

Marvel Product Understanding.

Trial ID: 14-21M-MW50 Location: Belleville Res. Center Trial Year: 2014
Investigator: Ronald F. Krausz

Trial Status: F one-year/final Initiation Date: 5-12-14 Completion Date: 10-26-14	
Trial Location	
City: Belleville State/Prov.: Illinois IL Postal Code: 62221	Country: USA

Objectives: Evaluate crop response and weed control with Marvel.
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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 Variety: AG3832 Description: RR2Y	Soybean BBCH Scale: BSOY	Crop Description Planting Rate, Unit: 140000 S/A Depth, Unit: 1 IN Row Spacing, Unit: 30 IN
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Pest 1 Type: W Code: SETFA <i>Setaria faberi</i> Herrm. Common Name: foxtail, giant	Pest 2 Type: W Code: XANST <i>Xanthium strumarium</i> L. Common Name: cocklebur, common
Pest 3 Type: W Code: IPOHE <i>Ipomoea hederacea</i> (L.) Jacq. Common Name: morningglory, ivyleaf	Pest 4 Type: W Code: AMBTR <i>Ambrosia trifida</i> L. Common Name: ragweed, giant
Pest 5 Type: W Code: AMATA <i>Amaranthus rudis</i> Sauer Common Name: waterhemp, common	

Treated Plot Width: 7.5 FT Treated Plot Length: 30 FT	Total Plot Width: 10 FT Total Plot Length: 30 FT	Site Type: FIELD Experimental Unit: 1 PLOT Tillage Type: REDTIL reduced-till Study Design: RACOB L Randomized Complete Block (RCB)						
Replications: 4 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>ZEAMD</td> <td>2013</td> </tr> </tbody> </table>	No.	Previous Crop	Year	1.	ZEAMD	2013		
No.	Previous Crop	Year						
1.	ZEAMD	2013						

<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 50 LB/A, K2O 150 LB/A</td> </tr> </tbody> </table>	No.	Maintenance Product Name	1.	N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A	Maintenance
No.	Maintenance Product Name				
1.	N 0 LB/A, P2O5 50 LB/A, K2O 150 LB/A				

% OM: 3.4 pH: 6.5 CEC: 12	Texture: SIL silt loam Soil Name: Be halto	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>71</td> <td>lb/A</td> </tr> <tr> <td>K</td> <td>297</td> <td>lb/A</td> </tr> </tbody> </table>	Element	Quantity	Unit	P1	71	lb/A	K	297	lb/A		
Element	Quantity	Unit									
P1	71	lb/A									
K	297	lb/A									

Overall Moisture Conditions: NORMAL Closest Weather Station: ICN - Belleville IL	Moisture and Weather Conditions Distance, Unit: 0.5 MI
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Marvel Product Understanding.

