

Anthem / Anthem ATZ Full Sales.

Trial ID: 16-21M-MW40 Location: Belleville Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.

Trial Status: F one-year/final Initiation Date: 5-29-16 Completion Date: 8-22-16	Trial Location
City: Belleville Country: USA State/Prov.: Illinois IL Postal Code: 62221	

Objectives:
Evaluate Anthem tank-mix concepts and Anthem followed by Solstice and Anthem postemergence concepts for control of grass and broadleaf weeds.

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	Contacts
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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: 5-29-16 Depth, Unit: 1.5 IN Planting Method: SEEDED Row Spacing, Unit: 30 IN	Crop Description
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Pest 1 Type: W Code: AMBTR Ambrosia trifida L. Common Name: ragweed, giant Pest 2 Type: W Code: XANST Xanthium strumarium L. Common Name: cocklebur, common Pest 3 Type: W Code: AMATA Amaranthus rudis Sauer Common Name: waterhemp, common	Pest Description
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Treated Plot Width: 7.5 FT Total Plot Width: 10 FT Treated Plot Length: 30 FT Total Plot Length: 30 FT Replications: 3 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� Randomized Complete Block (RCB)						
<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>2015</td> </tr> </tbody> </table>		No.	Previous Crop	Year	1.	GLXMA	2015
No.	Previous Crop	Year					
1.	GLXMA	2015					

Maintenance					
<table border="1"> <thead> <tr> <th>No.</th> <th>Maintenance Product Name</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>N 150 LB/A, P2O5 50 LB/A, K2O 150 LB/A</td> </tr> </tbody> </table>	No.	Maintenance Product Name	1.	N 150 LB/A, P2O5 50 LB/A, K2O 150 LB/A	
No.	Maintenance Product Name				
1.	N 150 LB/A, P2O5 50 LB/A, K2O 150 LB/A				

Description Name: 21M_2013 % OM: 3.4 Texture: SIL silt loam pH: 6.5 Soil Name: Bethalto CEC: 12	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 Distance, Unit: 0.5 MI	Moisture and Weather Conditions
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Anthem / Anthem ATZ Full Sales.

Trial ID: 16-21M-MW40 Location: Belleville Res. Center Trial Year: 2016
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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
50.	8-23-16	0.02	IN	RAIN	rain	1	DAY			
51.	8-30-16	0.03	IN	RAIN	rain	1	DAY			

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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	B	C	D
Application Date:	5-30-16	6-16-16	6-17-16	6-24-16
Appl. Start Time:	17:00	9:45	15:50	7:05
Appl. Stop Time:	17:30	10:55	16:00	7:20
Application Method:	Spray	Spray	Spray	Spray
Application Timing:	PRE	4"W-1	4"W-2	V7
Application Placement:	BROSOI	BROFOL	BROFOL	BROFOL
Applied By:	KNW	MCG	MCG	MCG
Air Temperature, Unit:	81 F	94 F	88 F	75 F
% Relative Humidity:	69	49	45	75
Wind Velocity, Unit:	2 MPH	6 MPH	4 MPH	1 MPH
Wind Direction:	SE	WNW	NNE	NW
Dew Presence (Y/N):	N	N	N	N
Soil Temperature, Unit:	73 F	81 F	80 F	80 F
Soil Moisture:	NORMAL	BELNOR	BELNOR	BELNOR
% Cloud Cover:	25	25	0	20
Next Moisture Occurred On:	6-4-16	6-30-16	6-30-16	6-30-16
Time to Next Moisture, Unit:	5 DAY	14 DAY	13 DAY	6 DAY

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale:	ZEAMD	ZEAMD	ZEAMD	ZEAMD
Stage Scale Used:	DESC	DESC	DESC	DESC
Stage Majority, Percent:	NA	V5	V5	V7
Stage Minimum, Percent:		V4	V5	V6
Stage Maximum, Percent:		V5	V5	V7
Height, Unit:		13 IN	13 IN	24 IN
Height Minimum, Maximum:		11 13	11 13	16 24

