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Weed Control in Corn With Anthem and Anthem ATZ

Trial ID: 13PRPOC3
Protocol ID: 13PRPOC3
Project ID: PYRX.COR.13.JPR.01

Location: Trial Year:
Investigator: Dr. Mark M. Loux
Study Director:
Sponsor Contact: Joe Reed, FMC

Crop Description

Crop 1: ZEAMX Zea mays
Variety: Pioneer P1018AMX
Description: RR/LL
Planting Rate, Unit: 32097 S/A
Depth, Unit: 2 IN
Row Spacing, Unit: 30 IN
Soil Temperature, Unit: 58 F
Soil Moisture: NORMAL normal, adequate
Seed Bed: MEDIUM medium

Planting Date: May-6-2013
Planting Method: PLANTD planted
Planting Equipment: FPP Finger Pickup Planter
Emergence Date: May-17-2013

Pest Description

- Pest 1 Type:** W **Code:** AMARE *Amaranthus retroflexus*
Common Name: Redroot pigweed
- Pest 2 Type:** W **Code:** IPOHE *Ipomoea hederacea*
Common Name: Ivyleaf morningglory
- Pest 3 Type:** W **Code:** CHEAL *Chenopodium album*
Common Name: Common lambsquarters
- Pest 4 Type:** W **Code:** AMBTR *Ambrosia trifida*
Common Name: Giant ragweed
- Pest 5 Type:** W **Code:** ABUTH *Abutilon theophrasti*
Common Name: velvetleaf
- Pest 6 Type:** W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail
- Pest 7 Type:** W **Code:** STEME *Stellaria media*
Common Name: Common chickweed

Site and Design

Treated Plot Width: 6.67 FT
Treated Plot Length: 40 FT
Treated Plot Area: 266.8 FT2
Replications: 4

Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)

No. Previous Crop Year
1. soybean 2012

Soil Description

Description Name: F-8 Middle
% OM: 2
pH: 7
CEC: 11.5
Texture: CL clay loam
Soil Name: Celina
Fert. Level: G good
Soil Drainage: G good

Application Description

	A	B
Application Date:	May-6-2013	May-21-2013
Appl. Start Time:	11:30 AM	9:15 AM
Appl. Stop Time:	12:00 PM	9:45 AM
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	V3
Application Placement:	BROSOI	BROFOL
Air Temperature, Unit:	60 F	75 F
% Relative Humidity:	100	67
Wind Velocity, Unit:	7 MPH	5 MPH
Wind Direction:	SE	SW
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	58 F	70 F
Soil Moisture:	NORMAL	NORMAL
% Cloud Cover:	100	40
Next Moisture Occurred On:	May-6-2013	May-22-2013
Time to Next Moisture, Unit:	1 Hr	1 DAY

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Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:		BBCH
Stage Majority, Percent:	V3	100
Height, Unit:	3	IN
Height Minimum, Maximum:	2	3

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	AMARE W	AMARE W
Stage Majority, Percent:		12 100
Height, Unit:		0.5 IN
Height Minimum, Maximum:		0.5 0.5
Pest 2 Code, Type, Scale:	IPOHE W	IPOHE W
Stage Majority, Percent:		10 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 1
Pest 3 Code, Type, Scale:	CHEAL W	CHEAL W
Stage Majority, Percent:		12 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 1
Density, Unit:		4 M2
Pest 4 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:		14 100
Height, Unit:		3 IN
Height Minimum, Maximum:		1 3
Density, Unit:		32 M2
Pest 5 Code, Type, Scale:	ABUTH W	ABUTH W
Stage Majority, Percent:		11 100
Height, Unit:		0.5 IN
Height Minimum, Maximum:		0.5 0.5
Pest 6 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:		13 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 1
Density, Unit:		4 M2
Pest 7 Code, Type, Scale:	STEME W	STEME W
Stage Majority, Percent:		67 100
Diameter, Unit:		3 IN

Application Equipment

	A	B
Appl. Equipment:	6 foot boom	10' AI XR
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	46 PSI	46 PSI
Nozzle Type:	AI XR	AI XR
Nozzle Size:	110015	110015
Nozzle Spacing, Unit:	18 IN	18 IN
Boom Length, Unit:	6 FT	10 FT
Boom Height, Unit:	20 IN	20 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA
Mix Size, Unit:	1 Liters	0.33 Gallons
Propellant:	CO2	CO2

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Trial ID: 13PRPOC3
 Protocol ID: 13PRPOC3
 Project ID: PYRX.COR.13.JPR.01

