

Ohio State University  
Horticulture and Crop Science

Anthem / Anthem ATZ Burndwon plus Residual Corn

Title No. 2:

Trial ID: 12NTC1 Protocol ID: 12NTC1  
 Location: Western Branch F-9 E Study Director: Anthony F. Dobbels  
 Project ID: 12NTC1 Investigator: Dr. Mark M. Loux  
 Sponsor Contact: Joe Reed, FMC

General Trial Information

Study Director: Anthony F. Dobbels Title: Research Specialist  
 Investigator: Dr. Mark M. Loux Title: Professor

Initiation Date: Apr-1-2012 Planned Completion Date: Oct-31-2012

Trial Location

City: South Charleston Latitude of LL Corner °: 39.85872 N  
 State/Prov.: Ohio Longitude of LL Corner °: 83.67143 W  
 Postal Code: 45368  
 Country: USA

Crop Description

Crop 1: ZEAMX Zea mays Corn  
 Variety: Seed Consultants SCS 11HQ38 Description: RR/LL  
 BBCH Scale: BCOR Planting Date: Apr-30-2012  
 Planting Method: SEEDED seeded Rate, Unit: 32097 S/A  
 Depth, Unit: 1.5 IN  
 Row Spacing, Unit: 30 IN  
 Seed Bed: MEDIUM medium Soil Temperature, Unit: 63 F  
 Soil Moisture: SLIWET slightly wet, moist Emergence Date: May-9-2012  
 Harvest Date: Oct-23-2012 Harvest Equipment: MASSEY 8 XP  
 Harvested Width, Unit: 5 FT Harvested Length, Unit: 30 FT  
 % Standard Moisture: 15.5 Moisture Meter: HARVEST MASTER  
 Weighing Equipment: HARVEST MASTER 401

Pest Description

Pest 1 Type: W Code: STEME *Stellaria media*  
 Common Name: Common chickweed  
 Pest 2 Type: W Code: LAMPU *Lamium purpureum*  
 Common Name: Purple deadnettel  
 Pest 3 Type: W Code: LAMAM *Lamium amplexicaule*  
 Common Name: Henbit  
 Pest 4 Type: W Code: CAPBP *Capsella bursa-pastoris*  
 Common Name: Shepherd's purse  
 Pest 5 Type: W Code: VERAG *Veronica agrestis*  
 Common Name: Field speedwell  
 Pest 6 Type: W Code: RANAB *Ranunculus abortivus*  
 Common Name: Smallflower buttercup  
 Pest 7 Type: W Code: ERICA *Conyza canadensis*  
 Common Name: Canada horseweed  
 Pest 8 Type: W Code: AMBTR *Ambrosia trifida*  
 Common Name: Giant ragweed  
 Pest 9 Type: W Code: AMBEL *Ambrosia artemisiifolia*  
 Common Name: Common ragweed

Site and Design

Plot Width, Unit: 6.67 FT Site Type: FIELD field  
 Plot Length, Unit: 30 FT Experimental Unit: 1 PLOT plot  
 Plot Area, Unit: 200.1 FT<sup>2</sup> Tillage Type: NOTILL no-till  
 Replications: 3 Study Design: RACOB L Randomized Complete Block (RCB)  
 Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: F-9 East  
 % OM: 2.8 Texture: SICL silty clay loam  
 pH: 6.4 Soil Name: Kokomo  
 CEC: 19.6 Fert. Level: G good  
 Soil Drainage: G good

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Application Description

A  
 Application Date: Apr-18-2012  
 Time of Day: 9:30 A.M.  
 Application Method: SPRAY  
 Application Timing: 14 EPP  
 Application Placement: BROFOL  
 Applied By: REEB  
 Air Temperature, Unit: 52 F  
 % Relative Humidity: 58  
 Wind Velocity, Unit: 8 MPH  
 Wind Direction: ENE  
 Dew Presence (Y/N): N no  
 Soil Temperature, Unit: 48 F  
 Soil Moisture: GOOD  
 % Cloud Cover: 2  
 Next Rain Occurred On: Apr-21-2012

