

Southern Illinois University

Anthem Tank Mixtures in Corn.

Trial ID: 13-DSO-AnthemCN Location: De Soto, IL Trial Year: 2013
Investigator: Bryan Young

Trial Status: F one-year/final Initiation Date: 5-20-13 Completion Date: 10-21-13	Trial Location City: De Soto Country: USA State/Prov.: Illinois IL Postal Code: 62924
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Objectives:
Evaluate glyphosate-resistant waterhemp control from Anthem and Anthem ATZ in corn.

Study Director: Bryan Young Organization: Southern Illinois University Address: 1205 Lincoln Drive - AG 176 - MC 4415 City+State/Prov: Carbondale IL Postal Code: 62901 Country: USA	Title: Professor Phone No.: 618-453-7679 Mobile No.: 618-713-6471 E-mail: bgyoung@siu.edu
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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: 28000 S/A Depth, Unit: 2 IN Row Spacing, Unit: 30 IN	Crop Description Planting Date: 5-20-13 Planting Method: SEEDED
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Pest 1 Type: W Code: AMATA <i>Amaranthus rudis</i> Sauer Common Name: waterhemp, common Description: glyphosate-resistant waterhemp Pest 2 Type: W Code: PANDI <i>Panicum dichotomiflorum</i> Michx. Common Name: panicum, fall	Pest Description
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Treated Plot Width: 6.67 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: NOTILL no-till Study Design: RACOB L Randomized Complete Block (RCB)
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No.	Previous Crop	Year
1.	GLXMA	2012

Maintenance <table border="1"> <thead> <tr> <th>No.</th> <th>Maintenance Product Name</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>N 180 LB/A, P2O5 0 LB/A, K2O 0 LB/A</td> </tr> </tbody> </table>	No.	Maintenance Product Name	1.	N 180 LB/A, P2O5 0 LB/A, K2O 0 LB/A
No.	Maintenance Product Name			
1.	N 180 LB/A, P2O5 0 LB/A, K2O 0 LB/A			

% Sand: 14 % OM: 2.12 Texture: SIL silt loam % Silt: 67 pH: 6.9 Soil Name: Okaw % Clay: 19 CEC: 12.7	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>112</td> <td>lb/A</td> </tr> <tr> <td>K</td> <td>386</td> <td>lb/A</td> </tr> </tbody> </table>	Element	Quantity	Unit	P1	112	lb/A	K	386	lb/A
Element	Quantity	Unit								
P1	112	lb/A								
K	386	lb/A								

Overall Moisture Conditions: NORMAL Closest Weather Station: SOUTHERN IL AIRPORT (93810)	Moisture and Weather Conditions Distance, Unit: 1.5 MI
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No.	Date	Amount	Unit	Type	Type Description	Interval	Unit	Min Temp	Max Temp	Temp Unit
1.	5-3-13	1.33	IN	RAIN	rain	3	DAY			
2.	5-5-13	0.75	IN	RAIN	rain	2	DAY			
3.	5-6-13					7	DAY	41	80	F
4.	5-10-13	0.17	IN	RAIN	rain	3	DAY			
5.	5-13-13					7	DAY	37	87	F
6.	5-16-13	0.23	IN	RAIN	rain	2	DAY			
7.	5-20-13					7	DAY	43	85	F
8.	5-21-13	0.91	IN	RAIN	rain	1	DAY			
9.	5-27-13					7	DAY	59	86	F
10.	5-31-13	0.7	IN	RAIN	rain	3	DAY			
11.	6-1-13	1.67	IN	RAIN	rain	2	DAY			
12.	6-3-13					7	DAY	50	82	F
13.	6-10-13	0.13	IN	RAIN	rain	5	DAY			
14.	6-10-13					7	DAY	57	93	F
15.	6-17-13	0.36	IN	RAIN	rain	2	DAY			
16.	6-17-13					7	DAY	61	92	F
17.	6-22-13	0.34	IN	RAIN	rain	2	DAY			
18.	6-24-13					7	DAY	64	93	F
19.	6-26-13	1.25	IN	RAIN	rain	2	DAY			
20.	6-30-13	0.3	IN	RAIN	rain	2	DAY			
21.	7-1-13					7	DAY	57	88	F
22.	7-2-13	1.16	IN	RAIN	rain	2	DAY			
23.	7-8-13					7	DAY	59	92	F
24.	7-14-13	0.05	IN	RAIN	rain	5	DAY			
25.	7-15-13					7	DAY	68	93	F
26.	7-20-13	1.24	IN	RAIN	rain	2	DAY			
27.	7-22-13					7	DAY	51	90	F
28.	7-27-13	0.13	IN	RAIN	rain	2	DAY			
29.	7-29-13					7	DAY	58	86	F
30.	7-30-13	0.98	IN	RAIN	rain	1	DAY			
31.	8-3-13	0.24	IN	RAIN	rain	3	DAY			
32.	8-5-13	0.53	IN	RAIN	rain	2	DAY			
33.	8-5-13					7	DAY	61	98	F
34.	8-8-13	1.78	IN	RAIN	rain	4	DAY			
35.	8-12-13	0.12	IN	RAIN	rain	2	DAY			
36.	8-12-13					7	DAY	51	84	F
37.	8-17-13	0.21	IN	RAIN	rain	2	DAY			
38.	8-19-13	0.01	IN	RAIN	rain	1	DAY			
39.	8-19-13					7	DAY	60	90	F