Location: Trial Year:
 Investigator: Dr. Mark M. Loux
 Study Director:
 Sponsor Contact: Joe Reed, FMC

Pest Type		W Weed	W Weed	W Weed	W Weed
Pest Code		SETFA	AMBTR	AMBEL	CHEAL
Pest Scientific Name		Setaria faberi	Ambrosia trifida	Ambrosia artemisiifolia	Chenopodium album
Pest Name		Giant foxtail	Giant ragweed	Common ragweed	Common lambsquarters
Crop Code	ZEAMX				
BBCH Scale	BCOR				
Crop Scientific Name	Zea mays				
Crop Name	Corn				
Rating Date	May-21-2013	May-21-2013	May-21-2013	May-21-2013	May-21-2013
Rating Type	PHYGEN	CONTROL	CONTROL	CONTROL	CONTROL
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Days After First/Last Applic.	15 15	15 15	15 15	15 15	15 15
Trt-Eval Interval	15 DA-A	15 DA-A	15 DA-A	15 DA-A	15 DA-A
Plant-Eval Interval	15 DP-1	15 DP-1	15 DP-1	15 DP-1	15 DP-1
Days After Emergence	4 DE-1	4 DE-1	4 DE-1	4 DE-1	4 DE-1
ARM Action Codes			AA		
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	1	2	3	4	5
1	miss applied						0 a	100 a	87 a	100 a	100 a
2	Anthem ATZ	32 oz/a		PRE	A		0 a	100 a	91 a	100 a	100 a
3	Anthem ATZ	32 oz/a		PRE	A		0 a	98 a	95 a	100 a	100 a
3	Atrazine	0.5 qt/a		PRE	A						
4	Anthem ATZ	32 oz/a		PRE	A		0 a	100 a	82 a	100 a	100 a
4	Atrazine	0.5 qt/a		V-3	B						
4	Roundup PowerMax	22 oz/a		V-3	B						
4	N-PAK AMS	1.5 qt/a		V-3	B						
5	Anthem	8 oz/a		PRE	A		0 a	100 a	68 a	100 a	100 a
5	F9387	3 oz/a		V-3	B						
5	Roundup PowerMax	22 oz/a		V-3	B						
5	N-PAK AMS	1.5 qt/a		V-3	B						
6	Anthem ATZ	32 oz/a		PRE	A		0 a	100 a	89 a	100 a	100 a
6	F9387	3 oz/a		V-3	B						
6	Roundup PowerMax	22 oz/a		V-3	B						
6	N-PAK AMS	1.5 qt/a		V-3	B						
7	Anthem ATZ	32 oz/a		PRE	A		0 a	100 a	85 a	100 a	100 a
7	Sharpen	2 oz/a		PRE	A						
7	Roundup PowerMax	22 oz/a		V-3	B						
7	N-PAK AMS	1.5 qt/a		V-3	B						
8	Verdict	14 oz/a		PRE	A		0 a	100 a	99 a	100 a	100 a
8	Roundup PowerMax	22 oz/a		V-3	B						
8	N-PAK AMS	1.5 qt/a		V-3	B						
9	Bicep Lite II Magnum	1.9 qt/a		PRE	A		0 a	96 a	94 a	100 a	100 a
9	Callisto	3 oz/a		V-3	B						
9	Roundup PowerMax	22 oz/a		V-3	B						
9	N-PAK AMS	1.5 qt/a		V-3	B						
10	Lumax EZ	2.5 qt/a		PRE	A		0 a	95 a	94 a	100 a	100 a
10	Roundup PowerMax	22 oz/a		V-3	B						
10	N-PAK AMS	1.5 qt/a		V-3	B						

Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)
 t=Mean descriptions are reported in transformed data units, and are not de-transformed.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type		W Weed	W Weed	W Weed	W Weed
Pest Code		SETFA	AMBTR	AMBEL	CHEAL
Pest Scientific Name		Setaria faberi	Ambrosia trifi>	Ambrosia artem>	Chenopodium al>
Pest Name		Giant foxtail	Giant ragweed	Common ragweed	Common lambsqu>
Crop Code		ZEAMX			
BBCH Scale		BCOR			
Crop Scientific Name		Zea mays			
Crop Name		Corn			
Rating Date		May-21-2013	May-21-2013	May-21-2013	May-21-2013
Rating Type		PHYGEN	CONTROL	CONTROL	CONTROL
Rating Unit		%	%	%	%
Number of Subsamples		1	1	1	1
Days After First/Last Applic.		15 15	15 15	15 15	15 15
Trt-Eval Interval		15 DA-A	15 DA-A	15 DA-A	15 DA-A
Plant-Eval Interval		15 DP-1	15 DP-1	15 DP-1	15 DP-1
Days After Emergence		4 DE-1	4 DE-1	4 DE-1	4 DE-1
ARM Action Codes				AA	
Number of Decimals		0	0	0	0
Trt Treatment	Other	Other	Growth	Appl	
No. Name	Rate	Rate	Unit Stage	Code	
					1 2 3 4 5
11 Anthem ATZ	32 oz/a		PRE A		0 a 100 a 87 a 100 a 100 a
11 Hornet	3 oz/a		PRE A		
11 Roundup PowerMax	22 oz/a		V-3 B		
11 N-PAK AMS	1.5 qt/a		V-3 B		
12 Surestart	2 pt/a		PRE A		0 a 100 a 84 a 100 a 100 a
12 Roundup PowerMax	22 oz/a		V-3 B		
12 N-PAK AMS	1.5 qt/a		V-3 B		
LSD (P=.05)					0.0 5.8 15.1t 0.0 0.0
Standard Deviation					0.0 4.0 10.4t 0.0 0.0
CV					0.0 4.03 14.76 0.0 0.0
Bartlett's X2					0.0 1.317 15.667 0.0 0.0
P(Bartlett's X2)					. 0.518 0.154 . .
Skewness					. -4.1758* 0.1177 . .
Kurtosis					. 17.179* -0.688 . .
Replicate F					0.000 0.382 0.912 0.000 0.000
Replicate Prob(F)					1.0000 0.7669 0.4457 1.0000 1.0000
Treatment F					0.000 0.794 1.977 0.000 0.000
Treatment Prob(F)					1.0000 0.6447 0.0643 1.0000 1.0000

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Pest Type	W Weed	W Weed	W Weed	W Weed							
Pest Code	ABUTH	AMARE	SETFA	AMBTR							
Pest Scientific Name	Abutilon theop>	Amaranthus ret>	Setaria faberi	Ambrosia trifi>							
Pest Name	velvetleaf	Redroot pigweed	Giant foxtail	Giant ragweed							
Crop Code			ZEAMX	ZEAMX							
BBCH Scale			BCOR	BCOR							
Crop Scientific Name			Zea mays	Zea mays							
Crop Name			Corn	Corn							
Rating Date	May-21-2013	May-21-2013	May-28-2013	Jun-3-2013							
Rating Type	CONTROL	CONTROL	PHYNEC	PHYLMA							
Rating Unit	%	%	%	%							
Number of Subsamples	1	1	1	1							
Days After First/Last Applic.	15 15	15 15	22 7	28 13							
Trt-Eval Interval	15 DA-A	15 DA-A	7 DA-B	13 DA-B							
Plant-Eval Interval	15 DP-1	15 DP-1	22 DP-1	28 DP-1							
Days After Emergence	4 DE-1	4 DE-1	11 DE-1	17 DE-1							
ARM Action Codes			AA	AA							
Number of Decimals	0	0	0	0							
Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Stage	6	7	8	9	10	11
1	miss applied					100 a	100 a	19 a	37 a	100 a	64 bc
2	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	0 c	0 b	100 a	58 c
3	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	0 c	0 b	100 a	63 bc
3	Atrazine	0.5 qt/a		PRE	A						
4	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	0 c	0 b	100 a	69 bc
4	Atrazine	0.5 qt/a		V-3	B						
4	Roundup PowerMax	22 oz/a		V-3	B						
4	N-PAK AMS	1.5 qt/a		V-3	B						
5	Anthem	8 oz/a		PRE	A	100 a	100 a	4 b	0 b	100 a	76 b
5	F9387	3 oz/a		V-3	B						
5	Roundup PowerMax	22 oz/a		V-3	B						
5	N-PAK AMS	1.5 qt/a		V-3	B						
6	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	4 b	0 b	100 a	70 bc
6	F9387	3 oz/a		V-3	B						
6	Roundup PowerMax	22 oz/a		V-3	B						
6	N-PAK AMS	1.5 qt/a		V-3	B						
7	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	0 c	0 b	100 a	70 bc
7	Sharpen	2 oz/a		PRE	A						
7	Roundup PowerMax	22 oz/a		V-3	B						
7	N-PAK AMS	1.5 qt/a		V-3	B						
8	Verdict	14 oz/a		PRE	A	100 a	100 a	0 c	0 b	100 a	97 a
8	Roundup PowerMax	22 oz/a		V-3	B						
8	N-PAK AMS	1.5 qt/a		V-3	B						
9	Bicep Lite II Magnum	1.9 qt/a		PRE	A	95 b	100 a	0 c	0 b	100 a	78 b
9	Callisto	3 oz/a		V-3	B						
9	Roundup PowerMax	22 oz/a		V-3	B						
9	N-PAK AMS	1.5 qt/a		V-3	B						
10	Lumax EZ	2.5 qt/a		PRE	A	100 a	100 a	0 c	0 b	100 a	60 bc
10	Roundup PowerMax	22 oz/a		V-3	B						
10	N-PAK AMS	1.5 qt/a		V-3	B						

