

2011 POST design of Anthem Atrazine PREMIX F9316 versus Standards in Corn

Trial ID: 11 FMC CRN 7A3 AnthemPOST Protocol ID: 11 FMC CRN 7A3 AnthemPOST
Location: Concord, NE
Project ID: QNA891-2011-ZEAMX-073A Investigator: Stevan Knezevic

General Trial Information

Investigator: Stevan Knezevic

Trial Location

City: Concord
State/Prov.: NE
Postal Code: 68728
Country: USA

Personnel

Investigator: Stevan Knezevic

Crop Description

Crop 1: ZEAMX Zea mays Corn
Variety: Pioneer 35F40 Description: RRLL
BBCH Scale: BCOR Planting Date: 06-05-2011
Planting Method: SEEDED seeded Rate, Unit: 25677 s/a
Depth, Unit: 2 in
Row Spacing, Unit: 30 in
Harvest Date: 10-21-2011 Harvest Equipment: Almaco SP40
Harvested Width, Unit: 5 ft Harvested Length, Unit: 22.5 ft
% Standard Moisture: 15.5

Pest Description

Pest 1 Type: W Code: SETVI Setaria viridis
Common Name: Green foxtail
Pest 2 Type: W Code: AMATU Amaranthus tuberculatus
Common Name: Tall waterhemp

Site and Design

Plot Width, Unit: 6.667 FT Site Type: FIELD field
Plot Length, Unit: 25 FT
Plot Area, Unit: 166.6667 FT2 Tillage Type: NOTILL no-till
Replications: 4 Study Design: RACOB� Randomized Complete Block (RCB)

Maintenance

No.	Date	Maintenance Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix
1.	05-18-2011	glyphosate (Durango)	5.4	lb/gal	SL	44	oz/A	yes
2.	06-05-2011	Roundup PowerMAX	5.5	lb/gal	SL	29	oz/A	yes
3.	06-05-2011	AMS	21.5	%	SG	2.5	lb/A	yes

Comment: On 5-18-11 glyphosate mixed in 20 gal/A 32% Nitrogen

Soil Description

% Sand: 10 % OM: 2.8 Texture: SICL silty clay loam
% Silt: 58 pH: 6.3
% Clay: 32 CEC: 19.7 Fert. Level: E excellent

Application Description

	A
Application Date:	07-02-2011
Time of Day:	2:10 pm
Application Method:	spray
Application Timing:	POST
Application Placement:	foliar
Applied By:	js
Air Temperature, Unit:	82 F
% Relative Humidity:	46
Wind Velocity, Unit:	3 mph
Wind Direction:	E
Dew Presence (Y/N):	N no
Soil Temperature, Unit:	80 F
Soil Moisture:	adequate
% Cloud Cover:	90

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale:	ZEAMX BCOR
Stage Scale Used:	BBCH
Stage Majority, Percent:	V5 80
Stage Minimum, Percent:	V4 15
Stage Maximum, Percent:	V6 5
Height, Unit:	10 in
Height Minimum, Maximum:	8 12

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale:	SETVI W
Height, Unit:	2 in
Height Minimum, Maximum:	1 3
Density, Unit:	0.5 m2
Pest 2 Code, Type, Scale:	AMATU W
Height, Unit:	2.5 in
Height Minimum, Maximum:	1 4
Density, Unit:	1 m2

Application Equipment

	A
Appl. Equipment:	Backpack
Operating Pressure, Unit:	30 PSI
Nozzle Type:	AIXR
Nozzle Size:	110015
Nozzle Spacing, Unit:	20 in
Boom Length, Unit:	6.67 ft
Boom Height, Unit:	15 in
Ground Speed, Unit:	2.7 mph
Carrier:	WATER
Spray Volume, Unit:	15 gal/ac
Mix Size, Unit:	.9 liters
Propellant:	COMCO2

Northeast Research & Extension Center

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 Location: Concord, NE
 Project ID: QNA891-2011-ZEAMX-073A Investigator: Stevan Knezevic