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Application Description

	A	B	C
Application Date:	5-20-13	6-2-13	6-20-13
Appl. Start Time:	19:00	19:00	9:30
Appl. Stop Time:	19:45	19:15	10:00
Application Method:	Spray	Spray	Spray
Application Timing:	PRE	SPIKE	EPOST
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	LXF	RJW	LXF
Air Temperature, Unit:	85 F	70 F	91 F
% Relative Humidity:	58	70	59
Wind Velocity, Unit:	5 MPH	4 MPH	3 MPH
Wind Direction:	S	N	S
Dew Presence (Y/N):	N	N	N
Soil Temperature, Unit:	80 F	74 F	78 F
Soil Moisture:	NORMAL	ABONOR	NORMAL
% Cloud Cover:	5	90	30
Next Moisture Occurred On:	5-21-13	6-4-13	6-22-13
Time to Next Moisture, Unit:	7 HR	32 HR	2 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	ZEAMD	ZEAMD	ZEAMD
Stage Scale Used:	DESC	DESC	DESC
Stage Majority, Percent:	NA	V1	V4
Stage Minimum, Percent:		VE	V4
Stage Maximum, Percent:		V1	V5
Height, Unit:		4 IN	25 IN
Height Minimum, Maximum:		3 4	18 25

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	AMATA W	AMATA W	AMATA W
Stage Majority, Percent:	NA	2	See
Stage Minimum, Percent:		COTY	commnt
Stage Maximum, Percent:		4	
Height, Unit:		0.5 IN	
Height Minimum, Maximum:		0.25 0.5	
Density, Unit:		0.1 FT2	
Pest 2 Code, Type, Scale:	PANDI W	PANDI W	PANDI W
Stage Majority, Percent:	NA	2	See
Stage Minimum, Percent:		2	commnt
Stage Maximum, Percent:		3	
Height, Unit:		1 IN	
Height Minimum, Maximum:		0.5 1	
Density, Unit:		0.01 FT2	

Application Equipment

	A	B	C
Appl. Equipment:	CO2 sprayer	CO2 sprayer	CO2 sprayer
Equipment Type:	BACSPR	BACSPR	BACSPR
Operation Pressure, Unit:	30 PSI	30 PSI	30 PSI
Nozzle Type:	XR	XR	XR
Nozzle Size:	8002	8002	8002
Boom Length, Unit:	6.67 FT	6.67 FT	6.67 FT
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA

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Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							ZEAMD 10-21-13 Moisture Percent	ZEAMD 10-21-13 Yield bu/A
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code
1	ANTHEM F9387 AATREX 4L ROUNDUP POWERMAX N-PAK AMS	2.15 100 4 4.5 100	SE SC SC SL SL	0.16 lb ai/a 2.5 fl oz/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	9.5 fl oz/a 2.5 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST EPOST	A C C C C
2	ANTHEM ATZ HALEX GT NIS (ACTIVATOR 90) N-PAK AMS	4.5 4.389 100 100	SE CS SL SL	1.13 lb ai/a 1.98 lb ai/a 0.25 % v/v 2.5 % v/v	32 fl oz/a 3.6 pt/a 0.25 % v/v 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
3	ANTHEM ATZ F9387 AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.5 100 4 4.5 100	SE SC SC SL SL	1.13 lb ai/a 2.5 fl oz/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	32 fl oz/a 2.5 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST EPOST	A C C C C
4	ANTHEM ATZ AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.5 4 4.5 100	SE SC SL SL	1.13 lb ai/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	32 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		SPIKE SPIKE SPIKE SPIKE	B B B B
5	CORVUS LAUDIS ROUNDUP POWERMAX N-PAK AMS	2.63 3.5 4.5 100	SC SC SL SL	0.103 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 2.5 % v/v	5 fl oz/a 3 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
6	LUMAX EZ STATUS ROUNDUP POWERMAX N-PAK AMS	3.764 56 4.5 100	SE WG SL SL	2.82 lb ai/a 0.0875 lb ae/a 0.77 lb ae/a 2.5 % v/v	3 qt/a 2.5 oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
7	BICEP II MAGNUM CALLISTO ROUNDUP POWERMAX N-PAK AMS	5.5 4 4.5 100	SC SC SL SL	2.75 lb ai/a 0.094 lb ai/a 0.77 lb ae/a 2.5 % v/v	2 qt/a 3 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
8	DEGREE XTRA AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.04 4 4.5 100	CS SC SL SL	3.03 lb ai/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	3 qt/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
9	ANTHEM ANTHEM ATZ ROUNDUP POWERMAX N-PAK AMS	2.15 4.5 4.5 100	SE SE SL SL	0.168 lb ai/a 1.13 lb ai/a 0.77 lb ae/a 2.5 % v/v	10 fl oz/a 32 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
10	NONTREATED							
LSD (P=.05)							1.90	20.2
Standard Deviation							1.11	11.8
CV							6.44	5.72
Replicate F							0.964	1.961
Replicate Prob(F)							0.4003	0.1696
Treatment F							0.540	2.413
Treatment Prob(F)							0.8268	0.0534