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Pest Type	W Weed	W Weed	W Weed	W Weed						
Pest Code	ABUTH	AMARE	SETFA	AMBTR						
Pest Scientific Name	Abutilon theop>	Amaranthus ret>	Setaria faberi	Ambrosia trifi>						
Pest Name	velvetleaf	Redroot pigweed	Giant foxtail	Giant ragweed						
Crop Code			ZEAMX	ZEAMX						
BBCH Scale			BCOR	BCOR						
Crop Scientific Name			Zea mays	Zea mays						
Crop Name			Corn	Corn						
Rating Date	May-21-2013	May-21-2013	May-28-2013	Jun-3-2013						
Rating Type	CONTROL	CONTROL	PHYNEC	PHYLMA						
Rating Unit	%	%	%	%						
Number of Subsamples	1	1	1	1						
Days After First/Last Applic.	15 15	15 15	22 7	28 13						
Trt-Eval Interval	15 DA-A	15 DA-A	7 DA-B	13 DA-B						
Plant-Eval Interval	15 DP-1	15 DP-1	22 DP-1	28 DP-1						
Days After Emergence	4 DE-1	4 DE-1	11 DE-1	17 DE-1						
ARM Action Codes			AA	AA						
Number of Decimals	0	0	0	0						
Trt Treatment	Other Rate	Other Rate	Growth Unit	Appl Code	6	7	8	9	10	11
11 Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	0 c	0 b	100 a	63 bc
11 Hornet	3 oz/a		PRE	A						
11 Roundup PowerMax	22 oz/a		V-3	B						
11 N-PAK AMS	1.5 qt/a		V-3	B						
12 Surestart	2 pt/a		PRE	A	100 a	100 a	0 c	0 b	100 a	66 bc
12 Roundup PowerMax	22 oz/a		V-3	B						
12 N-PAK AMS	1.5 qt/a		V-3	B						
LSD (P=.05)	2.4	0.0					1.3	3.7t	3.3t	11.2
Standard Deviation	1.7	0.0					0.9	2.6t	2.3t	7.7
CV	1.67	0.0					39.96	68.39	2.57	11.17
Bartlett's X2	0.0	0.0					2.518	1.814	3.067	23.5
P(Bartlett's X2)	.	.					0.284	0.612	0.381	0.009*
Skewness	-4.7366*	.					2.7678*	2.8994*	-3.6439*	0.6708
Kurtosis	21.3233*	.					6.7808*	7.1269*	14.4678*	0.3557
Replicate F	1.000	0.000					0.236	1.736	2.138	4.239
Replicate Prob(F)	0.4051	1.0000					0.8704	0.1788	0.1142	0.0122
Treatment F	3.000	0.000					148.437	70.314	1.110	7.434
Treatment Prob(F)	0.0071	1.0000					0.0001	0.0001	0.3842	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed						
Pest Code	AMBEL	CHEAL	ABUTH	AMARE						
Pest Scientific Name	Ambrosia artem->	Chenopodium al->	Abutilon theop->	Amaranthus ret->						
Pest Name	Common ragweed	Common lambsqu>	velvetleaf	Redroot pigweed						
Crop Code					ZEAMX					
BBCH Scale					BCOR					
Crop Scientific Name					Zea mays					
Crop Name					Corn					
Rating Date	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-3-2013	Jun-20-2013					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYLMA					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	28 13	28 13	28 13	28 13	45 30					
Trt-Eval Interval	13 DA-B	13 DA-B	13 DA-B	13 DA-B	30 DA-B					
Plant-Eval Interval	28 DP-1	28 DP-1	28 DP-1	28 DP-1	45 DP-1					
Days After Emergence	17 DE-1	17 DE-1	17 DE-1	17 DE-1	34 DE-1					
ARM Action Codes										
Number of Decimals		0	0	0	0					
Trt Treatment	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	12	13	14	15	16
11 Anthem ATZ	32 oz/a		PRE	A		100.0 a	100 a	100 a	100 a	0 b
11 Hornet	3 oz/a		PRE	A						
11 Roundup PowerMax	22 oz/a		V-3	B						
11 N-PAK AMS	1.5 qt/a		V-3	B						
12 Surestart	2 pt/a		PRE	A		100.0 a	100 a	100 a	100 a	0 b
12 Roundup PowerMax	22 oz/a		V-3	B						
12 N-PAK AMS	1.5 qt/a		V-3	B						
LSD (P=.05)						0.00	0.2	0.2	0.2	2.1
Standard Deviation						0.00	0.1	0.1	0.1	1.4
CV						0.0	0.14	0.14	0.14	76.98
Bartlett's X2						0.0	0.0	0.0	0.0	0.0
P(Bartlett's X2)					
Skewness						.	-6.9282*	-6.9282*	-6.9282*	3.3564*
Kurtosis						.	48.0*	48.0*	48.0*	10.4011*
Replicate F						0.000	1.000	1.000	1.000	1.000
Replicate Prob(F)						1.0000	0.4051	0.4051	0.4051	0.4051
Treatment F						0.000	1.000	1.000	1.000	81.000
Treatment Prob(F)						1.0000	0.4671	0.4671	0.4671	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	SETFA	AMBTR	AMBEL	CHEAL	ABUTH				
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Ambrosia artem>	Chenopodium al>	Abutilon theop>				
Pest Name	Giant foxtail	Giant ragweed	Common ragweed	Common lambsqu>	velvetleaf				
Crop Code									
BBCH Scale									
Crop Scientific Name									
Crop Name									
Rating Date	Jun-20-2013	Jun-20-2013	Jun-20-2013	Jun-20-2013	Jun-20-2013				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1				
Days After First/Last Applic.	45 30	45 30	45 30	45 30	45 30				
Trt-Eval Interval	30 DA-B	30 DA-B	30 DA-B	30 DA-B	30 DA-B				
Plant-Eval Interval	45 DP-1	45 DP-1	45 DP-1	45 DP-1	45 DP-1				
Days After Emergence	34 DE-1	34 DE-1	34 DE-1	34 DE-1	34 DE-1				
ARM Action Codes									
Number of Decimals	0	0	0	0	0				
Trt Treatment	Other Rate	Other Rate	Growth Unit	Appl Code	17	18	19	20	21
1 miss applied					93 a	53 ab	100 a	100 a	100 a
2 Anthem ATZ	32 oz/a		PRE	A	100 a	33 b	100 a	100 a	100 a
3 Anthem ATZ	32 oz/a		PRE	A	100 a	45 ab	100 a	100 a	100 a
3 Atrazine	0.5 qt/a		PRE	A					
4 Anthem ATZ	32 oz/a		PRE	A	100 a	49 ab	100 a	100 a	100 a
4 Atrazine	0.5 qt/a		V-3	B					
4 Roundup PowerMax	22 oz/a		V-3	B					
4 N-PAK AMS	1.5 qt/a		V-3	B					
5 Anthem	8 oz/a		PRE	A	100 a	64 ab	100 a	100 a	100 a
5 F9387	3 oz/a		V-3	B					
5 Roundup PowerMax	22 oz/a		V-3	B					
5 N-PAK AMS	1.5 qt/a		V-3	B					
6 Anthem ATZ	32 oz/a		PRE	A	100 a	68 ab	100 a	100 a	100 a
6 F9387	3 oz/a		V-3	B					
6 Roundup PowerMax	22 oz/a		V-3	B					
6 N-PAK AMS	1.5 qt/a		V-3	B					
7 Anthem ATZ	32 oz/a		PRE	A	100 a	61 ab	100 a	100 a	100 a
7 Sharpen	2 oz/a		PRE	A					
7 Roundup PowerMax	22 oz/a		V-3	B					
7 N-PAK AMS	1.5 qt/a		V-3	B					
8 Verdict	14 oz/a		PRE	A	99 a	81 a	100 a	100 a	100 a
8 Roundup PowerMax	22 oz/a		V-3	B					
8 N-PAK AMS	1.5 qt/a		V-3	B					
9 Bicep Lite II Magnum	1.9 qt/a		PRE	A	100 a	71 ab	100 a	99 a	100 a
9 Callisto	3 oz/a		V-3	B					
9 Roundup PowerMax	22 oz/a		V-3	B					
9 N-PAK AMS	1.5 qt/a		V-3	B					
10 Lumax EZ	2.5 qt/a		PRE	A	100 a	49 ab	100 a	100 a	100 a
10 Roundup PowerMax	22 oz/a		V-3	B					
10 N-PAK AMS	1.5 qt/a		V-3	B					