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Pest Stage At Each Application				
	A	B	C	D
Pest 1 Code, Type, Scale:	AMBTR W	AMBTR W	AMBTR W	AMBTR W
Stage Majority, Percent:	NA	6	4	6
Stage Minimum, Percent:		4	4	6
Stage Maximum, Percent:		8	8	12
Height, Unit:		2 IN	4 IN	8 IN
Height Minimum, Maximum:		1 3	2 6	6 13
Density, Unit:		5 FT2	2 FT2	0.08 FT2
Pest 2 Code, Type, Scale:	XANST W	XANST W	XANST W	XANST W
Stage Majority, Percent:	NA	4	6	6
Stage Minimum, Percent:		2	2	4
Stage Maximum, Percent:		6	14	8
Height, Unit:		2 IN	2 IN	8 IN
Height Minimum, Maximum:		1 3	0.5 4	1.5 10
Density, Unit:		3 FT2	20 FT2	10 FT2
Pest 3 Code, Type, Scale:	AMATA W	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	NA	4	4	NA
Stage Minimum, Percent:		2	2	
Stage Maximum, Percent:		6	6	
Height, Unit:		1 IN	2 IN	
Height Minimum, Maximum:		0.5 2	0.5 2	
Density, Unit:		1 FT2	0.3 FT2	

Application Equipment				
	A	B	C	D
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR	XR
Nozzle Size:	8002	8002	8002	8002
Boom Length, Unit:	7.5 FT	7.5 FT	7.5 FT	7.5 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA