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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							15 DA-A	5 DA-B	15 DA-B	30 DA-A	5 DA-C	30 DA-B	15 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code				
1	ANTHEM F9387	2.15	SE	0.16	lb ai/a	9.5	fl oz/a	PRE	A	0 a	0 b	0 a	0 a
	AATREX 4L	100	SC	2.5	fl oz/a	2.5	fl oz/a	EPOST	C		3 a	0 a	0 a
	ROUNDUP POWERMAX	4	SC	0.5	lb ai/a	16	fl oz/a	EPOST	C				
	N-PAK AMS	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	C				
		100	SL	2.5	% v/v	2.5	% v/v	EPOST	C				
2	ANTHEM ATZ	4.5	SE	1.13	lb ai/a	32	fl oz/a	PRE	A	0 a	0 b	0 a	0 a
	HALEX GT	4.389	CS	1.98	lb ai/a	3.6	pt/a	EPOST	C		1 a	0 a	0 a
	NIS (ACTIVATOR 90)	100	SL	0.25	% v/v	0.25	% v/v	EPOST	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	EPOST	C				
3	ANTHEM ATZ	4.5	SE	1.13	lb ai/a	32	fl oz/a	PRE	A	0 a	0 b	0 a	1 a
	F9387	100	SC	2.5	fl oz/a	2.5	fl oz/a	EPOST	C		1 a	1 a	1 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	EPOST	C				
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	EPOST	C				
4	ANTHEM ATZ	4.5	SE	1.13	lb ai/a	32	fl oz/a	SPIKE	B	3 a	9 a	3 a	3 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	SPIKE	B		1 a	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	SPIKE	B				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	SPIKE	B				
5	CORVUS	2.63	SC	0.103	lb ai/a	5	fl oz/a	PRE	A	0 a	0 b	0 a	0 a
	LAUDIS	3.5	SC	0.082	lb ai/a	3	fl oz/a	EPOST	C		1 a	1 a	1 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	EPOST	C				
6	LUMAX EZ	3.764	SE	2.82	lb ai/a	3	qt/a	PRE	A	0 a	0 b	0 a	0 a
	STATUS	56	WG	0.0875	lb ae/a	2.5	oz/a	EPOST	C		0 a	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	EPOST	C				
7	BICEP II MAGNUM	5.5	SC	2.75	lb ai/a	2	qt/a	PRE	A	0 a	0 b	0 a	0 a
	CALLISTO	4	SC	0.094	lb ai/a	3	fl oz/a	EPOST	C		2 a	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	EPOST	C				
8	DEGREE XTRA	4.04	CS	3.03	lb ai/a	3	qt/a	PRE	A	0 a	0 b	0 a	0 a
	AATREX 4L	4	SC	0.5	lb ai/a	16	fl oz/a	EPOST	C		2 a	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	EPOST	C				
9	ANTHEM	2.15	SE	0.168	lb ai/a	10	fl oz/a	PRE	A	0 a	0 b	0 a	0 a
	ANTHEM ATZ	4.5	SE	1.13	lb ai/a	32	fl oz/a	EPOST	C		3 a	0 a	0 a
	ROUNDUP POWERMAX	4.5	SL	0.77	lb ae/a	22	fl oz/a	EPOST	C				
	N-PAK AMS	100	SL	2.5	% v/v	2.5	% v/v	EPOST	C				
10	NONTREATED									0 a	0 b	0 a	0 a
LSD (P=.05)							0.0	0.9	0.0	0.0	2.8	1.4	1.4
Standard Deviation							0.0	0.5	0.0	0.0	1.6	0.8	0.8
CV							0.0	60.86	0.0	0.0	118.24	397.91	397.91
Replicate F							0.000	1.000	0.000	0.000	0.319	0.474	0.474
Replicate Prob(F)							1.0000	0.3874	1.0000	1.0000	0.7308	0.6302	0.6302
Treatment F							0.000	81.000	0.000	0.000	1.204	0.842	0.842