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	SETFA	AMBTR	AMBEL	CHEAL	ABUTH					
Pest Scientific Name	Setaria faberi	Ambrosia trifi>	Ambrosia artem>	Chenopodium al>	Abutilon theop>					
Pest Name	Giant foxtail	Giant ragweed	Common ragweed	Common lambsqu>	velvetleaf					
Crop Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Rating Date	Jun-20-2013	Jun-20-2013	Jun-20-2013	Jun-20-2013	Jun-20-2013					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	45 30	45 30	45 30	45 30	45 30					
Trt-Eval Interval	30 DA-B	30 DA-B	30 DA-B	30 DA-B	30 DA-B					
Plant-Eval Interval	45 DP-1	45 DP-1	45 DP-1	45 DP-1	45 DP-1					
Days After Emergence	34 DE-1	34 DE-1	34 DE-1	34 DE-1	34 DE-1					
ARM Action Codes										
Number of Decimals	0	0	0	0	0					
Trt Treatment	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	17	18	19	20	21
11 Anthem ATZ	32 oz/a		PRE	A		95 a	64 ab	100 a	100 a	100 a
11 Hornet	3 oz/a		PRE	A						
11 Roundup PowerMax	22 oz/a		V-3	B						
11 N-PAK AMS	1.5 qt/a		V-3	B						
12 Surestart	2 pt/a		PRE	A		91 a	59 ab	100 a	99 a	100 a
12 Roundup PowerMax	22 oz/a		V-3	B						
12 N-PAK AMS	1.5 qt/a		V-3	B						
LSD (P=.05)						8.5	23.4	0.0	1.5	0.0
Standard Deviation						5.9	16.2	0.0	1.0	0.0
CV						6.0	28.0	0.0	1.02	0.0
Bartlett's X2						6.723	13.129	0.0	0.007	0.0
P(Bartlett's X2)						0.081	0.285	.	0.933	.
Skewness						-3.5777*	-0.6269	.	-4.6009*	.
Kurtosis						12.7937*	-0.6118	.	20.3524*	.
Replicate F						0.661	3.987	0.000	0.559	0.000
Replicate Prob(F)						0.5818	0.0158	1.0000	0.6458	1.0000
Treatment F						1.230	2.633	0.000	1.122	0.000
Treatment Prob(F)						0.3072	0.0155	1.0000	0.3758	1.0000

