	MANA 31304 ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 4.5 SL 100 SL		8.1 oz/a 1.13 lb ae/a 0.25 % v/v	8.1 oz/a 32 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B		0 a	0 a
3	MANA 31304 PURSUIT NIS (ACTIVATOR 90)	100 WG 2 SL 100 SL		8.1 oz/a 0.0625 lb ai/a 0.25 % v/v	8.1 oz/a 4 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B		0 a	0 a
4	MANA 31304 RUMBLE NIS (ACTIVATOR 90)	100 WG 1.88 EC 100 SL		8.1 oz/a 0.235 lb ai/a 0.25 % v/v	8.1 oz/a 1 pt/a 0.25 % v/v		PRE A 28DAP B 28DAP B		0 a	0 a
5	PUMMEL GLORY VISE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 5.4 EC 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 1.52 lb ai/a 1.13 lb ae/a 0.25 % v/v	2 pt/a 6 oz/a 2.25 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 a	0 a
6	PUMMEL GLORY RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 1.88 EC 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 0.376 lb ai/a 1.13 lb ae/a 0.25 % v/v	2 pt/a 6 oz/a 1.6 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 a	0 a
7	PUMMEL GLORY ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 1.13 lb ae/a 0.25 % v/v	2 pt/a 6 oz/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B		0 a	0 a
8	MILITIA GLORY VISE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 5.4 EC 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 1.52 lb ai/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 2.25 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 a	0 a
9	MILITIA GLORY RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 1.88 EC 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 0.376 lb ai/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 1.6 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 a	0 a
10	MILITIA GLORY ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B		0 a	0 a
11	MILITIA GLORY TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 2.5 SL 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 a	0 a
12	TORMENT GLORY PARALLEL ROUNDUP POWERMAX NIS (ACTIVATOR 90)	2.5 SL 75 WG 7.8 EC 4.5 SL 100 SL		0.312 lb ae/a 0.28 lb ai/a 1.3 lb ai/a 1.13 lb ae/a 0.25 % v/v	1 pt/a 6 oz/a 1.33 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 a	0 a
13	TORMENT GLORY WARRANT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	2.5 SL 75 WG 3 CS 4.5 SL 100 SL		0.312 lb ae/a 0.28 lb ai/a 1.13 lb ai/a 1.13 lb ae/a 0.25 % v/v	1 pt/a 6 oz/a 3 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		0 a	0 a

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Investigator: Ronald F. Krausz

Pest Code							GLXMA	GLXMA
Crop Code							8-19-14	8-26-14
Rating Date							Injury	Injury
Rating Type							Percent	Percent
Rating Unit								
Rating Timing								
Trt-Eval Interval							49 DA-B	56 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Unit Unit	Other Rate	Growth Stage	Appl Code
14	TORMENT	2.5 SL		0.312 lb ae/a		1 pt/a	PRE A	
	GLORY	75 WG		0.28 lb ai/a		6 oz/a	PRE A	
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a		32 fl oz/a	28DAP B	
	NIS (ACTIVATOR 90)	100 SL		0.25 % v/v		0.25 % v/v	28DAP B	
15	NONTREATED							
	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

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval						AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR
						6-17-14 Control Percent	7-1-14 Control Percent	7-8-14 Control Percent	7-15-14 Control Percent	7-22-14 Control Percent	7-29-14 Control Percent
						14 DA-A	28 DA-A	7 DA-B	14 DA-B	21 DA-B	28 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate Unit	Other Rate Unit	Growth Stage	Appl Code			
1	MANA 31304 TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 2.5 SL 4.5 SL 100 SL		8.1 oz/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v	8.1 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B 28DAP B		99 a	98 a	98 a
2	MANA 31304 ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 4.5 SL 100 SL		8.1 oz/a 1.13 lb ae/a 0.25 % v/v	8.1 oz/a 32 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B		99 a	99 a	99 a
3	MANA 31304 PURSUIT NIS (ACTIVATOR 90)	100 WG 2 SL 100 SL		8.1 oz/a 0.0625 lb ai/a 0.25 % v/v	8.1 oz/a 4 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B		99 a	98 a	98 a
4	MANA 31304 RUMBLE NIS (ACTIVATOR 90)	100 WG 1.88 EC 100 SL		8.1 oz/a 0.235 lb ai/a 0.25 % v/v	8.1 oz/a 1 pt/a 0.25 % v/v		PRE A 28DAP B 28DAP B		99 a	98 a	98 a
5	PUMMEL GLORY VISE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 5.4 EC 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 1.52 lb ai/a 1.13 lb ae/a 0.25 % v/v	2 pt/a 6 oz/a 2.25 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		99 a	99 a	99 a
6	PUMMEL GLORY RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 1.88 EC 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 0.376 lb ai/a 1.13 lb ae/a 0.25 % v/v	2 pt/a 6 oz/a 1.6 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		99 a	97 a	97 a
7	PUMMEL GLORY ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 1.13 lb ae/a 0.25 % v/v	2 pt/a 6 oz/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B		99 a	98 a	98 a
8	MILITIA GLORY VISE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 5.4 EC 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 1.52 lb ai/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 2.25 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		99 a	99 a	99 a
9	MILITIA GLORY RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 1.88 EC 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 0.376 lb ai/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 1.6 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		99 a	99 a	99 a
10	MILITIA GLORY ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B		99 a	99 a	99 a
11	MILITIA GLORY TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 2.5 SL 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v	4.25 oz/a 6 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		99 a	99 a	99 a
12	TORMENT GLORY PARALLEL ROUNDUP POWERMAX NIS (ACTIVATOR 90)	2.5 SL 75 WG 7.8 EC 4.5 SL 100 SL		0.312 lb ae/a 0.28 lb ai/a 1.3 lb ai/a 1.13 lb ae/a 0.25 % v/v	1 pt/a 6 oz/a 1.33 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		99 a	99 a	99 a
13	TORMENT GLORY WARRANT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	2.5 SL 75 WG 3 CS 4.5 SL 100 SL		0.312 lb ae/a 0.28 lb ai/a 1.13 lb ai/a 1.13 lb ae/a 0.25 % v/v	1 pt/a 6 oz/a 3 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B		99 a	99 a	99 a