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Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	ZEAMD 6-6-16 Injury Percent 7 DA-A	ZEAMD 6-13-16 Injury Percent -4 DA-C 14 DA-A	ZEAMD 6-22-16 Injury Percent 5 DA-C -2 DA-D	ZEAMD 6-27-16 Injury Percent 3 DA-D 28 DA-A	ZEAMD 7-1-16 Injury Percent 32 DA-A 7 DA-D	ZEAMD 7-8-16 Injury Percent 14 DA-D	ZEAMD 7-22-16 Injury Percent 28 DA-D
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Unit	Growth Stage	Appl Code				
1	ANTHEM MAXX AATREX 4L ROUNDUP POWERMAX AMS - LIQUID	4.3 4 4.5 100	SC SC SL SL	0.134 1 1.13 2.5	lb ai/a lb ai/a lb ae/a % v/v	4 32 32 2.5	fl oz/a fl oz/a fl oz/a % v/v	PRE PRE V7 V7	A A D D	0 a	0 a	0 a	0 a
2	ANTHEM MAXX AATREX 4L BALANCE FLEXX ROUNDUP POWERMAX AMS - LIQUID	4.3 4 2 4.5 100	SC SC SC SL SL	0.134 1 0.0313 1.13 2.5	lb ai/a lb ai/a lb ai/a lb ae/a % v/v	4 32 2 32 2.5	fl oz/a fl oz/a fl oz/a fl oz/a % v/v	PRE PRE PRE V7 V7	A A A D D	0 a	0 a	0 a	0 a
3	ACURON ROUNDUP POWERMAX AMS - LIQUID	3.44 4.5 100	CS SL SL	2.15 1.13 2.5	lb ai/a lb ae/a % v/v	2.5 32 2.5	qt/a fl oz/a % v/v	PRE V7 V7	A D D	0 a	0 a	0 a	0 a
4	CORVUS AATREX 4L ROUNDUP POWERMAX AMS - LIQUID	2.63 4 4.5 100	SC SC SL SL	0.115 1 1.13 2.5	lb ai/a lb ai/a lb ae/a % v/v	5.6 32 32 2.5	fl oz/a fl oz/a fl oz/a % v/v	PRE PRE V7 V7	A A D D	0 a	0 a	0 a	0 a
5	RESICORE ROUNDUP POWERMAX AMS - LIQUID	3.29 4.5 100	EC SL SL	2.26 1.13 2.5	lb ai/a lb ae/a % v/v	2.75 32 2.5	qt/a fl oz/a % v/v	PRE V7 V7	A D D	0 a	0 a	0 a	0 a
6	ANTHEM MAXX AATREX 4L SOLSTICE ROUNDUP POWERMAX COC AMS - LIQUID	4.3 4 4 4.5 100 100	SC SC SC SL SL SL	0.134 1 0.094 1.13 0.5 2.5	lb ai/a lb ai/a lb ai/a lb ae/a % v/v % v/v	4 32 3 32 0.5 2.5	fl oz/a fl oz/a fl oz/a fl oz/a % v/v % v/v	PRE PRE 4"W-2 4"W-2 4"W-2 4"W-2	A A C C C C	0 a	0 a	0 a	0 a
7	ANTHEM MAXX SOLSTICE AATREX 4L ROUNDUP POWERMAX COC AMS - LIQUID	4.3 4 4 4.5 100 100	SC SC SC SL SL SL	0.134 0.078 1 1.13 0.5 2.5	lb ai/a lb ai/a lb ai/a lb ae/a % v/v % v/v	4 2.5 32 32 0.5 2.5	fl oz/a fl oz/a fl oz/a fl oz/a % v/v % v/v	PRE 4"W-2 4"W-2 4"W-2 4"W-2 4"W-2	A C C C C C	0 a	0 a	0 a	0 a
8	ANTHEM MAXX AATREX 4L SOLSTICE AATREX 4L ROUNDUP POWERMAX COC AMS - LIQUID	4.3 4 4 4 4.5 100 100	SC SC SC SC SL SL SL	0.134 1 0.078 0.5 1.13 0.5 2.5	lb ai/a lb ai/a lb ai/a lb ai/a lb ae/a % v/v % v/v	4 32 2.5 16 32 0.5 2.5	fl oz/a fl oz/a fl oz/a fl oz/a fl oz/a % v/v % v/v	PRE PRE 4"W-2 4"W-2 4"W-2 4"W-2 4"W-2	A A C C C C C	0 a	0 a	0 a	0 a
9	ANTHEM MAXX SOLSTICE AATREX 4L ROUNDUP POWERMAX AMS - LIQUID	4.3 4 4 4.5 100	SC SC SC SL SL	0.067 0.078 1 1.13 2.5	lb ai/a lb ai/a lb ai/a lb ae/a % v/v	2 2.5 32 32 2.5	fl oz/a fl oz/a fl oz/a fl oz/a % v/v	4"W-1 4"W-1 4"W-1 4"W-1 4"W-1	B B B B B	0 a	0 a	0 a	0 a
10	ANTHEM MAXX AATREX 4L ROUNDUP POWERMAX AMS - LIQUID	4.3 4 4.5 100	SC SC SL SL	0.134 1 1.13 2.5	lb ai/a lb ai/a lb ae/a % v/v	4 32 32 2.5	fl oz/a fl oz/a fl oz/a % v/v	4"W-1 4"W-1 4"W-1 4"W-1	B B B B	0 a	0 a	0 a	0 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 5,6,10,14,18,19,20,8,12,16,22,25,9 because error mean square = 0.

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11	HALEX GT AATREX 4L NIS AMS - LIQUID	4.389 CS 4 SC 100 SL 100 SL	1.98 lb ai/a 1 lb ai/a 0.25 % v/v 2.5 % v/v	3.6 pt/a 32 fl oz/a 0.25 % v/v 2.5 % v/v	4"W-1 B 4"W-1 B 4"W-1 B 4"W-1 B			0 a	0 a	0 a	0 a	0 a	
12	NONTREATED					0	0	0	0	0	0	0	
LSD P=.05	Standard Deviation	CV				0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	
Replicate F	Replicate Prob(F)	Treatment F	Treatment Prob(F)			0.000 1.0000	0.000 1.0000	0.000 1.0000	0.000 1.0000	0.000 1.0000	0.000 1.0000	0.000 1.0000	