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	AMARE	SETFA	AMBTR	AMBEL	CHEAL					
Pest Scientific Name	Amaranthus ret>	Setaria faberi	Ambrosia trifi>	Ambrosia artem>	Chenopodium al>					
Pest Name	Redroot pigweed	Giant foxtail	Giant ragweed	Common ragweed	Common lambsqu>					
Crop Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Rating Date	Jun-20-2013	Jul-17-2013	Jul-17-2013	Jul-17-2013	Jul-17-2013					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	45 30	72 57	72 57	72 57	72 57					
Trt-Eval Interval	30 DA-B	30 DA-B	30 DA-B	30 DA-B	30 DA-B					
Plant-Eval Interval	45 DP-1	72 DP-1	72 DP-1	72 DP-1	72 DP-1					
Days After Emergence	34 DE-1	61 DE-1	61 DE-1	61 DE-1	61 DE-1					
ARM Action Codes										
Number of Decimals	0	0	0	0	0					
Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Code	22	23	24	25	26
1	miss applied					100 a	100 a	57 a	100 a	100 a
2	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	48 a	100 a	100 a
3	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	58 a	100 a	100 a
3	Atrazine	0.5 qt/a		PRE	A					
4	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	75 a	100 a	100 a
4	Atrazine	0.5 qt/a		V-3	B					
4	Roundup PowerMax	22 oz/a		V-3	B					
4	N-PAK AMS	1.5 qt/a		V-3	B					
5	Anthem	8 oz/a		PRE	A	100 a	100 a	61 a	100 a	100 a
5	F9387	3 oz/a		V-3	B					
5	Roundup PowerMax	22 oz/a		V-3	B					
5	N-PAK AMS	1.5 qt/a		V-3	B					
6	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	74 a	100 a	100 a
6	F9387	3 oz/a		V-3	B					
6	Roundup PowerMax	22 oz/a		V-3	B					
6	N-PAK AMS	1.5 qt/a		V-3	B					
7	Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	69 a	100 a	100 a
7	Sharpen	2 oz/a		PRE	A					
7	Roundup PowerMax	22 oz/a		V-3	B					
7	N-PAK AMS	1.5 qt/a		V-3	B					
8	Verdict	14 oz/a		PRE	A	100 a	100 a	100 a	100 a	100 a
8	Roundup PowerMax	22 oz/a		V-3	B					
8	N-PAK AMS	1.5 qt/a		V-3	B					
9	Bicep Lite II Magnum	1.9 qt/a		PRE	A	100 a	100 a	98 a	100 a	100 a
9	Callisto	3 oz/a		V-3	B					
9	Roundup PowerMax	22 oz/a		V-3	B					
9	N-PAK AMS	1.5 qt/a		V-3	B					
10	Lumax EZ	2.5 qt/a		PRE	A	100 a	100 a	48 a	100 a	100 a
10	Roundup PowerMax	22 oz/a		V-3	B					
10	N-PAK AMS	1.5 qt/a		V-3	B					