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No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	4-22-14					7	DAY	44	78	F
2.	4-24-14	2.24	IN	RAIN	rain	5	DAY			
3.	4-29-14	0.09	IN	RAIN	rain	2	DAY			
4.	4-29-14					7	DAY	41	87	F
5.	5-6-14					7	DAY	56	86	F
6.	5-8-14	0.13	IN	RAIN	rain	2	DAY			
7.	5-12-14	0.88	IN	RAIN	rain	4	DAY			
8.	5-13-14					7	DAY	37	76	F
9.	5-20-14					7	DAY	55	87	F
10.	5-21-14	0.06	IN	RAIN	rain	1	DAY			
11.	5-25-14	0.49	IN	RAIN	rain	2	DAY			
12.	5-27-14	0.08	IN	RAIN	rain	2	DAY			
13.	5-27-14					7	DAY	60	86	F
14.	5-31-14	0.14	IN	RAIN	rain	1	DAY			
15.	6-1-14	0.13	IN	RAIN	rain	1	DAY			
16.	6-3-14					7	DAY	59	90	F
17.	6-4-14	0.67	IN	RAIN	rain	1	DAY			
18.	6-7-14	0.6	IN	RAIN	rain	1	DAY			
19.	6-9-14	1.38	IN	RAIN	rain	2	DAY			
20.	6-10-14					7	DAY	51	90	F
21.	6-12-14	0.07	IN	RAIN	rain	1	DAY			
22.	6-15-14	0.02	IN	RAIN	rain	1	DAY			
23.	6-17-14					7	DAY	67	92	F
24.	6-20-14	2.09	IN	RAIN	rain	5	DAY			
25.	6-24-14					7	DAY	65	91	F
26.	6-27-14	0.11	IN	RAIN	rain	2	DAY			
27.	7-1-14	0.01	IN	RAIN	rain	1	DAY			
28.	7-1-14					7	DAY	55	90	F
29.	7-7-14	0.79	IN	RAIN	rain	2	DAY			
30.	7-8-14					7	DAY	59	89	F
31.	7-12-14	0.49	IN	RAIN	rain	3	DAY			
32.	7-15-14					7	DAY	54	85	F
33.	7-22-14					7	DAY	57	98	F
34.	7-25-14	0.02	IN	RAIN	rain	1	DAY			
35.	7-29-14					7	DAY	52	89	F
36.	8-1-14	0.04	IN	RAIN	rain	1	DAY			
37.	8-5-14	4.04	IN	RAIN	rain	4	DAY			
38.	8-5-14					7	DAY	66	88	F
39.	8-12-14					7	DAY	57	84	F
40.	8-15-14	1.21	IN	RAIN	rain	3	DAY			
41.	8-19-14					7	DAY	67	95	F
42.	8-20-14	0.11	IN	RAIN	rain	1	DAY			
43.	8-26-14					7	DAY	68	95	F
44.	8-27-14	1.56	IN	RAIN	rain	2	DAY			
45.	9-1-14	2.21	IN	RAIN	rain	2	DAY			
46.	9-2-14					7	DAY	54	93	F
47.	9-5-14	0.24	IN	RAIN	rain	1	DAY			
48.	9-9-14					7	DAY	45	85	F
49.	9-10-14	1.06	IN	RAIN	rain	1	DAY			
50.	9-16-14					7	DAY	46	86	F
51.	9-23-14					7	DAY	46	86	F
52.	9-30-14					7	DAY	37	87	F
53.	10-1-14	0.99	IN	RAIN	rain	3	DAY			
54.	10-6-14	0.31	IN	RAIN	rain	2	DAY			
55.	10-7-14					7	DAY	46	77	F
56.	10-9-14	1.44	IN	RAIN	rain	2	DAY			
57.	10-12-14	1.24	IN	RAIN	rain	3	DAY			
58.	10-14-14					7	DAY	37	73	F
59.	10-21-14					7	DAY	36	82	F
60.	10-28-14	0.26	IN	RAIN	rain	1	DAY			

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Application Description

	A	B	C
Application Date:	5-13-14	5-30-14	5-30-14
Appl. Start Time:	10:30	9:30	9:30
Appl. Stop Time:	11:00	10:00	10:00
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	2-4"W-1	2-4"W-2
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	RFK	RFK	RFK
Air Temperature, Unit:	61 F	82 F	82 F
% Relative Humidity:	100	67	67
Wind Velocity, Unit:	4 MPH	0 MPH	0 MPH
Wind Direction:	N		N/A
Dew Presence (Y/N):	Y	N	N
Soil Temperature, Unit:	67 F	72 F	72 F
Soil Moisture:	ABONOR	NORMAL	NORMAL
% Cloud Cover:	100	25	25
Next Moisture Occurred On:	5-13-14	5-31-14	5-31-14
Time to Next Moisture, Unit:	2 HR	1 DAY	1 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	V1	V1
Stage Minimum, Percent:		V1	V1
Stage Maximum, Percent:		V1	V1
Height, Unit:		4 IN	4 IN
Height Minimum, Maximum:		3 4	3 4