Description		Corn, field	Corn, field	Corn, field	Green foxtail	Green foxtail									
Rating Date		07-09-2011	07-18-2011	07-30-2011	07-09-2011	07-18-2011									
Rating Type		Injury	Injury	Injury	Control	Control									
Rating Unit		Percent	Percent	Percent	Percent	Percent									
Days After First/Last Applic.		7 7	16 16	28 28	7 7	16 16									
Trt-Eval Interval		7 DA-A	16 DA-A	28 DA-A	7 DA-A	16 DA-A									
Plant-Eval Interval		34 DP-1	43 DP-1	55 DP-1	34 DP-1	43 DP-1									
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Other Rate	Other Rate	Growth Unit	Stage	Appl Code					
1	Anthem	2.15 lb/gal	SE		4 oz/a	75 g ai/ha			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	AATREX	4 lb/gal	SC		16.5 oz/a	.516 lb ai/a			POST V3 A						
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a	0.95 lb ai/a			POST V3 A						
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
2	Anthem	2.15 lb/gal	SE		5.5 oz/a	104 g ai/ha			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	AATREX	4 lb/gal	SC		22.7 oz/a	0.71 lb ai/a			POST V3 A						
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a	0.95 lb ai/a			POST V3 A						
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
3	Anthem	2.15 lb/gal	SE		7 oz/a	132 g ai/ha			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	AATREX	4 lb/gal	SC		28.8 oz/a	0.9 lb ai/a			POST V3 A						
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a	0.95 lb ai/a			POST V3 A						
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
4	Anthem	2.15 lb/gal	SE		6 oz/a	113 g ai/ha			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a	0.95 lb ai/a			POST V3 A						
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
5	Anthem	2.15 lb/gal	SE		8 oz/a	150 g ai/ha			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a	0.95 lb ai/a			POST V3 A						
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
6	F9316-2	4.5 lb/gal	SE		16.56 oz/a	0.58 lb ai/a			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a	0.95 lb ai/a			POST V3 A						
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
7	F9316-2	4.5 lb/gal	SE		22.77 oz/a	0.8 lb ai/a			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a	0.95 lb ai/a			POST V3 A						
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
8	F9316-2	4.5 lb/gal	SE		28.98 oz/a	1.02 lb ai/a			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a	0.95 lb ai/a			POST V3 A						
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
9	Bicep Lite II Magnum	6 lb/gal	F		0.9 qt/a	1.35 lb ai/a			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a	0.95 lb ai/a			POST V3 A						
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
10	Halex GT	4.84 lb/gal	EC		3.6 qt/a	4.36 lb ai/a			POST V3 A		0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	AMS	21.5 %	SG		17 lb/100 gal				POST V3 A						
11	Nontreated										0.0 a	0.0 a	0.0 a	0.0 b	0.0 b

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Description										Corn, field	Corn, field	Corn, field	Green foxtail	Green foxtail	
Rating Date										07-09-2011	07-18-2011	07-30-2011	07-09-2011	07-18-2011	
Rating Type										Injury	Injury	Injury	Control	Control	
Rating Unit										Percent	Percent	Percent	Percent	Percent	
Days After First/Last Applic.										7 7	16 16	28 28	7 7	16 16	
Trt-Eval Interval										7 DA-A	16 DA-A	28 DA-A	7 DA-A	16 DA-A	
Plant-Eval Interval										34 DP-1	43 DP-1	55 DP-1	34 DP-1	43 DP-1	
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate Unit	Other Rate	Other Rate Unit	Growth Unit	Stage	Appl Code					
12	Anthem	2.15 lb/gal	SE		4 oz/a		75 g ai/ha		POST V3	A	0.0 a	0.0 a	0.0 a	99.0 a	99.0 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a		POST V3	A					
	AMS	21.5 %	SG		17 lb/100 gal				POST V3	A					
LSD (P=.05)											0.00	0.00	0.00	0.00	0.00
Standard Deviation											0.00	0.00	0.00	0.00	0.00
CV											0.0	0.0	0.0	0.0	0.0
Grand Mean											0.0	0.0	0.0	90.75	90.75
Replicate F											0.000	0.000	0.000	0.000	0.000
Replicate Prob(F)											1.0000	1.0000	1.0000	1.0000	1.0000
Treatment F											0.000	0.000	0.000	0.000	0.000
Treatment Prob(F)											1.0000	1.0000	1.0000	1.0000	1.0000

