

# The Ohio State University

2014/CORN/ANTHEM/ANTHEM ATZ/PRE-POST /EAST

Trial ID: 14EPOC1      Location: Western Branch      Trial Year: 2014  
 Protocol ID: 14EPOC1      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director: Anthony Dobbels  
                  Sponsor Contact: Joe Reed, FMC

### General Trial Information

**Study Director:** Anthony Dobbels  
**Investigator:** Dr. Mark M. Loux

### Trial Location

**City:** South Charleston      **Country:** USA      United States  
**State/Prov.:** Ohio  
**Postal Code:** 45368      **Climate Zone:** US Warm Continental  
**Latitude of LL Corner °:** 39.86022 N  
**Longitude of LL Corner °:** 83.67097 W

### Contacts

**Study Director:** Anthony Dobbels  
**Investigator:** Dr. Mark M. Loux

### Crop Description

**Crop 1:** ZEAMX      Zea mays  
**Variety:** Dekalb DKC 60-67 RIB  
**Description:** RR/LL

**Planting Date:** Apr-26-2014  
**Planting Method:** PLANTD planted  
**Planting Equipment:** FPP      Finger Pickup Planter  
**Emergence Date:** May-12-2014  
**Harvest Date:** Sep-30-2014  
**Harvested Width, Unit:** 5      FT  
**Harvested Length, Unit:** 40      FT  
**Harvest Equipment:** Massey Ferguson 8 XP  
**% Standard Moisture:** 15.5  
**Moisture Meter:** Harvest Master  
**Weighing Equipment:** Harvest Master

**Planting Rate, Unit:** 32097      S/A  
**Depth, Unit:** 1.75      IN  
**Row Spacing, Unit:** 30      IN

**Soil Temperature, Unit:** 56      F  
**Soil Moisture:** NORMAL normal, adequate  
**Seed Bed:** MEDIUM medium

### Pest Description

- Pest 1 Type:** W      **Code:** SETFA      *Setaria faberi*  
**Common Name:** Giant foxtail
- Pest 2 Type:** W      **Code:** AMBTR      *Ambrosia trifida*  
**Common Name:** Giant ragweed
- Pest 3 Type:** W      **Code:** CHEAL      *Chenopodium album*  
**Common Name:** Common lambsquarters
- Pest 4 Type:** W      **Code:** AMARE      *Amaranthus retroflexus*  
**Common Name:** Redroot pigweed
- Pest 5 Type:** W      **Code:** POLPY      *Persicaria pensylvanica*  
**Common Name:** Pennsylvania smartweed

### Site and Design

**Treated Plot Width:** 10 FT  
**Treated Plot Length:** 40 FT  
**Treated Plot Area:** 400 FT<sup>2</sup>      **Treatments:** 14  
**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      2013

### Soil Description

**Description Name:** F-7 East  
**% OM:** 2      **Texture:** SIC silty clay  
**pH:** 6.9      **Soil Name:** Crosby  
**CEC:** 14      **Fert. Level:** G good  
**Soil Drainage:** G good

# The Ohio State University

## 2014/CORN/ANTHEM/ANTHEM ATZ/PRE-POST /EAST

Trial ID: 14EPOC1      Location: Western Branch      Trial Year: 2014  
 Protocol ID: 14EPOC1      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director: Anthony Dobbels  
 Sponsor Contact: Joe Reed, FMC

### Application Description

	A	B
Application Date:	Apr-26-2014	May-27-2014
Appl. Start Time:	6:00 PM	8:50 AM
Appl. Stop Time:	6:30 PM	9:20 AM
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	EPOST
Application Placement:	BROSOI	BROFOL
Applied By:	Ackley	Reeb
Air Temperature, Unit:	74 F	75.7 F
% Relative Humidity:	47	72.2
Wind Velocity, Unit:	7 MPH	5.7 MPH
Wind Direction:	N	W
Dew Presence (Y/N):	N no	Y yes
Soil Temperature, Unit:	62 F	68 F
Soil Moisture:	DRY	DRY
% Cloud Cover:	5	25
Next Moisture Occurred On:	Apr-28-2014	Jun-2-2014
Time to Next Moisture, Unit:	1.5 DAY	6 DAY

### Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:		BBCH
Stage Majority, Percent:		13 100
Height, Unit:		3 IN
Height Minimum, Maximum:		3 4

### Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:		16 100
Height, Unit:		5.5 IN
Height Minimum, Maximum:		4 7
Density, Unit:		500 M2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:		14 100
Height, Unit:		4 IN
Height Minimum, Maximum:		3 5
Density, Unit:		18.25 M2
Pest 3 Code, Type, Scale:	CHEAL W	CHEAL W
Stage Majority, Percent:		12 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 2
Density, Unit:		12.25 M2
Pest 4 Code, Type, Scale:	AMARE W	AMARE W
Stage Majority, Percent:		12 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 2
Density, Unit:		13 M2
Pest 5 Code, Type, Scale:	POLPY W	POLPY W
Stage Majority, Percent:		12 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 2
Density, Unit:		23.25 M2

### Application Equipment

	A	B
Appl. Equipment:	6 FOOT BOOM	6 FOOT BOOM
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:	6.67 FT	6.67 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	1 Liters
Propellant:	CO2	CO2

# The Ohio State University

## 2014/CORN/ANTHEM/ANTHEM ATZ/PRE-POST /EAST

Trial ID: 14EPOC1      Location: Western Branch      Trial Year: 2014  
 Protocol ID: 14EPOC1      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director: Anthony Dobbels  
 Sponsor Contact: Joe Reed, FMC

Rating Type	WEIGHT	MOICON	YIELD	WEITES
Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Rating Date	Sep-30-2014	Sep-30-2014	Sep-30-2014	Sep-30-2014
Rating Unit	LBS	%	BU	LBS
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	157 126	157 126	157 126	157 126
Trt-Eval Interval				
Plant-Eval Interval	157 DP-1	157 DP-1	157 DP-1	157 DP-1
Days After Emergence	141 DE-1	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes		ET1	TY1	
Number of Decimals	1	1	1	1

  

Trt Treatment No. Name	Appl Code	Appl Description	30	31	32	33
1 ANTHEM	A	PRE	58.3 bcd	17.9	219.7 bcd	55.9 a
1 CADET	B	EPOST				
1 ROUNDUP POWERMAX	B	EPOST				
1 N PAK AMS	B	EPOST				
1 MUSTANG MAX	B	EPOST				
2 ANTHEM ATZ	A	PRE	57.9 cd	18.7 a	216.4 cd	55.6 a
2 CADET	B	EPOST				
2 ROUNDUP POWERMAX	B	EPOST				
2 N PAK AMS	B	EPOST				
2 MUSTANG MAX	B	EPOST				
3 ANTHEM	A	PRE	67.7 a	18.5 a	254.0 a	55.4 a
3 STANZA	B	EPOST				
3 CADET	B	EPOST				
3 ROUNDUP POWERMAX	B	EPOST				
3 N PAK AMS	B	EPOST				
3 MUSTANG MAX	B	EPOST				
4 ANTHEM ATZ	A	PRE	61.7 a-d	19.0 a	230.1 a-d	55.5 a
4 SOLSTICE	B	EPOST				
4 CADET	B	EPOST				
4 ROUNDUP POWERMAX	B	EPOST				
4 N PAK AMS	B	EPOST				
4 MUSTANG MAX	B	EPOST				
5 ANTHEM	B	EPOST	64.4 abc	19.1 a	239.7 abc	55.7 a
5 STANZA	B	EPOST				
5 ROUNDUP POWERMAX	B	EPOST				
5 N PAK AMS	B	EPOST				
5 MUSTANG MAX	B	EPOST				
6 ANTHEM ATZ	B	EPOST	63.9 a-d	19.8 a	236.1 a-d	55.3 a
6 STANZA	B	EPOST				
6 ROUNDUP POWERMAX	B	EPOST				
6 N PAK AMS	B	EPOST				
6 MUSTANG MAX	B	EPOST				

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.

# The Ohio State University

## 2014/CORN/ANTHEM/ANTHEM ATZ/PRE-POST /EAST

Trial ID: 14EPOC1      Location: Western Branch      Trial Year: 2014  
 Protocol ID: 14EPOC1      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director: Anthony Dobbels  
 Sponsor Contact: Joe Reed, FMC

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
Sep-30-2014	WEIGHT	LBS	1	157 126	157 DP-1	141 DE-1			1
Sep-30-2014	MOICON	%	1	157 126	157 DP-1	141 DE-1		ET1	1
Sep-30-2014	YIELD	BU	1	157 126	157 DP-1	141 DE-1		TY1	1
Sep-30-2014	WEITES	LBS	1	157 126	157 DP-1	141 DE-1			1

  