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	SETFA W	SETFA W	SETFA W
Stage Majority, Percent:	NA	5	5
Stage Minimum, Percent:		3	3
Stage Maximum, Percent:		5	5
Height, Unit:		3 IN	3 IN
Height Minimum, Maximum:		2 4	2 4
Density, Unit:		0.1 FT2	0.1 FT2
Pest 2 Code, Type, Scale:	XANST W	XANST W	XANST W
Stage Majority, Percent:	NA	6	6
Stage Minimum, Percent:		2	2
Stage Maximum, Percent:		6	6
Height, Unit:		3 IN	3 IN
Height Minimum, Maximum:		2 4	2 4
Density, Unit:		0.1 FT2	0.1 FT2
Pest 3 Code, Type, Scale:	IPOHE W	IPOHE W	IPOHE W
Stage Majority, Percent:	NA	4	4
Stage Minimum, Percent:		2	2
Stage Maximum, Percent:		6	6
Height, Unit:		2 IN	2 IN
Height Minimum, Maximum:		1 2	1 2
Density, Unit:		0.01 FT2	0.01 FT2
Pest 4 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	NA	6	6
Stage Minimum, Percent:		2	2
Stage Maximum, Percent:		8	8
Height, Unit:		3 IN	3 IN
Height Minimum, Maximum:		2 4	2 4
Density, Unit:		0.1 FT2	0.1 FT2
Pest 5 Code, Type, Scale:	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	NA	4	NA
Stage Minimum, Percent:		3	
Stage Maximum, Percent:		4	
Height, Unit:		0.5 IN	
Height Minimum, Maximum:		0 1	
Density, Unit:		0.01 FT2	

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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:	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

Marvel Product Understanding.

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Pest Code	Crop Code	Rating Date	GLXMA 10-26-14	GLXMA 10-26-14	GLXMA 10-26-14	GLXMA 5-28-14	GLXMA 6-4-14	GLXMA 6-14-14	GLXMA 6-29-14
Rating Type	Rating Unit	Rating Timing	Moisture Percent	Test wt. lb/bu	Yield bu/A	Injury Percent	Injury Percent	Injury Percent	Injury Percent
Trt-Eval Interval	Trt-Eval Interval	Trt-Eval Interval				15 DA-A	5 DA-B 5 DA-C	15 DA-B 15 DA-C	30 DA-B 30 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Grow h Stage	Appl Code	