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							6-13-16 Control Percent -4 DA-C 14 DA-A	6-22-16 Control Percent 5 DA-C -2 DA-D	6-27-16 Control Percent 3 DA-D 28 DA-A	7-22-16 Control Percent 53 DA-A	8-22-16 Control Percent 84 DA-A				
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code					
1	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a		PRE	A	80 cd	86 de	91 cd	94 a	98 a
	AATREX 4L	4	SC		1 lb ai/a	32	fl oz/a		PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		V7	D					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		V7	D					
2	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a		PRE	A	80 cd	80 e	86 d	95 a	98 a
	AATREX 4L	4	SC		1 lb ai/a	32	fl oz/a		PRE	A					
	BALANCE FLEXX	2	SC	0.0313	lb ai/a	2	fl oz/a		PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		V7	D					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		V7	D					
3	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a		PRE	A	85 bc	89 b-e	88 d	98 a	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		V7	D					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		V7	D					
4	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a		PRE	A	90 b	88 cde	94 abc	98 a	98 a
	AATREX 4L	4	SC		1 lb ai/a	32	fl oz/a		PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		V7	D					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		V7	D					
5	RESICORE	3.29	EC	2.26	lb ai/a	2.75	qt/a		PRE	A	97 a	93 a-d	93 bc	98 a	98 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		V7	D					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		V7	D					
6	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a		PRE	A	78 d	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC		1 lb ai/a	32	fl oz/a		PRE	A					
	SOLSTICE	4	SC	0.094	lb ai/a	3	fl oz/a		4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		4"W-2	C					
	COC	100	SL		0.5 % v/v	0.5	% v/v		4"W-2	C					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		4"W-2	C					
7	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a		PRE	A	0 e	98 a	99 a	98 a	98 a
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a		4"W-2	C					
	AATREX 4L	4	SC		1 lb ai/a	32	fl oz/a		4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		4"W-2	C					
	COC	100	SL		0.5 % v/v	0.5	% v/v		4"W-2	C					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		4"W-2	C					
8	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a		PRE	A	80 cd	99 a	99 a	97 a	98 a
	AATREX 4L	4	SC		1 lb ai/a	32	fl oz/a		PRE	A					
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a		4"W-2	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a		4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		4"W-2	C					
	COC	100	SL		0.5 % v/v	0.5	% v/v		4"W-2	C					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		4"W-2	C					
9	ANTHEM MAXX	4.3	SC	0.067	lb ai/a	2	fl oz/a		4"W-1	B		92 a-d	97 ab	97 a	98 a
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a		4"W-1	B					
	AATREX 4L	4	SC		1 lb ai/a	32	fl oz/a		4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		4"W-1	B					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		4"W-1	B					
10	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a		4"W-1	B		96 abc	98 ab	90 a	98 a
	AATREX 4L	4	SC		1 lb ai/a	32	fl oz/a		4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a		4"W-1	B					
	AMS - LIQUID	100	SL		2.5 % v/v	2.5	% v/v		4"W-1	B					

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 Investigator: Karla L. Gage, Ph.D.

Pest Code	Crop Code	Rating Date	Rating Type	Rating Unit	Rating Timing	Trt-Eval Interval	AMBTR	AMBTR	AMBTR	AMBTR	AMBTR													
		6-13-16	Control	Percent	-4 DA-C	14 DA-A	6-22-16	Control	Percent	5 DA-C	-2 DA-D	6-27-16	Control	Percent	3 DA-D	28 DA-A	7-22-16	Control	Percent	53 DA-A	8-22-16	Control	Percent	84 DA-A
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code														
11	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a		4"W-1	B		97	ab	98	ab	95	a	98	a					
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a		4"W-1	B														
	NIS	100	SL	0.25	% v/v	0.25	% v/v		4"W-1	B														
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v		4"W-1	B														
12	NONTREATED										0	0	0	0	0	0	0	0						
LSD P=.05											6.2	9.0	5.2	5.6	0.7									
Standard Deviation											2.6	4.1	2.3	2.5	0.3									
CV											3.55	4.39	2.46	2.61	0.32									
Replicate F											3.295	0.708	0.076	4.503	0.000									
Replicate Prob(F)											0.1124	0.4198	0.7889	0.0598	1.0000									
Treatment F											271.248	4.638	8.560	2.046	1.000									
Treatment Prob(F)											0.0001	0.0117	0.0011	0.1372	0.5000									

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 Could not calculate LSD (% mean diff) for columns 5,6,10,14,18,19,20,8,12,16,22,25,9 because error mean square = 0.

