

The Ohio State University

Pre Post Corn III Syngenta, Dow, Cheminova, Gowan,

Trial ID: 14PRPOC3 Location: Western Branch F-7 Trial Year: 2014
 Protocol ID: 14PRPOC3 Investigator: Dr. Mark M. Loux
 Project ID: Study Director: Anthony Dobbels
 Sponsor Contact: Various

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 °: 39.86033 N
Longitude of LL Corner °: 83.67265 W

Contacts

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

Crop Description

Crop 1: ZEAMX Zea mays
Variety: Pioneer P1184AM
Description: RR/LL

Planting Date: Apr-26-2014
Planting Method: SEEDDED seeded
Planting Equipment: FPP Finger Pickup Planter
Emergence Date: May-12-2014
Harvest Date: Sep-30-2014
Harvested Width, Unit: 5 FT
Harvested Length, Unit: 30 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:** ABUTH *Abutilon theophrasti*
Common Name: velvetleaf
- Pest 5 Type:** W **Code:** AMARE *Amaranthus retroflexus*
Common Name: Redroot pigweed
- Pest 6 Type:** W **Code:** POLPY *Persicaria pensylvanica*
Common Name: Pennsylvania smartweed
- Pest 7 Type:** W **Code:** SIDSP *Sida spinosa*
Common Name: Prickly sida
- Pest 8 Type:** W **Code:** AMBEL *Ambrosia artemisiifolia*
Common Name: Common ragweed

Site and Design

Treated Plot Width: 6.67 FT
Treated Plot Length: 30 FT
Treated Plot Area: 200.1 FT2 **Treatments:** 10
Replications: 3

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

No. Previous Crop Year
 1. Soybean 2013

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Soil Description

Description Name: F-7 West
% OM: 3.8 **Texture:** SICL silty clay loam
pH: 7.2 **Soil Name:** Kokomo
CEC: 23.6 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B	C
Application Date:	Apr-26-2014	May-21-2014	Jun-5-2014
Appl. Start Time:	7:00 PM	9:30 AM	10:30 AM
Appl. Stop Time:	7:30 PM	10:00 AM	11:00 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	EPO	POST
Application Placement:	BROSOI	BROFOL	BROFOL
Applied By:	Loux	Loux	Ackley
Air Temperature, Unit:	74 F	74 f	66 f
% Relative Humidity:	47	74	73
Wind Velocity, Unit:	7 MPH	3 MPH	5.5 MPH
Wind Direction:	N	SSW	W
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	62 F	64 F	62 F
Soil Moisture:	NORMAL	MOIST	MOIST
% Cloud Cover:	5	99	10
Next Moisture Occurred On:	Apr-28-2014	May-21-2014	Jun-8-2014
Time to Next Moisture, Unit:	1.5 DAY	7 HR	3 DAY

Crop Stage At Each Application

	A		B		C	
Crop 1 Code, BBCH Scale:	ZEAMX	BCOR	ZEAMX	BCOR	ZEAMX	BCOR
Stage Scale Used:	BBCH		BBCH		DESC	
Stage Majority, Percent:	12	100	15	100	15	100
Height, Unit:	4	IN	18	IN	18	IN
Height Minimum, Maximum:	4	5	18	20	18	20

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Pest Stage At Each Application