Treatment Prob(F)							1.0000	0.0001	1.0000	1.0000	0.3506	0.5887	0.5887

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code		
1	ANTHEM F9387 AATREX 4L ROUNDUP POWERMAX N-PAK AMS	2.15 100 4 4.5 100	SE SC SC SL SL		0.16 lb ai/a 2.5 fl oz/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	9.5 fl oz/a 2.5 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST EPOST	A C C C C	99 a	99 a
2	ANTHEM ATZ HALEX GT NIS (ACTIVATOR 90) N-PAK AMS	4.5 4.389 100 100	SE CS SL SL		1.13 lb ai/a 1.98 lb ai/a 0.25 % v/v 2.5 % v/v	32 fl oz/a 3.6 pt/a 0.25 % v/v 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C	99 a	99 a
3	ANTHEM ATZ F9387 AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.5 100 4 4.5 100	SE SC SC SL SL		1.13 lb ai/a 2.5 fl oz/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	32 fl oz/a 2.5 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST EPOST	A C C C C	99 a	99 a
4	ANTHEM ATZ AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.5 4 4.5 100	SE SC SL SL		1.13 lb ai/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	32 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		SPIKE SPIKE SPIKE SPIKE	B B B B	0 a	99 a
5	CORVUS LAUDIS ROUNDUP POWERMAX N-PAK AMS	2.63 3.5 4.5 100	SC SC SL SL		0.103 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 2.5 % v/v	5 fl oz/a 3 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C	99 a	99 a
6	LUMAX EZ STATUS ROUNDUP POWERMAX N-PAK AMS	3.764 56 4.5 100	SE WG SL SL		2.82 lb ai/a 0.0875 lb ae/a 0.77 lb ae/a 2.5 % v/v	3 qt/a 2.5 oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C	99 a	99 a
7	BICEP II MAGNUM CALLISTO ROUNDUP POWERMAX N-PAK AMS	5.5 4 4.5 100	SC SC SL SL		2.75 lb ai/a 0.094 lb ai/a 0.77 lb ae/a 2.5 % v/v	2 qt/a 3 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C	99 a	99 a
8	DEGREE XTRA AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.04 4 4.5 100	CS SC SL SL		3.03 lb ai/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	3 qt/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C	99 a	99 a
9	ANTHEM ANTHEM ATZ ROUNDUP POWERMAX N-PAK AMS	2.15 4.5 4.5 100	SE SE SL SL		0.168 lb ai/a 1.13 lb ai/a 0.77 lb ae/a 2.5 % v/v	10 fl oz/a 32 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C	99 a	99 a
10	NONTREATED									0 a	0 a
LSD (P=.05)							0.0	0.0	0.6	0.6	0.6
Standard Deviation							0.0	0.0	0.4	0.4	0.4
CV							0.0	0.0	0.41	0.41	0.41
Replicate F							0.000	0.000	1.000	1.000	1.000
Replicate Prob(F)							1.0000	1.0000	0.3874	0.3874	0.3874
Treatment F							0.000	0.000	22020.252	22020.252	22020.252
Treatment Prob(F)							1.0000	1.0000	0.0001	0.0001	0.0001