1	MARVEL ROUNDUP POWERMAX N-PAK AMS	3 SL 4.5 SL 100 SL		0.17 lb ai/a 1.13 lb ae/a 2.5 % v/v	7.25 fl oz/a 32 fl oz/a 2.5 % v/v		2-4"W-1 B 2-4"W-1 B 2-4"W-1 B		
2	COBRA ROUNDUP POWERMAX N-PAK AMS	2 EC 4.5 SL 100 SL		0.156 lb ai/a 1.13 lb ae/a 2.5 % v/v	10 fl oz/a 32 fl oz/a 2.5 % v/v		2-4"W-1 B 2-4"W-1 B 2-4"W-1 B		
3	AUTHORITY MAXX MARVEL ROUNDUP POWERMAX N-PAK AMS	66 WG 3 SL 4.5 SL 100 SL		0.268 lb ai/a 0.17 lb ai/a 1.13 lb ae/a 2.5 % v/v	6.5 oz/a 7.25 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		
4	VALOR XLT COBRA ROUNDUP POWERMAX N-PAK AMS	40 3 WG 2 EC 4.5 SL 100 SL		0.088 lb ai/a 0.156 lb ai/a 1.13 lb ae/a 2.5 % v/v	3.5 oz/a 10 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		
5	AUTHORITY FIRST DF MARVEL ROUNDUP POWERMAX N-PAK AMS	70 WG 3 SL 4.5 SL 100 SL		0.28 lb ai/a 0.17 lb ai/a 1.13 lb ae/a 2.5 % v/v	6.4 oz/a 7.25 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		
6	AUTHORITY ELITE MARVEL ROUNDUP POWERMAX N-PAK AMS	7 SC 3 SL 4.5 SL 100 SL		1.53 lb ai/a 0.17 lb ai/a 1.13 lb ae/a 2.5 % v/v	28 fl oz/a 7.25 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		
7	FIERCE COBRA ROUNDUP POWERMAX N-PAK AMS	76 WG 2 EC 4.5 SL 100 SL		0.143 lb ai/a 0.156 lb ai/a 1.13 lb ae/a 2.5 % v/v	3 oz/a 10 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		
8	VERDICT ZIDUA ULTRA BLAZER 2 EC ROUNDUP POWERMAX N-PAK AMS	5 57 EC 85 WG 2 EC 4.5 SL 100 SL		0.218 lb ai/a 0.08 lb ai/a 0.375 lb ai/a 1.13 lb ae/a 2.5 % v/v	5 fl oz/a 1.5 oz/a 24 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		
9	ANTHEM ACCOLADE MARVEL ROUNDUP POWERMAX N-PAK AMS	2.15 SE 80 WG 3 SL 4.5 SL 100 SL		0.101 lb ai/a 0.045 lb ai/a 0.14 lb ai/a 1.13 lb ae/a 2.5 % v/v	6 fl oz/a 0.9 oz/a 6 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		
10	NONTREATED								
LSD (P=.05)									
Standard Deviation									
CV									
Replicate F									
Replicate Prob(F)									
Treatment F									
Treatment Prob(F)									