Crop Stage At Each Application

A  
 Crop 1 Code, BBCH Scale: ZEAMX BCOR

Pest Stage At Each Application

A  
 Pest 1 Code, Type, Scale: STEME W  
 Stage Majority, Percent: 65 100  
 Diameter, Unit: 6 IN  
 Height, Unit: 0.5 IN  
 Height Minimum, Maximum: 0.5 0.5  
 Density, Unit: 8 m2  
 Pest 2 Code, Type, Scale: LAMPU W  
 Stage Majority, Percent: 19 100  
 Height, Unit: 3.5 IN  
 Height Minimum, Maximum: 3.5 3.5  
 Density, Unit: 2.66 m2  
 Pest 3 Code, Type, Scale: LAMAM W  
 Stage Majority, Percent: 19 100  
 Height, Unit: 3.5 IN  
 Height Minimum, Maximum: 3.5 3.5  
 Density, Unit: 0.25 m2  
 Pest 4 Code, Type, Scale: CAPBP W  
 Stage Majority, Percent: 69 100  
 Diameter, Unit: 5 IN  
 Height, Unit: 8 IN  
 Height Minimum, Maximum: 8 8  
 Density, Unit: 10.64 m2  
 Pest 5 Code, Type, Scale: VERAG W  
 Stage Majority, Percent: 65 100  
 Diameter, Unit: 4 IN  
 Height, Unit: 0.5 IN  
 Height Minimum, Maximum: 0.5 0.5  
 Density, Unit: 0.25 m2  
 Pest 6 Code, Type, Scale: RANAB W  
 Stage Majority, Percent: 65 100  
 Height, Unit: 6 IN  
 Height Minimum, Maximum: 6 6  
 Density, Unit: 0.25 m2  
 Pest 7 Code, Type, Scale: ERICA W  
 Stage Majority, Percent: 19 100  
 Diameter, Unit: 3 IN  
 Height, Unit: 1 IN  
 Height Minimum, Maximum: 1 1  
 Density, Unit: 15.96 m2  
 Pest 8 Code, Type, Scale: AMBTR W  
 Stage Majority, Percent: 14 100  
 Diameter, Unit: 4 IN  
 Height, Unit: 0.5 IN  
 Height Minimum, Maximum: 0.5 0.5  
 Density, Unit: 1.33 m2  
 Pest 9 Code, Type, Scale: AMBEL W  
 Stage Majority, Percent: 14 100  
 Diameter, Unit: 2 IN  
 Height, Unit: 0.5 IN  
 Height Minimum, Maximum: 0.5 0.5  
 Density, Unit: 0.25 m2