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Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code
1	ANTHEM F9387 AATREX 4L ROUNDUP POWERMAX N-PAK AMS	2.15 SE 100 SC 4 SC 4.5 SL 100 SL		0.16 lb ai/a 2.5 fl oz/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a oz/a ai/a ae/a v/v	9.5 fl oz/a 2.5 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST EPOST	A C C C C
2	ANTHEM ATZ HALEX GT NIS (ACTIVATOR 90) N-PAK AMS	4.5 SE 4.389 CS 100 SL 100 SL		1.13 lb ai/a 1.98 lb ai/a 0.25 % v/v 2.5 % v/v	ai/a ai/a v/v v/v	32 fl oz/a 3.6 pt/a 0.25 % v/v 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
3	ANTHEM ATZ F9387 AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.5 SE 100 SC 4 SC 4.5 SL 100 SL		1.13 lb ai/a 2.5 fl oz/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a oz/a ai/a ae/a v/v	32 fl oz/a 2.5 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST EPOST	A C C C C
4	ANTHEM ATZ AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.5 SE 4 SC 4.5 SL 100 SL		1.13 lb ai/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a ai/a ae/a v/v	32 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		SPIKE SPIKE SPIKE SPIKE	B B B B
5	CORVUS LAUDIS ROUNDUP POWERMAX N-PAK AMS	2.63 SC 3.5 SC 4.5 SL 100 SL		0.103 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a ai/a ae/a v/v	5 fl oz/a 3 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
6	LUMAX EZ STATUS ROUNDUP POWERMAX N-PAK AMS	3.764 SE 56 WG 4.5 SL 100 SL		2.82 lb ai/a 0.0875 lb ae/a 0.77 lb ae/a 2.5 % v/v	ai/a ae/a ae/a v/v	3 qt/a 2.5 oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
7	BICEP II MAGNUM CALLISTO ROUNDUP POWERMAX N-PAK AMS	5.5 SC 4 SC 4.5 SL 100 SL		2.75 lb ai/a 0.094 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a ai/a ae/a v/v	2 qt/a 3 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
8	DEGREE XTRA AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.04 CS 4 SC 4.5 SL 100 SL		3.03 lb ai/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a ai/a ae/a v/v	3 qt/a 16 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
9	ANTHEM ANTHEM ATZ ROUNDUP POWERMAX N-PAK AMS	2.15 SE 4.5 SE 4.5 SL 100 SL		0.168 lb ai/a 1.13 lb ai/a 0.77 lb ae/a 2.5 % v/v	ai/a ai/a ae/a v/v	10 fl oz/a 32 fl oz/a 22 fl oz/a 2.5 % v/v		PRE EPOST EPOST EPOST	A C C C
10	NONTREATED								
LSD (P=.05)							0.6	0.6	0.8
Standard Deviation							0.4	0.4	0.5
CV							0.41	0.41	0.51
Replicate F							1.000	1.000	0.643
Replicate Prob(F)							0.3874	0.3874	0.5374
Treatment F							22020.252	22020.252	14134.805
Treatment Prob(F)							0.0001	0.0001	0.0001

Southern Illinois University

Anthem Tank Mixtures in Corn.