Anthem / Anthem ATZ Full Sales.

Trial ID: 16-21M-MW40 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	XANST	XANST	XANST	XANST	XANST			
							6-13-16 Control Percent -4 DA-C 14 DA-A	6-22-16 Control Percent 5 DA-C -2 DA-D	6-27-16 Control Percent 3 DA-D 28 DA-A	7-22-16 Control Percent 53 DA-A	8-22-16 Control Percent 84 DA-A			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	60	0	30	85	85
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
2	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	75	70	75	90	95
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	BALANCE FLEXX	2	SC	0.0313	lb ai/a	2	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
3	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	80	80	80	92	98
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
4	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	85	85	85	90	98
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
5	RESICORE	3.29	EC	2.26	lb ai/a	2.75	qt/a	PRE	A	95	95	95	98	98
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
6	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	70	98	98	95	97
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	SOLSTICE	4	SC	0.094	lb ai/a	3	fl oz/a	4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-2	C					
	COC	100	SL	0.5	% v/v	0.5	% v/v	4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-2	C					
7	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	0	96	96	95	98
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W-2	C					
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-2	C					
	COC	100	SL	0.5	% v/v	0.5	% v/v	4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-2	C					
8	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	75	99	99	98	98
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W-2	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-2	C					
	COC	100	SL	0.5	% v/v	0.5	% v/v	4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-2	C					
9	ANTHEM MAXX	4.3	SC	0.067	lb ai/a	2	fl oz/a	4"W-1	B	.	96	99	90	98
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W-1	B					
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-1	B					
10	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	4"W-1	B	.	94	97	92	98
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-1	B					

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Anthem / Anthem ATZ Full Sales.

Trial ID: 16-21M-MW40 Location: Belleville Res. Center Trial Year: 2016
 Investigator: Karla L. Gage, Ph.D.

Pest Code						XANST	XANST	XANST	XANST	XANST
Crop Code						6-13-16	6-22-16	6-27-16	7-22-16	8-22-16
Rating Date						Control	Control	Control	Control	Control
Rating Type						Percent	Percent	Percent	Percent	Percent
Rating Unit						-4 DA-C	5 DA-C	3 DA-D		
Rating Timing						14 DA-A	-2 DA-D	28 DA-A	53 DA-A	84 DA-A
Trt-Eval Interval										
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code
11	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a		4"W-1	B
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a		4"W-1	B
	NIS	100	SL	0.25	% v/v	0.25	% v/v		4"W-1	B
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v		4"W-1	B
12	NONTREATED									
	LSD P=.05									
	Standard Deviation									
	CV									
	Replicate F									
	Replicate Prob(F)									
	Treatment F									
	Treatment Prob(F)									

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 5,6,10,14,18,19,20,8,12,16,22,25,9 because error mean square = 0.

Anthem / Anthem ATZ Full Sales.