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Description		Green foxtail	Waterhemp	Waterhemp	Waterhemp	Corn, field									
Rating Date		07-30-2011	07-09-2011	07-18-2011	07-30-2011	10-21-2011									
Rating Type		Control	Control	Control	Control	Moisture									
Rating Unit		Percent	Percent	Percent	Percent	%									
Days After First/Last Applic.		28 28	7 7	16 16	28 28	111 111	111 111								
Trt-Eval Interval		28 DA-A	7 DA-A	16 DA-A	28 DA-A	111 DA-A	111 DA-A								
Plant-Eval Interval		55 DP-1	34 DP-1	43 DP-1	55 DP-1	138 DP-1	138 DP-1								
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Other Rate	Other Rate	Growth Unit	Stage	Appl Code					
1	Anthem	2.15 lb/gal	SE	4 oz/a	75 g ai/ha			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	15.238 a
	AATREX	4 lb/gal	SC	16.5 oz/a	.516 lb ai/a			POST V3	A						
	Roundup PowerMAX	5.5 lb/gal	SL	22 oz/a	0.95 lb ai/a			POST V3	A						
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
2	Anthem	2.15 lb/gal	SE	5.5 oz/a	104 g ai/ha			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	15.930 a
	AATREX	4 lb/gal	SC	22.7 oz/a	0.71 lb ai/a			POST V3	A						
	Roundup PowerMAX	5.5 lb/gal	SL	22 oz/a	0.95 lb ai/a			POST V3	A						
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
3	Anthem	2.15 lb/gal	SE	7 oz/a	132 g ai/ha			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	15.670 a
	AATREX	4 lb/gal	SC	28.8 oz/a	0.9 lb ai/a			POST V3	A						
	Roundup PowerMAX	5.5 lb/gal	SL	22 oz/a	0.95 lb ai/a			POST V3	A						
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
4	Anthem	2.15 lb/gal	SE	6 oz/a	113 g ai/ha			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	16.340 a
	Roundup PowerMAX	5.5 lb/gal	SL	22 oz/a	0.95 lb ai/a			POST V3	A						
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
5	Anthem	2.15 lb/gal	SE	8 oz/a	150 g ai/ha			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	15.220 a
	Roundup PowerMAX	5.5 lb/gal	SL	22 oz/a	0.95 lb ai/a			POST V3	A						
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
6	F9316-2	4.5 lb/gal	SE	16.56 oz/a	0.58 lb ai/a			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	15.083 a
	Roundup PowerMAX	5.5 lb/gal	SL	22 oz/a	0.95 lb ai/a			POST V3	A						
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
7	F9316-2	4.5 lb/gal	SE	22.77 oz/a	0.8 lb ai/a			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	15.053 a
	Roundup PowerMAX	5.5 lb/gal	SL	22 oz/a	0.95 lb ai/a			POST V3	A						
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
8	F9316-2	4.5 lb/gal	SE	28.98 oz/a	1.02 lb ai/a			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	16.525 a
	Roundup PowerMAX	5.5 lb/gal	SL	22 oz/a	0.95 lb ai/a			POST V3	A						
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
9	Bicep Lite II Magnum	6 lb/gal	F	0.9 qt/a	1.35 lb ai/a			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	15.320 a
	Roundup PowerMAX	5.5 lb/gal	SL	22 oz/a	0.95 lb ai/a			POST V3	A						
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
10	Halex GT	4.84 lb/gal	EC	3.6 qt/a	4.36 lb ai/a			POST V3	A		99.0 a	99.0 a	99.0 a	99.0 a	15.580 a
	AMS	21.5 %	SG	17 lb/100 gal				POST V3	A						
11	Nontreated										0.0 b	0.0 b	0.0 b	0.0 b	16.113 a