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	AMARE	SETFA	AMBTR	AMBEL	CHEAL					
Pest Scientific Name	Amaranthus ret>	Setaria faberi	Ambrosia trifi>	Ambrosia artem>	Chenopodium al>					
Pest Name	Redroot pigweed	Giant foxtail	Giant ragweed	Common ragweed	Common lambsqu>					
Crop Code										
BBCH Scale										
Crop Scientific Name										
Crop Name										
Rating Date	Jun-20-2013	Jul-17-2013	Jul-17-2013	Jul-17-2013	Jul-17-2013					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Days After First/Last Applic.	45 30	72 57	72 57	72 57	72 57					
Trt-Eval Interval	30 DA-B	30 DA-B	30 DA-B	30 DA-B	30 DA-B					
Plant-Eval Interval	45 DP-1	72 DP-1	72 DP-1	72 DP-1	72 DP-1					
Days After Emergence	34 DE-1	61 DE-1	61 DE-1	61 DE-1	61 DE-1					
ARM Action Codes										
Number of Decimals	0	0	0	0	0					
Trt Treatment No. Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	22	23	24	25	26
11 Anthem ATZ	32 oz/a		PRE	A		100 a	100 a	75 a	100 a	100 a
11 Hornet	3 oz/a		PRE	A						
11 Roundup PowerMax	22 oz/a		V-3	B						
11 N-PAK AMS	1.5 qt/a		V-3	B						
12 Surestart	2 pt/a		PRE	A		100 a	100 a	55 a	100 a	100 a
12 Roundup PowerMax	22 oz/a		V-3	B						
12 N-PAK AMS	1.5 qt/a		V-3	B						
LSD (P=.05)						0.0	0.0	42.2	0.0	0.2
Standard Deviation						0.0	0.0	29.2	0.0	0.1
CV						0.0	0.0	42.92	0.0	0.14
Bartlett's X2						0.0	0.0	13.08	0.0	0.0
P(Bartlett's X2)						.	.	0.219	.	.
Skewness						.	.	-0.249	.	-6.9282*
Kurtosis						.	.	-1.743*	.	48.0*
Replicate F						0.000	0.000	1.255	0.000	1.000
Replicate Prob(F)						1.0000	1.0000	0.3058	1.0000	0.4051
Treatment F						0.000	0.000	1.427	0.000	1.000
Treatment Prob(F)						1.0000	1.0000	0.2073	1.0000	0.4671

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Trt No.	Treatment Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	27	28	29
	1 miss applied						100 a	100 a	99 a
	2 Anthem ATZ	32 oz/a		PRE	A		100 a	100 a	100 a
	3 Anthem ATZ	32 oz/a		PRE	A		100 a	100 a	99 a
	3 Atrazine	0.5 qt/a		PRE	A				
	4 Anthem ATZ	32 oz/a		PRE	A		100 a	100 a	91 a
	4 Atrazine	0.5 qt/a		V-3	B				
	4 Roundup PowerMax	22 oz/a		V-3	B				
	4 N-PAK AMS	1.5 qt/a		V-3	B				
	5 Anthem	8 oz/a		PRE	A		100 a	100 a	100 a
	5 F9387	3 oz/a		V-3	B				
	5 Roundup PowerMax	22 oz/a		V-3	B				
	5 N-PAK AMS	1.5 qt/a		V-3	B				
	6 Anthem ATZ	32 oz/a		PRE	A		100 a	100 a	100 a
	6 F9387	3 oz/a		V-3	B				
	6 Roundup PowerMax	22 oz/a		V-3	B				
	6 N-PAK AMS	1.5 qt/a		V-3	B				
	7 Anthem ATZ	32 oz/a		PRE	A		100 a	100 a	100 a
	7 Sharpen	2 oz/a		PRE	A				
	7 Roundup PowerMax	22 oz/a		V-3	B				
	7 N-PAK AMS	1.5 qt/a		V-3	B				
	8 Verdict	14 oz/a		PRE	A		100 a	100 a	100 a
	8 Roundup PowerMax	22 oz/a		V-3	B				
	8 N-PAK AMS	1.5 qt/a		V-3	B				
	9 Bicep Lite II Magnum	1.9 qt/a		PRE	A		100 a	100 a	100 a
	9 Callisto	3 oz/a		V-3	B				
	9 Roundup PowerMax	22 oz/a		V-3	B				
	9 N-PAK AMS	1.5 qt/a		V-3	B				
	10 Lumax EZ	2.5 qt/a		PRE	A		100 a	100 a	100 a
	10 Roundup PowerMax	22 oz/a		V-3	B				
	10 N-PAK AMS	1.5 qt/a		V-3	B				