Pest Code	AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR
Crop Code						
Rating Date	6-17-14	7-1-14	7-8-14	7-15-14	7-22-14	7-29-14
Rating Type	Control	Control	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percen	Percent	Percent
Rating Timing	0 DA-B	0 DA-B				
Trt-Eval Interval	14 DA-A	28 DA-A	7 DA-B	14 DA-B	21 DA-B	28 DA-B
Trt Treatment						
No. Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate	Growth Stage
14 TORMENT	2.5 SL		0.312 lb ae/a	1 pt/a		PRE A
GLORY	75 WG		0.28 lb ai/a	6 oz/a		PRE A
ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		28DAP B
NIS (ACTIVATOR 90)	100 SL		0.25 % v/v	0.25 % v/v		28DAP B
15 NONTREATED						
LSL (P=.05)	0.0	1.4	1.4	3.9	3.4	3.4
Standard Deviation	0.0	0.7	0.7	1.8	1.6	1.6
CV	0.0	0.67	0.67	1.85	1.59	1.59
Replicate F	0.000	2.925	2.070	1.094	0.527	0.527
Replicate Prob(F)	1.0000	0.1110	0.1739	0.3146	0.4807	0.4807
Treatment F	0.000	2.000	2.172	2.273	1.230	1.230
Treatment Prob(F)	1.0000	0.1124	0.0876	0.0760	0.3574	0.3574

Southern Illinois University

ADAMA Soybean Demonstration Program Concepts.