	A		B		C	
Pest 1 Code, Type, Scale:	SETFA	W	SETFA	W	SETFA	W
Stage Majority, Percent:			12	90	14	100
Stage Minimum, Percent:			11	10		
Stage Maximum, Percent:			12	90		
Height, Unit:			1	IN	1.5	IN
Height Minimum, Maximum:			1	2	1	2
Density, Unit:			183	M2	183	M2
Pest 2 Code, Type, Scale:	AMBTR	W	AMBTR	W	AMBTR	W
Stage Majority, Percent:			12	90	18	100
Stage Minimum, Percent:			12	90		
Stage Maximum, Percent:			14	10		
Height, Unit:			2	IN	5	IN
Height Minimum, Maximum:			1	2	4	6
Density, Unit:			12	M2	12	M2
Pest 3 Code, Type, Scale:	CHEAL	W	CHEAL	W	CHEAL	W
Stage Majority, Percent:			12	90	18	100
Stage Minimum, Percent:			12	90		
Stage Maximum, Percent:			14	10		
Height, Unit:			0.5	IN	1.5	IN
Height Minimum, Maximum:			0.5	1	1	2
Density, Unit:			5.33	M2	5.33	M2
Pest 4 Code, Type, Scale:	ABUTH	W	ABUTH	W	ABUTH	W
Stage Majority, Percent:			10	90		
Stage Minimum, Percent:			10	90		
Stage Maximum, Percent:			12	10		
Height, Unit:			0.5	IN		
Height Minimum, Maximum:			0.25	0.5		
Density, Unit:			4.33	M2		
Pest 5 Code, Type, Scale:	AMARE	W	AMARE	W	AMARE	W
Stage Majority, Percent:			12	100		
Height, Unit:			0.5	IN		
Height Minimum, Maximum:			0.25	0.5		
Density, Unit:			10	M2		
Pest 6 Code, Type, Scale:	POLPY	W	POLPY	W	POLPY	W
Stage Majority, Percent:			12	90		
Stage Minimum, Percent:			10	10		
Stage Maximum, Percent:			12	90		
Height, Unit:			1	IN		
Height Minimum, Maximum:			0.5	1		
Density, Unit:			2.66	M2		
Pest 7 Code, Type, Scale:	SIDSP	W	SIDSP	W	SIDSP	W
Stage Majority, Percent:			10	90		
Stage Minimum, Percent:			10	90		
Stage Maximum, Percent:			11	10		
Height, Unit:			0.25	IN		
Height Minimum, Maximum:			0.25	0.5		
Density, Unit:			8	m2		
Pest 8 Code, Type, Scale:	AMBEL	W	AMBEL	W	AMBEL	W
Stage Majority, Percent:					16	100
Height, Unit:					2	IN
Height Minimum, Maximum:					1	3
Density, Unit:					2	M2

Application Equipment

	A		B		C	
Appl. Equipment:	6 FOOT BOOM	6 FOOT BOOM	6 FOOT BOOM	6 FOOT BOOM	6 FOOT BOOM	6 FOOT BOOM
Equipment Type:	SPRBAC	SPRBAC	SPRBAC	SPRBAC	SPRBAC	SPRBAC
Operation Pressure, Unit:	46 PSI	46 PSI	46 PSI	46 PSI	46 PSI	46 PSI
Nozzle Type:	AI XR	AI XR	AI XR	AI XR	AI XR	AI XR
Nozzle Size:	110015	110015	110015	110015	110015	110015
Nozzle Spacing, Unit:	18 IN	18 IN	18 IN	18 IN	18 IN	18 IN
Boom Length, Unit:	6.67 FT	10 FT	10 FT	6.67 FT	6.67 FT	6.67 FT
Boom Height, Unit:	20 IN	20 IN	20 IN	20 IN	20 IN	20 IN
Ground Speed, Unit:	3 MPH	3 MPH	3 MPH	3 MPH	3 MPH	3 MPH
Carrier:	WATER	WATER	WATER	WATER	WATER	WATER
Spray Volume, Unit:	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA	15 GPA
Mix Size, Unit:	1 Liters	1 Liters	1 Liters	1 Liters	1 Liters	1 Liters
Propellant:	CO2	CO2	CO2	CO2	CO2	CO2

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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-30-201	Sep-30-201	Sep-30-201	Sep-30-201
	4	4	4	4
Rating Type	WEIGHT	MOICON	YIELD	WEITES
Rating Unit	LBS	%	BU	LBS
Number of Subsamples	1	1	1	1
Rating Timing				
Days After First/Last Applic.	157 117	157 117	157 117	157 117
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	ET5		ET5 TY1	ET5
Number of Decimals	1	1	1	1