Trial ID: 13-DSO-AnthemCN Location: De Soto, IL Trial Year: 2013
Investigator: Bryan Young

Pest Code Crop Code Rating Date Rating Type Rating Unit Rating Timing Trt-Eval Interval							PANDI 6-4-13 Control Percent	PANDI 6-7-13 Control Percent	PANDI 6-17-13 Control Percent	PANDI 6-19-13 Control Percent	PANDI 6-25-13 Control Percent	PANDI 7-2-13 Control Percent	PANDI 7-5-13 Control Percent
							15 DA-A	5 DA-B	15 DA-B	30 DA-A	5 DA-C	30 DA-B	15 DA-C
Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Other Rate Rate Unit	Growth Stage	Appl Code					
1	ANTHEM F9387 AATREX 4L ROUNDUP POWERMAX N-PAK AMS	2.15 100 4 4.5 100	SE SC SC SL SL		0.16 lb ai/a 2.5 fl oz/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	9.5 fl oz/a 2.5 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v	PRE EPOST EPOST EPOST EPOST	A C C C C	99 a	99 a	99 a	99 a	99 a
2	ANTHEM ATZ HALEX GT NIS (ACTIVATOR 90) N-PAK AMS	4.5 4.389 100 100	SE CS SL SL		1.13 lb ai/a 1.98 lb ai/a 0.25 % v/v 2.5 % v/v	32 fl oz/a 3.6 pt/a 0.25 % v/v 2.5 % v/v	PRE EPOST EPOST EPOST	A C C C	99 a	99 a	99 a	99 a	99 a
3	ANTHEM ATZ F9387 AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.5 100 4 4.5 100	SE SC SC SL SL		1.13 lb ai/a 2.5 fl oz/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	32 fl oz/a 2.5 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v	PRE EPOST EPOST EPOST EPOST	A C C C C	99 a	99 a	98 a	98 a	99 a
4	ANTHEM ATZ AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.5 4 4.5 100	SE SC SL SL		1.13 lb ai/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	32 fl oz/a 16 fl oz/a 22 fl oz/a 2.5 % v/v	SPIKE SPIKE SPIKE SPIKE	B B B B	0 a	99 a	99 a	98 b	96 c
5	CORVUS LAUDIS ROUNDUP POWERMAX N-PAK AMS	2.63 3.5 4.5 100	SC SC SL SL		0.103 lb ai/a 0.082 lb ai/a 0.77 lb ae/a 2.5 % v/v	5 fl oz/a 3 fl oz/a 22 fl oz/a 2.5 % v/v	PRE EPOST EPOST EPOST	A C C C	99 a	99 a	99 a	99 a	99 a
6	LUMAX EZ STATUS ROUNDUP POWERMAX N-PAK AMS	3.764 56 4.5 100	SE WG SL SL		2.82 lb ai/a 0.0875 lb ae/a 0.77 lb ae/a 2.5 % v/v	3 qt/a 2.5 oz/a 22 fl oz/a 2.5 % v/v	PRE EPOST EPOST EPOST	A C C C	99 a	99 a	98 a	98 a	98 ab
7	BICEP II MAGNUM CALLISTO ROUNDUP POWERMAX N-PAK AMS	5.5 4 4.5 100	SC SC SL SL		2.75 lb ai/a 0.094 lb ai/a 0.77 lb ae/a 2.5 % v/v	2 qt/a 3 fl oz/a 22 fl oz/a 2.5 % v/v	PRE EPOST EPOST EPOST	A C C C	99 a	99 a	99 a	98 ab	98 b
8	DEGREE XTRA AATREX 4L ROUNDUP POWERMAX N-PAK AMS	4.04 4 4.5 100	CS SC SL SL		3.03 lb ai/a 0.5 lb ai/a 0.77 lb ae/a 2.5 % v/v	3 qt/a 16 fl oz/a 22 fl oz/a 2.5 % v/v	PRE EPOST EPOST EPOST	A C C C	99 a	99 a	98 a	98 a	98 ab
9	ANTHEM ANTHEM ATZ ROUNDUP POWERMAX N-PAK AMS	2.15 4.5 4.5 100	SE SE SL SL		0.168 lb ai/a 1.13 lb ai/a 0.77 lb ae/a 2.5 % v/v	10 fl oz/a 32 fl oz/a 22 fl oz/a 2.5 % v/v	PRE EPOST EPOST EPOST	A C C C	99 a	99 a	99 a	99 a	99 a
10	NONTREATED								0 a	0 a	0 b	0 b	0 d
LSD (P=.05)							0.0	0.0	1.1	1.1	0.9	1.1	1.1
Standard Deviation							0.0	0.0	0.6	0.6	0.5	0.6	0.6
CV							0.0	0.0	0.71	0.71	0.57	0.71	0.71
Replicate F							0.000	0.000	1.000	1.000	4.043	4.333	4.333
Replicate Prob(F)							1.0000	1.0000	0.3874	0.3874	0.0355	0.0291	0.0291
Treatment F							0.000	0.000	7318.529	7318.529	11422.045	7268.529	7268.529
Treatment Prob(F)							1.0000	1.0000	0.0001	0.0001	0.0001	0.0001	0.0001