Trt No.	Treatment Name	Appl Code	Appl Description	30	31	32	33
7	ANTHEM ATZ	B	EPOST	67.1 a	19.6 a	248.4 a	55.5 a
7	SOLSTICE	B	EPOST				
7	ROUNDUP POWERMAX	B	EPOST				
7	N PAK AMS	B	EPOST				
7	MUSTANG MAX	B	EPOST				
8	SOLSTICE	B	EPOST	65.8 a	19.2 a	244.6 ab	56.0 a
8	AAtrex	B	EPOST				
8	ROUNDUP POWERMAX	B	EPOST				
8	N PAK AMS	B	EPOST				
8	MUSTANG MAX	B	EPOST				
9	SOLSTICE	B	EPOST	63.5 a-d	19.3 a	236.0 a-d	55.0 a
9	ROUNDUP POWERMAX	B	EPOST				
9	AMMONIUM SULFATE	B	EPOST				
9	MUSTANG MAX	B	EPOST				
10	ARMEZON	B	EPOST	61.9 a-d	19.6 a	229.0 a-d	55.3 a
10	ROUNDUP POWERMAX	B	EPOST				
10	N PAK AMS	B	EPOST				
10	MUSTANG MAX	B	EPOST				
11	REALM Q	B	EPOST	65.3 ab	19.7 a	241.1 abc	55.2 a
11	Rimsulfuron	B	EPOST				
11	Mesotrione	B	EPOST				
11	Isoxadifen-Ethyl	B	EPOST				
11	ROUNDUP POWERMAX	B	EPOST				
11	N PAK AMS	B	EPOST				
11	MUSTANG MAX	B	EPOST				
12	CORVUS	B	EPOST	64.3 a-d	19.8 a	237.4 a-d	55.7 a
12	AATREX	B	EPOST				
12	MUSTANG MAX	B	EPOST				
13	LUMAX EZ	B	EPOST	57.0 d	19.8 a	210.5 d	55.2 a
13	MUSTANG MAX	B	EPOST				

# The Ohio State University

## 2014/CORN/ANTHEM/ANTHEM ATZ/PRE-POST /EAST

Trial ID: 14EPOC1      Location: Western Branch      Trial Year: 2014  
 Protocol ID: 14EPOC1      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director: Anthony Dobbels  
 Sponsor Contact: Joe Reed, FMC

Pest Type				
Pest Code				
Pest Scientific Name				
Pest Name				
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn
Rating Date	Sep-30-2014	Sep-30-2014	Sep-30-2014	Sep-30-2014
Rating Type	WEIGHT	MOICON	YIELD	WEITES
Rating Unit	LBS	%	BU	LBS
Number of Subsamples	1	1	1	1
Days After First/Last Applic.	157 126	157 126	157 126	157 126
Trt-Eval Interval				
Plant-Eval Interval	157 DP-1	157 DP-1	157 DP-1	157 DP-1
Days After Emergence	141 DE-1	141 DE-1	141 DE-1	141 DE-1
ARM Action Codes		ET1	TY1	
Number of Decimals	1	1	1	1
Trt Treatment	Appl	Appl		
No. Name	Code Description			
14 Untreated Check	30	31	32	33
	44.6 e	19.9 a	164.9 e	55.5 a
LSD (P=.05)	7.29	1.31	27.49	1.96
Standard Deviation	5.10	0.92	19.23	1.37
CV	8.27	4.75	8.39	2.47
Grand Mean	61.67	19.37	229.12	55.46
Bartlett's X2	15.193	8.292	16.536	8.472
P(Bartlett's X2)	0.295	0.762	0.221	0.812
Skewness	-1.6424*	-0.1786	-1.7408*	0.0521
Kurtosis	2.403*	-0.6126	2.7825*	-0.7261
Replicate F	3.906	9.548	2.305	6.239
Replicate Prob(F)	0.0156	0.0001	0.0918	0.0015
Treatment F	5.401	0.985	5.304	0.174
Treatment Prob(F)	0.0001	0.4815	0.0001	0.9992

Crop Code  
 ZEAMX, BCOR, Zea mays, = US  
Rating Type  
 WEIGHT = weight  
 MOICON = moisture content  
 YIELD = yield  
 WEITES = weight - test  
Rating Unit  
 % = percent  
 BU = bushel  
Plant-Eval Interval  
 157 DP-1 = 1 ZEAMX Apr-26-2014  
ARM Action Codes  
 ET1 = Excluded treatment 1  
 TY1 = 3.889286\*[30]\*(100-[31])/84.5