Trt No.	Treatment Name	Other Rate	Other Rate Unit	Appl Code	Appl Description	37	38	39	40
1	Lexar EZ	2.25 qt/a		A	PRE	45.7 a	17.8 b	230.3 a	58.8 a
1	Halex GT	3.6 pt/a		C	POST				
1	AAtrex	1 pt/a		C	POST				
1	NIS	4.8 oz/a		C	POST				
1	N PAK AMS	1.5 qt/a		C	POST				
2	Bicep II Magnum	1.5 qt/a		A	PRE	43.5 a	17.6 b	220.0 a	58.5 a
2	Halex GT	3.6 pt/a		C	POST				
2	AAtrex	1 pt/a		C	POST				
2	NIS	4.8 oz/a		C	POST				
2	N PAK AMS	1.5 qt/a		C	POST				
3	Bicep II Magnum	1.5 qt/a		A	PRE	40.4 a	17.2 b	205.4 a	58.7 a
3	Halex GT	3.6 pt/a		C	POST				
3	Clarity	8 oz/a		C	POST				
3	NIS	4.8 oz/a		C	POST				
3	N PAK AMS	1.5 qt/a		C	POST				
4	Bicep II Magnum	1.5 qt/a		A	PRE	44.6 a	17.8 b	225.0 a	59.5 a
4	Callisto GT	2 pt/a		C	POST				
4	AAtrex	1 pt/a		C	POST				
4	NIS	4.8 oz/a		C	POST				
4	N PAK AMS	1.5 qt/a		C	POST				
5	Keystone NXT	2.8 qt/a		A	PRE	22.3	17.4 b	112.5	54.4
5	Hornet WDG	4 oz/a		A	PRE				
6	Surestart II	2 pt/a		A	PRE	42.7 a	17.6 b	216.0 a	58.0 a
6	Durango DMA	1.5 pt/a		C	POST				
6	N PAK AMS	1.5 qt/a		C	POST				
7	Surestart II	2 pt/a		B	EPO	39.3 a	17.9 b	198.0 a	58.4 a
7	Durango DMA	1.5 pt/a		B	EPO				
7	N PAK AMS	1.5 qt/a		B	EPO				
8	Bicep II Magnum	1 qt/a		A	PRE	42.4 a	17.8 b	213.7 a	58.4 a
8	Yukon	4 oz/a		C	POST				
8	Roundup PowerMax	22 oz/a		C	POST				
8	NIS	4.8 oz/a		C	POST				
8	N PAK AMS	3 qt/a		C	POST				

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 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-30-201	Sep-30-201	Sep-30-201	Sep-30-201
	4	4	4	4
Rating Type	WEIGHT	MOICON	YIELD	WEITES
Rating Unit	LBS	%	BU	LBS
Number of Subsamples	1	1	1	1
Rating Timing				
Days After First/Last Applic.	157 117	157 117	157 117	157 117
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	ET5		ET5 TY1	ET5
Number of Decimals	1	1	1	1

Trt Treatment No. Name	Other Rate	Other Rate Unit	Appl Code	Appl Description	37	38	39	40
9 Bicep II Magnum	1.5 qt/a		A	PRE	40.8 a	17.9 b	205.7 a	58.6 a
9 Roundup PowerMax	32 oz/a		C	POST				
9 Status	2.5 oz/a		C	POST				
9 N PAK AMS	1.5 qt/a		C	POST				
10 UTC					32.2 a	19.2 a	159.5 a	57.7 a
LSD (P=.05)					10.27	0.97	51.65	1.24
Standard Deviation					5.93	0.56	29.84	0.72
CV					14.38	3.17	14.33	1.23
Grand Mean					41.28	17.81	208.18	58.52
Bartlett's X2					8.872	14.593	7.186	5.449
P(Bartlett's X2)					0.353	0.103	0.517	0.709
Skewness					-0.5427	0.5673	-0.5685	0.3225
Kurtosis					0.1313	0.4607	0.1331	0.8963
Replicate F					0.906	0.495	0.868	3.753
Replicate Prob(F)					0.4239	0.6174	0.4388	0.0461
Treatment F					1.344	2.818	1.473	1.530
Treatment Prob(F)					0.2916	0.0293	0.2423	0.2231

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

ET5 = Excluded treatment 5

TY1 = 5.185714*[C37]*(100-[C38])/84.5