Southern Illinois University

Anthem Tank Mixtures in Corn.

Trial ID: 13-DSO-AnthemCN Location: De Soto, IL Trial Year: 2013
Investigator: Bryan Young

Pest Code									PANDI	
Crop Code										
Rating Date									7-20-13	
Rating Type									Control	
Rating Unit									Percent	
Rating Timing									61 DA-A	
Trt-Eval Interval									30 DA-C	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Other Rate	Other Rate Unit	Growth Stage	Appl Code	
1	ANTHEM F9387	2.15	SE	0.16 lb ai/a		9.5 fl oz/a		PRE	A	99 a
	AATREX 4L	100	SC	2.5 fl oz/a		2.5 fl oz/a		EPOST	C	
	ROUNDUP POWERMAX	4	SC	0.5 lb ai/a		16 fl oz/a		EPOST	C	
	N-PAK AMS	4.5	SL	0.77 lb ae/a		22 fl oz/a		EPOST	C	
2	ANTHEM ATZ	4.5	SE	1.13 lb ai/a		32 fl oz/a		PRE	A	98 a
	HALEX GT	4.389	CS	1.98 lb ai/a		3.6 pt/a		EPOST	C	
	NIS (ACTIVATOR 90)	100	SL	0.25 % v/v		0.25 % v/v		EPOST	C	
	N-PAK AMS	100	SL	2.5 % v/v		2.5 % v/v		EPOST	C	
3	ANTHEM ATZ F9387	4.5	SE	1.13 lb ai/a		32 fl oz/a		PRE	A	99 a
	AATREX 4L	100	SC	2.5 fl oz/a		2.5 fl oz/a		EPOST	C	
	ROUNDUP POWERMAX	4	SC	0.5 lb ai/a		16 fl oz/a		EPOST	C	
	N-PAK AMS	4.5	SL	0.77 lb ae/a		22 fl oz/a		EPOST	C	
		100	SL	2.5 % v/v		2.5 % v/v		EPOST	C	
4	ANTHEM ATZ	4.5	SE	1.13 lb ai/a		32 fl oz/a		SPIKE	B	96 b
	AATREX 4L	4	SC	0.5 lb ai/a		16 fl oz/a		SPIKE	B	
	ROUNDUP POWERMAX	4.5	SL	0.77 lb ae/a		22 fl oz/a		SPIKE	B	
	N-PAK AMS	100	SL	2.5 % v/v		2.5 % v/v		SPIKE	B	
5	CORVUS	2.63	SC	0.103 lb ai/a		5 fl oz/a		PRE	A	99 a
	LAUDIS	3.5	SC	0.082 lb ai/a		3 fl oz/a		EPOST	C	
	ROUNDUP POWERMAX	4.5	SL	0.77 lb ae/a		22 fl oz/a		EPOST	C	
	N-PAK AMS	100	SL	2.5 % v/v		2.5 % v/v		EPOST	C	
6	LUMAX EZ	3.764	SE	2.82 lb ai/a		3 qt/a		PRE	A	98 a
	STATUS	56	WG	0.0875 lb ae/a		2.5 oz/a		EPOST	C	
	ROUNDUP POWERMAX	4.5	SL	0.77 lb ae/a		22 fl oz/a		EPOST	C	
	N-PAK AMS	100	SL	2.5 % v/v		2.5 % v/v		EPOST	C	
7	BICEP II MAGNUM	5.5	SC	2.75 lb ai/a		2 qt/a		PRE	A	99 a
	CALLISTO	4	SC	0.094 lb ai/a		3 fl oz/a		EPOST	C	
	ROUNDUP POWERMAX	4.5	SL	0.77 lb ae/a		22 fl oz/a		EPOST	C	
	N-PAK AMS	100	SL	2.5 % v/v		2.5 % v/v		EPOST	C	
8	DEGREE XTRA	4.04	CS	3.03 lb ai/a		3 qt/a		PRE	A	98 a
	AATREX 4L	4	SC	0.5 lb ai/a		16 fl oz/a		EPOST	C	
	ROUNDUP POWERMAX	4.5	SL	0.77 lb ae/a		22 fl oz/a		EPOST	C	
	N-PAK AMS	100	SL	2.5 % v/v		2.5 % v/v		EPOST	C	
9	ANTHEM	2.15	SE	0.168 lb ai/a		10 fl oz/a		PRE	A	99 a
	ANTHEM ATZ	4.5	SE	1.13 lb ai/a		32 fl oz/a		EPOST	C	
	ROUNDUP POWERMAX	4.5	SL	0.77 lb ae/a		22 fl oz/a		EPOST	C	
	N-PAK AMS	100	SL	2.5 % v/v		2.5 % v/v		EPOST	C	
10	NONTREATED									0 c
LSD (P=.05)										1.5
Standard Deviation										0.9
CV										0.97
Replicate F										4.116
Replicate Prob(F)										0.0337
Treatment F										3942.835
Treatment Prob(F)										0.0001

Anthem Tank Mixtures in Corn.

Trial ID: 13-DSO-AnthemCN Location: De Soto, IL Trial Year: 2013
Investigator: Bryan Young

Trial Comments

1. Protocol:FMC (Anthem corn).
2. CI 15 and 30 DA-A, 15 and 30 DA-B, 15 and 30 DA-C;
WC 15, 30, and 60 DA-A, 5, 15, and 30 DA-B, 15 and 5, 15, and 30 DA-C.
3. Blanket burndown application of glyphosate (1.5 lbae/A) plus Salvo (12 floz/A) was applied to all plots on 4-2-13.
Blanket application prior to planting of Gramoxone (3 pt/A) plus COC 1%) plus Warrior (1.92 oz/A) was applied to all plots on 5-20-13.
4. Yield if possible.
5. At application C (EPOST) on 6-20-13, there was no new AMATA emergence, probably due to dry soil conditions.
6. AMATA-HR = Herbicide-resistant waterhemp (glyphosate).
7. Following the PRE application the first rainfall event, beginning the same day, was 2.08 inch over 4 days.
Following the SPIKE application the first rainfall event, beginning 2 days later, was only 0.13 inch over 7 days.
Following the EPOST application the first rainfall event, beginning 2 days later, was 0.34 inch over 2 days, then 2.71 inch over 6 days beginning 6 days after the EPOST application.
8. Harvest 10-21-13, (2) 30 inch rows by 26.5 ft.