Trial ID: 14-COL-MANA-DEMO-150 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 8-5-14 Control Percent 35 DA-B	AMAPA-HR 8-12-14 Control Percen 42 DA-B	AMAPA-HR 8-19-14 Control Percent 49 DA-B	AMAPA-HR 8-26-14 Control Percen 56 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Form Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code
1	MANA 31304 TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 2.5 SL 4.5 SL 100 SL		8.1 oz/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v		8.1 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B 28DAP B	98 a 98 a 97 a 97 a
2	MANA 31304 ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 4.5 SL 100 SL		8.1 oz/a 1.13 lb ae/a 0.25 % v/v		8.1 oz/a 32 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B	99 a 99 a 97 a 97 a
3	MANA 31304 PURSUIT NIS (ACTIVATOR 90)	100 WG 2 SL 100 SL		8.1 oz/a 0.0625 lb ai/a 0.25 % v/v		8.1 oz/a 4 fl oz/a 0.25 % v/v		PRE A 28DAP B 28DAP B	98 a 98 a 95 a 95 a
4	MANA 31304 RUMBLE NIS (ACTIVATOR 90)	100 WG 1.88 EC 100 SL		8.1 oz/a 0.235 lb ai/a 0.25 % v/v		8.1 oz/a 1 pt/a 0.25 % v/v		PRE A 28DAP B 28DAP B	98 a 98 a 97 a 97 a
5	PUMMEL GLORY VISE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 5.4 EC 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 1.52 lb ai/a 1.13 lb ae/a 0.25 % v/v		2 pt/a 6 oz/a 2.25 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B	99 a 99 a 98 a 98 a
6	PUMMEL GLORY RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 1.88 EC 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 0.376 lb ai/a 1.13 lb ae/a 0.25 % v/v		2 pt/a 6 oz/a 1.6 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B	98 a 98 a 94 a 94 a
7	PUMMEL GLORY ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 SL 75 WG 4.5 SL 100 SL		2 pt/a 0.28 lb ai/a 1.13 lb ae/a 0.25 % v/v		2 pt/a 6 oz/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B	98 a 98 a 97 a 97 a
8	MILITIA GLORY VISE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 5.4 EC 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 1.52 lb ai/a 1.13 lb ae/a 0.25 % v/v		4.25 oz/a 6 oz/a 2.25 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B	98 a 98 a 97 a 97 a
9	MILITIA GLORY RUMBLE ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 1.88 EC 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 0.376 lb ai/a 1.13 lb ae/a 0.25 % v/v		4.25 oz/a 6 oz/a 1.6 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B	98 a 98 a 97 a 97 a
10	MILITIA GLORY ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 1.13 lb ae/a 0.25 % v/v		4.25 oz/a 6 oz/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B	94 a 94 a 93 a 93 a
11	MILITIA GLORY TORMENT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	100 WG 75 WG 2.5 SL 4.5 SL 100 SL		4.25 oz/a 0.28 lb ai/a 0.312 lb ae/a 1.13 lb ae/a 0.25 % v/v		4.25 oz/a 6 oz/a 1 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B	98 a 98 a 94 a 94 a
12	TORMENT GLORY PARALLEL ROUNDUP POWERMAX NIS (ACTIVATOR 90)	2.5 SL 75 WG 7.8 EC 4.5 SL 100 SL		0.312 lb ae/a 0.28 lb ai/a 1.3 lb ai/a 1.13 lb ae/a 0.25 % v/v		1 pt/a 6 oz/a 1.33 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B	99 a 99 a 99 a 99 a
13	TORMENT GLORY WARRANT ROUNDUP POWERMAX NIS (ACTIVATOR 90)	2.5 SL 75 WG 3 CS 4.5 SL 100 SL		0.312 lb ae/a 0.28 lb ai/a 1.13 lb ai/a 1.13 lb ae/a 0.25 % v/v		1 pt/a 6 oz/a 3 pt/a 32 fl oz/a 0.25 % v/v		PRE A PRE A 28DAP B 28DAP B 28DAP B	99 a 99 a 99 a 99 a

Southern Illinois University

ADAMA Soybean Demonstration Program Concepts.

Trial ID: 14-COL-MANA-DEMO-150 Location: Collinsville, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Pest Code										AMAPA-HR	AMAPA-HR	AMAPA-HR	AMAPA-HR
Crop Code										8-5-14	8-12-14	8-19-14	8-26-14
Rating Date										Control	Control	Control	Control
Rating Type										Percent	Perce	Percent	Perce
Rating Unit													
Rating Timing													
Trt-Eval Interval										35 DA-B	42 DA-B	49 DA-B	56 DA-B
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code			
14	TORMENT	2.5 SL		0.312 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				
	ROUNDUP POWERMAX	4.5 SL		1.13 lb	ae/a	32 fl oz/a			28DAP B				
	NIS (ACTIVATOR 90)	100 SL		0.25 %	v/v	0.25 %	v/v		28DAP B				
15	NONTREATED										0	0	0
LSD (P=.05)											3.4	3.4	4.7
Standard Deviation											1.6	1.6	2.2
CV											1.59	1.6	2.24
Replicate F											0.527	0.717	9.362
Replicate Prob(F)											0.4807	0.4126	0.0091
Treatment F											1.230	1.180	1.541
Treatment Prob(F)											0.3574	0.3849	0.2231

ADAMA Soybean Demonstration Program Concepts.

Trial ID: 14-COL-MANA-DEMO-150 Location: Collinsville, IL Trial Year: 2014
Investigator: Ronald F. Krausz

Trial Comments

1. Protocol: MANA (New Herb Demo).
2. Ratings: CI 14, and 28 DA-A, CI 7, 14, 21, 28, 35, 42, 49, and 56 DA-B;
WC 14, and 28 DA-A, WC 7, 14, 21, 28, 35, 42, 49, and 56 DA-B
3. Yield not requested.
4. Photos at 28 DA-A, 28 DA-B, and 56 DA-B.
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).
7. Rainfall following the PRE application was 3.08 inch within the next week.
Rainfall following the 28DAP application was 0.53 inch within the next week.
8. Soybean injury at 7 DA-B 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>
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14 DA-A	Unifoliate-V1
28 DA-A	V3
7 DA-B	V4-V5
14 DA-B	R2
21 DA-B	R3
28 DA-B	R4
35 DA-B	R4-R5
42 DA-B	R5
49 DA-B	R6
56 DA-B	R6

10. Not harvested.