Trial ID: 16-21M-MW40 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	AMATA	AMATA	AMATA	AMATA	AMATA			
							6-13-16 Control Percent -4 DA-C 14 DA-A	6-22-16 Control Percent 5 DA-C -2 DA-D	6-27-16 Control Percent 3 DA-D 28 DA-A	7-22-16 Control Percent 53 DA-A	8-22-16 Control Percent 84 DA-A			
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code					
1	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	99 a	98 a	99 a	99 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
2	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	99 a	97 a	99 a	99 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	BALANCE FLEXX	2	SC	0.0313	lb ai/a	2	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
3	ACURON	3.44	CS	2.15	lb ai/a	2.5	qt/a	PRE	A	99 a	99 a	99 a	98 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
4	CORVUS	2.63	SC	0.115	lb ai/a	5.6	fl oz/a	PRE	A	99 a	97 a	99 a	99 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
5	RESICORE	3.29	EC	2.26	lb ai/a	2.75	qt/a	PRE	A	99 a	99 a	99 a	99 a	99 a
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	V7	D					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	V7	D					
6	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	99 a	99 a	98 a	98 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	SOLSTICE	4	SC	0.094	lb ai/a	3	fl oz/a	4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-2	C					
	COC	100	SL	0.5	% v/v	0.5	% v/v	4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-2	C					
7	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W-2	C					
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-2	C					
	COC	100	SL	0.5	% v/v	0.5	% v/v	4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-2	C					
8	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	PRE	A	99 a	99 a	99 a	99 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	PRE	A					
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W-2	C					
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	4"W-2	C					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-2	C					
	COC	100	SL	0.5	% v/v	0.5	% v/v	4"W-2	C					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-2	C					
9	ANTHEM MAXX	4.3	SC	0.067	lb ai/a	2	fl oz/a	4"W-1	B		99 a	99 a	99 a	99 a
	SOLSTICE	4	SC	0.078	lb ai/a	2.5	fl oz/a	4"W-1	B					
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-1	B					
10	ANTHEM MAXX	4.3	SC	0.134	lb ai/a	4	fl oz/a	4"W-1	B		99 a	99 a	98 a	99 a
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	4"W-1	B					
	ROUNDUP POWERMAX	4.5	SL	1.13	lb ae/a	32	fl oz/a	4"W-1	B					
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"W-1	B					

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 Investigator: Karla L. Gage, Ph.D.

Pest Code						AMATA	AMATA	AMATA	AMATA	AMATA
Crop Code						6-13-16	6-22-16	6-27-16	7-22-16	8-22-16
Rating Date						Control	Control	Control	Control	Control
Rating Type						Percent	Percent	Percent	Percent	Percent
Rating Unit						-4 DA-C	5 DA-C	3 DA-D		
Rating Timing						14 DA-A	-2 DA-D	28 DA-A	53 DA-A	84 DA-A
Trt-Eval Interval										
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Other Rate	Other Rate	Growth Unit	Appl Stage	Code
11	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	4"	W-1	B
	AATREX 4L	4	SC	1	lb ai/a	32	fl oz/a	4"	W-1	B
	NIS	100	SL	0.25	% v/v	0.25	% v/v	4"	W-1	B
	AMS - LIQUID	100	SL	2.5	% v/v	2.5	% v/v	4"	W-1	B
12	NONTREATED									
	LSD P=.05					2.5		0.6		5.3
	Standard Deviation					0.0	1.5	0.4		3.1
	CV					0.0	1.49	0.39		3.15
	Replicate F					0.000	0.042	1.458		1.838
	Replicate Prob(F)					1.0000	0.9588	0.2563		0.1850
	Treatment F					0.000	0.874	1.500		1.350
	Treatment Prob(F)					1.0000	0.5711	0.2109		0.2714

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 Could not calculate LSD (% mean diff) for columns 5,6,10,14,18,19,20,8,12,16,22,25,9 because error mean square = 0.

Anthem / Anthem ATZ Full Sales.

Trial ID: 16-21M-MW40 Location: Belleville Res. Center Trial Year: 2016
Investigator: Karla L. Gage, Ph.D.

Trial Comments

1. Protocol: FMC (Anthem/Anthem ATZ).
2. Ratings:
CI 7, 14, and 28 DA-A; 7, 14, and 28 DA-D rate all plots.
WC 14, 28, 56, and 84 DA-A rate all plots.
Rate PRE prior to applications C and D can be same day as 14 or 28 DA-A rating.
3. Yield not requested.
4. Photos of treatments 1-5 at POST application D.
5. Rainfall following the PRE application A was 0.73 inch over 2 days beginning 5 days later.
Rainfall following the 4"W-1 application B was 2.61 inch over 9 days beginning 14 days later.
Rainfall following the 4"W-2 application C was 2.61 inch over 9 days beginning 13 days later.
Rainfall following the V7 application D was 2.61 inch over 9 days beginning 6 days later.
6. On 8-22-16 at 84 DA-A increasing AMATA control was also a function of crop canopy.
7. Missing data for AMBTR in replication 1 was due to lack of emerged AMBTR in nontreated areas due to competition from a high population of XANST.
Missing data for XANST in replications 2 and 3 was due to absence of XANST in those areas.
8. Not harvested.