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Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	20	21	22
1	UNTREATED					36.3 d	19.1 abc	180.2 d
2	ROUNDUP POWERMAX	32 fl oz/a	32 fl oz/a		A	43.8 bcd	20.1 a	214.7 bcd
	2 2,4-D LV ESTER	16 fl oz/a	16 fl oz/a		A			
	2 N-PAK AMS	2.5 % v/v	2.5 % v/v		A			
3	ANTHEM	8 fl oz/a	8 fl oz/a		A	46.2 abc	19.8 ab	227.5 abc
	3 ROUNDUP POWERMAX	32 fl oz/a	32 fl oz/a		A			
	3 2,4-D LV ESTER	16 fl oz/a	16 fl oz/a		A			
	3 N-PAK AMS	2.5 % v/v	2.5 % v/v		A			
4	ANTHEM ATZ	32 fl oz/a	32 fl oz/a		A	49.8 ab	19.7 ab	245.3 abc
	4 2,4-D LV ESTER	16 fl oz/a	16 fl oz/a		A			
	4 N-PAK AMS	2.5 % v/v	2.5 % v/v		A			
5	ANTHEM ATZ	32 fl oz/a	32 fl oz/a		A	47.0 abc	17.7 c	237.2 abc
	5 ROUNDUP POWERMAX	32 fl oz/a	32 fl oz/a		A			
	5 2,4-D LV ESTER	16 fl oz/a	16 fl oz/a		A			
	5 N-PAK AMS	2.5 % v/v	2.5 % v/v		A			
6	ANTHEM	8 fl oz/a	8 fl oz/a		A	42.0 bcd	19.6 ab	207.3 bcd
	6 SHARPEN	2 fl oz/a	2 fl oz/a		A			
	6 ROUNDUP POWERMAX	32 fl oz/a	32 fl oz/a		A			
	6 MSO	8 fl oz/a	8 fl oz/a		A			
	6 N-PAK AMS	2.5 % v/v	2.5 % v/v		A			
7	ANTHEM ATZ	32 fl oz/a	32 fl oz/a		A	49.2 ab	18.5 bc	245.9 ab
	7 SHARPEN	2 fl oz/a	2 fl oz/a		A			
	7 ROUNDUP POWERMAX	32 fl oz/a	32 fl oz/a		A			
	7 2,4-D LV ESTER	16 fl oz/a	16 fl oz/a		A			
	7 MSO	8 fl oz/a	8 fl oz/a		A			
	7 N-PAK AMS	2.5 % v/v	2.5 % v/v		A			
8	VERDICT	14 fl oz/a	14 fl oz/a		A	42.1 bcd	19.8 ab	207.6 bcd
	8 ROUNDUP POWERMAX	32 fl oz/a	32 fl oz/a		A			
	8 MSO	8 fl oz/a	8 fl oz/a		A			
	8 N-PAK AMS	2.5 % v/v	2.5 % v/v		A			
9	ANTHEM	8 fl oz/a	8 fl oz/a		A	45.3 abc	19.8 ab	222.7 abc
	9 GRAMOXONE SL	32 fl oz/a	32 fl oz/a		A			
	9 COC	1 % v/v	1 % v/v		A			
	9 N-PAK AMS	2.5 % v/v	2.5 % v/v		A			
10	ANTHEM ATZ	32 fl oz/a	32 fl oz/a		A	48.7 abc	18.4 bc	243.8 abc

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 Type									
Pest Code									
Pest Scientific Name									
Pest Name									
Crop Code									
BBCH Scale									
Crop Scientific Name									
Crop Name									
Rating Date									
Rating Type									
Rating Unit									
Number of Subsamples									
Days After First/Last Applic.									
Trt-Eval Interval									
Plant-Eval Interval									
Days After Emergence									
ARM Action Codes									
Number of Decimals									

Trt	Treatment	Rate	Other	Other	Appl			
No.	Name	Rate Unit	Rate	Rate Unit	Code	20	21	22
10	GRAMOXONE SL	32 fl oz/a	32 fl oz/a	A				
10	COC	1 % v/v	1 % v/v	A				
10	N-PAK AMS	2.5 % v/v	2.5 % v/v	A				
11	GRAMOXONE SL	32 fl oz/a	32 fl oz/a	A		41.3 cd	18.4 bc	206.7 cd
11	AATREX	16 oz/a	16 oz/a	A				
11	COC	1 % v/v	1 % v/v	A				
11	N-PAK AMS	2.5 % v/v	2.5 % v/v	A				
12	Lexar	3 qt/a	3 qt/a	A		52.2 a	18.4 bc	261.6 a
12	COC	1 % v/v	1 % v/v	A				
12	N-PAK AMS	2.5 % v/v	2.5 % v/v	A				
	LSD (P=.05)					7.84	1.48	38.89
	Standard Deviation					4.63	0.88	22.96
	CV					10.22	4.58	10.2

Crop Code  
ZEAMX, BCOR, Zea mays, = US

Rating Type  
YIELD = yield  
MOICON = moisture content

Rating Unit  
% = percent  
BU = bushel

Plant-Eval Interval  
176 DP-1 = 1 ZEAMX Apr-30-2012

ARM Action Codes  
TY1 = 5.185714\*[20]\*(100-[21])/84.5