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	SETFA	SETFA	SETFA	SETFA	XANST	XANST	XANST	XANST
							5-28-14 Control Percent	6-4-14 Control Percent	6-14-14 Control Percent	6-29-14 Control Percent	5-28-14 Control Percent	6-4-14 Control Percent	6-14-14 Control Percent	6-29-14 Control Percent
							15 DA-A	5 DA-B 5 DA-C	15 DA-B 15 DA-C	30 DA-B 30 DA-C	15 DA-A	5 DA-B 5 DA-C	15 DA-B 15 DA-C	30 DA-B 30 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code						
1	MARVEL ROUNDUP POWERMAX N-PAK AMS	3 SL 4.5 SL 100 SL		0.17 lb ai/a 1.13 lb ae/a 2.5 % v/v	7.25 fl oz/a 32 fl oz/a 2.5 % v/v		2-4"W-1 B 2-4"W-1 B 2-4"W-1 B			99 a	99 a	99 a	99 a	90 c
2	COBRA ROUNDUP POWERMAX N-PAK AMS	2 EC 4.5 SL 100 SL		0.156 lb ai/a 1.13 lb ae/a 2.5 % v/v	10 fl oz/a 32 fl oz/a 2.5 % v/v		2-4"W-1 B 2-4"W-1 B 2-4"W-1 B			99 a	96 a	96 a	99 a	93 abc
3	AUTHORITY MAXX MARVEL ROUNDUP POWERMAX N-PAK AMS	66 WG 3 SL 4.5 SL 100 SL		0.268 lb ai/a 0.17 lb ai/a 1.13 lb ae/a 2.5 % v/v	6.5 oz/a 7.25 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		58 b	99 a	99 a	99 a	92 a	99 a
4	VALOR XLT COBRA ROUNDUP POWERMAX N-PAK AMS	40.3 WG 2 EC 4.5 SL 100 SL		0.088 lb ai/a 0.156 lb ai/a 1.13 lb ae/a 2.5 % v/v	3.5 oz/a 10 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		90 a	99 a	99 a	99 a	91 a	99 a
5	AUTHORITY FIRST DF MARVEL ROUNDUP POWERMAX N-PAK AMS	70 WG 3 SL 4.5 SL 100 SL		0.28 lb ai/a 0.17 lb ai/a 1.13 lb ae/a 2.5 % v/v	6.4 oz/a 7.25 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		71 b	99 a	99 a	99 a	95 a	99 a
6	AUTHORITY ELITE MARVEL ROUNDUP POWERMAX N-PAK AMS	7 SC 3 SL 4.5 SL 100 SL		1.53 lb ai/a 0.17 lb ai/a 1.13 lb ae/a 2.5 % v/v	28 fl oz/a 7.25 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		95 a	99 a	99 a	99 a	49 a	99 a
7	FIERCE COBRA ROUNDUP POWERMAX N-PAK AMS	76 WG 2 EC 4.5 SL 100 SL		0.143 lb ai/a 0.156 lb ai/a 1.13 lb ae/a 2.5 % v/v	3 oz/a 10 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		91 a	99 a	99 a	99 a	69 a	99 a
8	VERDICT ZIDUA ULTRA BLAZER 2 EC ROUNDUP POWERMAX N-PAK AMS	5.57 EC 85 WG 2 EC 4.5 SL 100 SL		0.218 lb ai/a 0.08 lb ai/a 0.375 lb ai/a 1.13 lb ae/a 2.5 % v/v	5 fl oz/a 1.5 oz/a 24 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		92 a	99 a	99 a	99 a	69 a	99 a
9	ANTHEM ACCOLADE MARVEL ROUNDUP POWERMAX N-PAK AMS	2.15 SE 80 WG 3 SL 4.5 SL 100 SL		0.101 lb ai/a 0.045 lb ai/a 0.14 lb ai/a 1.13 lb ae/a 2.5 % v/v	6 fl oz/a 0.9 oz/a 6 fl oz/a 32 fl oz/a 2.5 % v/v		PRE A PRE A 2-4"W-2 C 2-4"W-2 C 2-4"W-2 C		97 a	99 a	99 a	99 a	90 a	99 a
10	NONTREATED								0	0	0	0	0	0
LSD (P=.05)									16.8	0 0	3.4	3.4	36.7	0.0
Standard Deviation									11.3	0 0	2.3	2.3	24.7	0.0
CV									13.38	0 0	2.37	2.37	31.25	0.0
Replicate F									1.976	0.000	1.000	1.000	6.718	0.000
Replicate Prob(F)									0.1536	1.0000	0.4098	0.4098	0.0031	1.0000
Treatment F									6.721	0.000	1.000	1.000	1.958	0.000
Treatment Prob(F)									0.0007	1.0000	0.4613	0.4613	0.1258	1.0000