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Pest Type	W Weed	W Weed	W Weed				
Pest Code	ABUTH	AMARE	IPOHE				
Pest Scientific Name	Abutilon theop>	Amaranthus ret>	Ipomoea heder>				
Pest Name	velvetleaf	Redroot pigweed	Ivyleaf mornin>				
Crop Code							
BBCH Scale							
Crop Scientific Name							
Crop Name							
Rating Date	Jul-17-2013	Jul-17-2013	Jul-17-2013				
Rating Type	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%				
Number of Subsamples	1	1	1				
Days After First/Last Applic.	72 57	72 57	72 57				
Trt-Eval Interval	30 DA-B	30 DA-B	30 DA-B				
Plant-Eval Interval	72 DP-1	72 DP-1	72 DP-1				
Days After Emergence	61 DE-1	61 DE-1	61 DE-1				
ARM Action Codes							
Number of Decimals	0	0	0				
Trt Treatment No. Name	Other Rate	Other Rate	Growth Unit Stage	Appl Code	27	28	29
11 Anthem ATZ	32 oz/a		PRE	A	100 a	100 a	96 a
11 Hornet	3 oz/a		PRE	A			
11 Roundup PowerMax	22 oz/a		V-3	B			
11 N-PAK AMS	1.5 qt/a		V-3	B			
12 Surestart	2 pt/a		PRE	A	100 a	100 a	100 a
12 Roundup PowerMax	22 oz/a		V-3	B			
12 N-PAK AMS	1.5 qt/a		V-3	B			
LSD (P=.05)					0.2	0.0	6.2
Standard Deviation					0.1	0.0	4.3
CV					0.14	0.0	4.38
Bartlett's X2					0.0	0.0	46.334
P(Bartlett's X2)					.	.	0.001*
Skewness					-6.9282*	.	-5.35*
Kurtosis					48.0*	.	31.8985*
Replicate F					1.000	0.000	1.702
Replicate Prob(F)					0.4051	1.0000	0.1857
Treatment F					1.000	0.000	1.493
Treatment Prob(F)					0.4671	1.0000	0.1812

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Weed Control in Corn With Anthem and Anthem ATZ

Trial ID: 13PRPOC3
Protocol ID: 13PRP0C3
Project ID: PYRX.COR.13.JPR.01

Location: Trial Year:
Investigator: Dr. Mark M. Loux
Study Director:
Sponsor Contact: Joe Reed, FMC

Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, = US
AMBTR, Ambrosia trifida, = US
AMBEL, Ambrosia artemisiifolia, = US
CHEAL, Chenopodium album, = US
ABUTH, Abutilon theophrasti, = US
AMARE, Amaranthus retroflexus, = US
IPOHE, Ipomoea hederacea, = US

Crop Code

ZEAMX, BCOR, Zea mays, = US

Rating Type

PHYGEN = phytotoxicity - general / injury
PHYNEC = phytotoxicity - necrosis /burn
PHYLMA = phytotoxicity - leaf malformation
CONTRO = control / burndown or knockdown

Rating Unit

% = percent

Plant-Eval Interval

15 DP-1 = 1 ZEAMX May-6-2013
22 DP-1 = 1 ZEAMX May-6-2013
28 DP-1 = 1 ZEAMX May-6-2013
45 DP-1 = 1 ZEAMX May-6-2013
72 DP-1 = 1 ZEAMX May-6-2013

ARM Action Codes

AA = Automatic arcsine square root % transformation