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Description						Green foxtail	Waterhemp	Waterhemp	Waterhemp	Corn, field
Rating Date						07-30-2011	07-09-2011	07-18-2011	07-30-2011	10-21-2011
Rating Type						Control	Control	Control	Control	Moisture
Rating Unit						Percent	Percent	Percent	Percent	%
Days After First/Last Applic.						28 28	7 7	16 16	28 28	111 111
Trt-Eval Interval						28 DA-A	7 DA-A	16 DA-A	28 DA-A	111 DA-A
Plant-Eval Interval						55 DP-1	34 DP-1	43 DP-1	55 DP-1	138 DP-1
Trt Treatment	Form	Form	Form	Rate	Other	Other	Growth	Appl		
No. Name	Conc	Unit	Type	Rate	Unit	Rate	Rate	Unit	Stage	Code
12 Anthem	2.15 lb/gal	SE		4 oz/a		75 g ai/ha		POST V3	A	
Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a		POST V3	A	
AMS	21.5 %	SG		17 lb/100 gal				POST V3	A	
LSD (P=.05)						0.00	0.00	0.00	0.00	1.4741
Standard Deviation						0.00	0.00	0.00	0.00	1.0209
CV						0.0	0.0	0.0	0.0	6.5
Grand Mean						90.75	90.75	90.75	90.75	15.7
Replicate F						0.000	0.000	0.000	0.000	0.126
Replicate Prob(F)						1.0000	1.0000	1.0000	1.0000	0.9441
Treatment F						0.000	0.000	0.000	0.000	1.091
Treatment Prob(F)						1.0000	1.0000	1.0000	1.0000	0.3977

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Description										Corn, field			
Rating Date										10-21-2011	10-21-2011		
Rating Type										Test WT	Yield@15.5%		
Rating Unit										lb/bu	bu/A		
Days After First/Last Applic.										111 111	111 111		
Trt-Eval Interval										111 DA-A	111 DA-A		
Plant-Eval Interval										138 DP-1	138 DP-1		
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code		
1	Anthem	2.15 lb/gal	SE		4 oz/a		75 g ai/ha			POST V3 A		55.933 a	167.180 a
	AATREX	4 lb/gal	SC		16.5 oz/a		.516 lb ai/a			POST V3 A			
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
2	Anthem	2.15 lb/gal	SE		5.5 oz/a		104 g ai/ha			POST V3 A		56.830 a	169.728 a
	AATREX	4 lb/gal	SC		22.7 oz/a		0.71 lb ai/a			POST V3 A			
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
3	Anthem	2.15 lb/gal	SE		7 oz/a		132 g ai/ha			POST V3 A		56.613 a	171.553 a
	AATREX	4 lb/gal	SC		28.8 oz/a		0.9 lb ai/a			POST V3 A			
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
4	Anthem	2.15 lb/gal	SE		6 oz/a		113 g ai/ha			POST V3 A		56.095 a	168.995 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
5	Anthem	2.15 lb/gal	SE		8 oz/a		150 g ai/ha			POST V3 A		55.633 a	167.205 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
6	F9316-2	4.5 lb/gal	SE		16.56 oz/a		0.58 lb ai/a			POST V3 A		56.123 a	171.285 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
7	F9316-2	4.5 lb/gal	SE		22.77 oz/a		0.8 lb ai/a			POST V3 A		56.775 a	168.593 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
8	F9316-2	4.5 lb/gal	SE		28.98 oz/a		1.02 lb ai/a			POST V3 A		57.368 a	168.880 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
9	Bicep Lite II Magnum	6 lb/gal	F		0.9 qt/a		1.35 lb ai/a			POST V3 A		56.310 a	163.803 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
10	Halex GT	4.84 lb/gal	EC		3.6 qt/a		4.36 lb ai/a			POST V3 A		57.073 a	166.870 a
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
11	Nontreated											55.088 a	152.970 a

Means followed by same letter do not significantly differ (P=.05, Duncan's New MRT)
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

Description											Corn, field	Corn, field	
Rating Date											10-21-2011	10-21-2011	
Rating Type											Test WT	Yield@15.5%	
Rating Unit											lb/bu	bu/A	
Days After First/Last Applic.											111 111	111 111	
Trt-Eval Interval											111 DA-A	111 DA-A	
Plant-Eval Interval											138 DP-1	138 DP-1	
Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate Rate	Unit	Other Rate	Other Rate	Unit	Growth Stage	Appl Code		
12	Anthem	2.15 lb/gal	SE		4 oz/a		75 g ai/ha			POST V3 A		56.993 a	165.285 a
	Roundup PowerMAX	5.5 lb/gal	SL		22 oz/a		0.95 lb ai/a			POST V3 A			
	AMS	21.5 %	SG		17 lb/100 gal					POST V3 A			
LSD (P=.05)												1.6694	11.2500
Standard Deviation												1.1562	7.7913
CV												2.05	4.67
Grand Mean												56.4	166.86
Replicate F												0.253	5.079
Replicate Prob(F)												0.8586	0.0053
Treatment F												1.314	1.596
Treatment Prob(F)												0.2604	0.1458

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