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Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	IPOHE	IPOHE	IPOHE	IPOHE	AMBTR	AMBTR	AMBTR	AMBTR
							5-28-14 Control Percent	6-4-14 Control Percent	6-14-14 Control Percen	6-29-14 Control Percent	5-28-14 Control Percent	6-4-14 Control Percent	6-14-14 Control Percen	6-29-14 Control Percent
							15 DA-A	5 DA-B 5 DA-C	15 DA-B 15 DA-C	30 DA-B 30 DA-C	15 DA-A	5 DA-B 5 DA-C	15 DA-B 15 DA-C	30 DA-B 30 DA-C
Trt	Treatment	Form	Form	Rate	Other	Growth	Appl							
No.	Name	Conc	Type	Rate	Rate	Unit	Stage	Code						
1	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a		2-4"W-1 B		99 a	95 b	95 bc		99 a	86 c
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-1 B							58 b
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-1 B							
2	COBRA	2 EC		0.156 lb ai/a	10 fl oz/a		2-4"W-1 B		99 a	96 b	94 c		99 a	97 ab
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-1 B							78 a
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-1 B							
3	AUTHORITY MAXX	66 WG		0.268 lb ai/a	6.5 oz/a		PRE A		99 a	99 a	99 a	99 a	65 a	99 a
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a		2-4"W-2 C						95 ab	90 a
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C							
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C							
4	VALOR XLT	40.3 WG		0.088 lb ai/a	3.5 oz/a		PRE A		99 a	99 a	99 a	99 a	91 a	99 a
	COBRA	2 EC		0.156 lb ai/a	10 fl oz/a		2-4"W-2 C						99 a	96 a
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C							
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C							
5	AUTHORITY FIRST DF	70 WG		0.28 lb ai/a	6.4 oz/a		PRE A		99 a	99 a	99 a	99 a	90 a	99 a
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a		2-4"W-2 C						97 ab	93 a
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C							
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C							
6	AUTHORITY ELITE	7 SC		1.53 lb ai/a	28 fl oz/a		PRE A		99 a	99 a	99 a	99 a	24 b	99 a
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a		2-4"W-2 C						92 b	80 a
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C							
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C							
7	FIERCE	76 WG		0.143 lb ai/a	3 oz/a		PRE A		98 ab	99 a	99 a	98 ab	67 a	99 a
	COBRA	2 EC		0.156 lb ai/a	10 fl oz/a		2-4"W-2 C							92 a
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C							
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C							
8	VERDICT	5.57 EC		0.218 lb ai/a	5 fl oz/a		PRE A		94 c	99 a	99 a	98 ab	86 a	99 a
	ZIDUA	85 WG		0.08 lb ai/a	1.5 oz/a		PRE A						96 ab	90 a
	ULTRA BLAZER 2 EC	2 EC		0.375 lb ai/a	24 fl oz/a		2-4"W-2 C							
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C							
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C							
9	ANTHEM	2.15 SE		0.101 lb ai/a	6 fl oz/a		PRE A		94 bc	99 a	99 a	97 abc	65 a	99 a
	ACCOLADE	80 WG		0.045 lb ai/a	0.9 oz/a		PRE A							89 a
	MARVEL	3 SL		0.14 lb ai/a	6 fl oz/a		2-4"W-2 C							
	ROUNDUP POWERMAX	4.5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C							
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C							
10	NONTREATED								0	0	0	0	0	0
LSD (P=.05)									4.0	0.0	3.1	3.6	39.2	0.0
Standard Deviation									2.7	0.0	2.1	2.4	26.4	0.0
CV									2.79	0.0	2.16	2.51	37.85	0.0
Replicate F									0.405	0.000	2.087	1.920	5.908	0.000
Replicate Prob(F)									0.7512	1.0000	0.1286	0.1534	0.0054	1.0000
Treatment F									3.229	0.000	2.690	2.902	3.154	0.000
Treatment Prob(F)									0.0248	1.0000	0.0289	0.0205	0.0271	1.0000

Marvel Product Understanding.

Trial ID: 14-21M-MW50 Location: Belleville Res. Center Trial Year: 2014
Investigator: Ronald F. Krausz

Pest Code									AMATA	AMATA	AMATA	AMATA
Crop Code												
Rating Date									5-28-14	6-4-14	6-14-14	6-29-14
Rating Type									Control	Control	Control	Control
Rating Unit									Percen	Percen	Percent	Percen
Rating Timing												
Trt-Eval Interval									15 DA-A	5 DA-B	15 DA-B	30 DA-B
										5 DA-C	15 DA-C	30 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate Unit	Other Rate	Other Rate Unit	Grow Stage	h Appl Code				
1	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a		2-4"W-1 B			99 a	99 a	99 a
	ROUNDUP POWERMAX	4 5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-1 B					
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-1 B					
2	COBRA	2 EC		0.156 lb ai/a	10 fl oz/a		2-4"W-1 B			99 a	99 a	97 a
	ROUNDUP POWERMAX	4 5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-1 B					
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-1 B					
3	AUTHORITY MAXX	66 WG		0.268 lb ai/a	6.5 oz/a		PRE A		99 a	99 a	99 a	99 a
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a		2-4"W-2 C					
	ROUNDUP POWERMAX	4 5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C					
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C					
4	VALOR XLT	40 3 WG		0.088 lb ai/a	3.5 oz/a		PRE A		99 a	99 a	99 a	99 a
	COBRA	2 EC		0.156 lb ai/a	10 fl oz/a		2-4"W-2 C					
	ROUNDUP POWERMAX	4 5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C					
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C					
5	AUTHORITY FIRST DF	70 WG		0.28 lb ai/a	6.4 oz/a		PRE A		99 a	99 a	99 a	99 a
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a		2-4"W-2 C					
	ROUNDUP POWERMAX	4 5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C					
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C					
6	AUTHORITY ELITE	7 SC		1.53 lb ai/a	28 fl oz/a		PRE A		99 a	99 a	99 a	99 a
	MARVEL	3 SL		0.17 lb ai/a	7.25 fl oz/a		2-4"W-2 C					
	ROUNDUP POWERMAX	4 5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C					
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C					
7	FIERCE	76 WG		0.143 lb ai/a	3 oz/a		PRE A		99 a	99 a	99 a	99 a
	COBRA	2 EC		0.156 lb ai/a	10 fl oz/a		2-4"W-2 C					
	ROUNDUP POWERMAX	4 5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C					
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C					
8	VERDICT	5 57 EC		0.218 lb ai/a	5 fl oz/a		PRE A		99 a	99 a	99 a	99 a
	ZIDUA	85 WG		0.08 lb ai/a	1.5 oz/a		PRE A					
	ULTRA BLAZER 2 EC	2 EC		0.375 lb ai/a	24 fl oz/a		2-4"W-2 C					
	ROUNDUP POWERMAX	4 5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C					
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C					
9	ANTHEM	2.15 SE		0.101 lb ai/a	6 fl oz/a		PRE A		99 a	99 a	99 a	99 a
	ACCOLADE	80 WG		0.045 lb ai/a	0.9 oz/a		PRE A					
	MARVEL	3 SL		0.14 lb ai/a	6 fl oz/a		2-4"W-2 C					
	ROUNDUP POWERMAX	4 5 SL		1.13 lb ae/a	32 fl oz/a		2-4"W-2 C					
	N-PAK AMS	100 SL		2.5 % v/v	2.5 % v/v		2-4"W-2 C					
10	NONTREATED								0	0	0	0
LSD (P=.05)									0 0	0.0	0.0	2.2
Standard Deviation									0 0	0.0	0.0	1.5
CV									0 0	0.0	0.0	1.54
Replicate F									0 000	0.000	0.000	0.918
Replicate Prob(F)									1.0000	1.0000	1.0000	0.4469
Treatment F									0 000	0.000	0.000	0.964
Treatment Prob(F)									1.0000	1.0000	1.0000	0.4862

Marvel Product Understanding.

Trial ID: 14-21M-MW50 Location: Belleville Res. Center Trial Year: 2014
Investigator: Ronald F. Krausz

Trial Comments

1. Protocol: FMC (Marvel).
2. Ratings: CI 5 and 15 DA-A, CI 5 and 15 DA-B, and CI 5 and 15 DA-C.
WC 5, 15, and 30 DA-A, WC 5, 15, and 30 DA-B, and WC 5, 15, and 30 DA-C.
3. Yield.
4. Following the PRE application the first significant rainfall event was 0.81 inch over the next 2 days.
Following the 2-4"W-1 application the first significant rainfall event was 0.27 inch over the next 2 days
then 0.67 inch 5 days after application.
Following the 2-4"W-2 application the first significant rainfall event was 0.27 inch over the next 2 days
then 0.67 inch 5 days after application.
5. At 5 DA-A there were not enough weeds emerged in the nontreated areas to make a weed control rating.
At 5 DA-A the crop had yet to emerge thus no crop injury rating was made.
Ratings at 15 DA-A were prior to the postemergence applications.
Ratings at 15 DA-B and 15 DA-C were also 32 DA-A.
6. Harvested 10-26-14, (2) 30 inch rows by 27 ft.