

# Ohio State University Horticulture and Crop Science

## Syngenta two pass programs in Roundup Ready Corn

Title No. 2:  
 Trial ID: 11SYN2PASS      Protocol ID: 11SYN2PASS  
 Location: WESTERN BRANCH G-6      Study Director: Anthony F. Dobbels  
 Project ID:      Investigator: Dr. Mark M. Loux  
 Sponsor Contact: Dain Bruns, Syngenta

### General Trial Information

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

### Trial Location

**City:** South Charleston      **Latitude of LL Corner °:** 39.85946 N  
**State/Prov.:** Ohio      **Longitude of LL Corner °:** -83.67491 W  
**Postal Code:** 45368  
**Country:** USA

### No.      Description

1. 14-21 DAT after APPLICATION A

### Crop Description

**Crop 1:** ZEAMX      Zea mays      Corn  
**Variety:** Pioneer 33W84  
**BCH Scale:** BCOR      **Description:** RR/LL  
**Planting Method:** SEEDED      seeded      **Planting Date:** May-31-2011  
**Depth, Unit:** 2      IN      **Rate, Unit:** 32097 S/A  
**Row Spacing, Unit:** 30      IN  
**Seed Bed:** MEDIUM      medium      **Soil Temperature, Unit:** 72      F  
**Soil Moisture:** SLIWET      slightly wet      **Emergence Date:** Jun-6-2011  
**Harvested Width, Unit:** 5      FT      **Harvested Length, Unit:** 30      FT

### 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:** ABUTH      *Abutilon theophrasti*  
**Common Name:** Velvetleaf

**Pest 4 Type:** W      **Code:** IPOHE      *Ipomoea hederacea*  
**Common Name:** Ivyleaf morningglory

**Pest 5 Type:** W      **Code:** AMARE      *Amaranthus retroflexus*  
**Common Name:** Redroot pigweed

**Pest 6 Type:** W      **Code:** CHEAL      *Chenopodium album*  
**Common Name:** Common lambsquarters

### Site and Design

**Plot Width, Unit:** 10 FT      **Site Type:** FIELD      field  
**Plot Length, Unit:** 30 FT      **Experimental Unit:** 1      PLOT plot  
**Plot Area, Unit:** 300 FT2      **Tillage Type:** CONTIL      conventional-till  
**Replications:** 4      **Study Design:** RACOB      Randomized Complete Block (RCB)  
**Untreated Arrangement:** INCLUDED      single control randomized in each block

### Soil Description

**Description Name:** G-6  
**% OM:** 2.2      **Texture:** SIL silt loam  
**pH:** 6.3      **Soil Name:** Crosby  
**CEC:** 13.6      **Fert. Level:** G good  
**Soil Drainage:** G good

# Ohio State University Horticulture and Crop Science

## Syngenta two pass programs in Roundup Ready Corn

Title No. 2:  
 Trial ID: 11SYN2PASS      Protocol ID: 11SYN2PASS  
 Location: WESTERN BRANCH G-6      Study Director: Anthony F. Dobbels  
 Project ID:      Investigator: Dr. Mark M. Loux  
 Sponsor Contact: Dain Bruns, Syngenta

### Application Description

	A	B
Application Date:	May-31-2011	Jun-27-2011
Time of Day:	11:15 A.M	9:00 A.M.
Application Method:	SPRAY	SPRAY
Application Timing:	PRE	POST
Application Placement:	BROSOL	BROFOL
Applied By:	Reeb	Dobbels
Air Temperature, Unit:	89.9 F	67.5 F
% Relative Humidity:	62.1	72.5
Wind Velocity, Unit:	3.8 MPH	1.9 MPH
Wind Direction:	SSW	SSW
Dew Presence (Y/N):	N no	Y yes
Soil Temperature, Unit:	72 F	62 F
Soil Moisture:	GOOD	MOIST
% Cloud Cover:	2	75
Next Rain Occurred On:	Jun-3-2011	Jun-27-2011

### Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	ZEAMX BCOR	ZEAMX BCOR
Stage Scale Used:		BBCH
Stage Majority, Percent:		16 100
Height, Unit:		22 IN
Height Minimum, Maximum:		20 24

### Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:		13 100
Height, Unit:		4 IN
Height Minimum, Maximum:		4 6
Density, Unit:	41 M2	41 M2
Pest 2 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:		16 80
Stage Minimum, Percent:		12 10
Stage Maximum, Percent:		16 80
Density, Unit:	4 M2	4 M2
Pest 3 Code, Type, Scale:	ABUTH W	ABUTH W
Stage Majority, Percent:		12 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 2
Pest 4 Code, Type, Scale:	IPOHE W	IPOHE W
Stage Majority, Percent:		12 100
Height, Unit:		2 IN
Height Minimum, Maximum:		2 3
Density, Unit:	2 M2	2 M2
Pest 5 Code, Type, Scale:	AMARE W	AMARE W
Stage Majority, Percent:		12 100
Height, Unit:		1 IN
Height Minimum, Maximum:		1 1
Pest 6 Code, Type, Scale:	CHEAL W	CHEAL W
Density, Unit:	2 M2	2 M2

### Application Equipment

	A	B
Appl. Equipment:	10 Foot Boom	10 Foot Boom
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	46 PSI	46 PSI
Nozzle Type:	TEEJET DG	TEEJET DG
Nozzle Size:	80015	80015
Nozzle Spacing, Unit:	18 IN	18 IN
Boom Length, Unit:	10 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:	0.33 Gallons	0.33 Gallons
Propellant:	CO2	CO2

# Ohio State University Horticulture and Crop Science

## Syngenta two pass programs in Roundup Ready Corn

Title No. 2:  
 Trial ID: 11SYN2PASS  
 Location: WESTERN BRANCH G-6  
 Project ID:

Protocol ID: 11SYN2PASS  
 Study Director: Anthony F. Dobbels  
 Investigator: Dr. Mark M. Loux  
 Sponsor Contact: Dain Bruns, Syngenta

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 No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	26	27	28
1	Lumax	1.97 lb ai/a		2 qt/a		A	48.2 a	21.8 a	231.3 a
1	Touchdown Total	0.78 lb ae/a		24 oz/a		B			
1	N-PAK AMS	2.5 % v/v		1.5 qt/a		B			
2	Lexar	2.08 lb ai/a		2.25 qt/a		A	49.0 a	19.8 a	241.2 a
2	Touchdown Total	0.78 lb ae/a		24 oz/a		B			
2	N-PAK AMS	2.5 % v/v		1.5 qt/a		B			
3	Corvus	0.0616 lb ai/a		3 oz/a		A	49.1 a	20.5 a	239.8 a
3	Atrazine	1 lb ai/a		1 qt/a		A			
3	Touchdown Total	0.78 lb ae/a		24 oz/a		B			
3	N-PAK AMS	2.5 % v/v		1.5 qt/a		B			
4	Verdict	0.435 lb ai/a		10 oz/a		A	48.2 a	19.5 a	238.3 a
4	Touchdown Total	0.78 lb ae/a		24 oz/a		B			
4	N-PAK AMS	2.5 % v/v		1.5 qt/a		B			
5	Surestart	0.93 lb ai/a		1.75 pt/a		A	48.9 a	18.7 a	244.3 a
5	Durango DMA	0.75 lb ae/a		24 oz/a		B			
5	N-PAK AMS	2.5 % v/v		1.5 qt/a		B			
6	Fierce	0.095 lb ai/a		2 oz/a		A	50.0 a	19.7 a	246.5 a
6	Touchdown Total	0.78 lb ae/a		24 oz/a		B			
6	N-PAK AMS	2.5 % v/v		1.5 qt/a		B			
7	Balance Flexx	0.047 lb ai/a		3 oz/a		A	49.1 a	20.1 a	240.8 a
7	Atrazine	1 lb ai/a		1 qt/a		A			
7	Touchdown Total	0.78 lb ae/a		24 oz/a		B			
7	N-PAK AMS	2.5 % v/v		1.5 qt/a		B			
8	Bicep II Magnum	1.92 lb ai/a		1.4 qt/a		A	50.7 a	19.8 a	249.1 a
8	Touchdown Total	0.78 lb ae/a		24 oz/a		B			
8	N-PAK AMS	2.5 % v/v		1.5 qt/a		B			
9	Bicep II Magnum	1.92 lb ai/a		1.4 qt/a		A	48.9 a	18.8 a	243.6 a
9	Halex GT	1.97 lb ae/a		3.6 pt/a		B			
9	NIS	0.25 % v/v		4.8 oz/a		B			
9	N-PAK AMS	2.5 % v/v		1.5 qt/a		B			
10	Zidua	0.08 lb ai/a		1.5 oz/a		A	48.9 a	21.1 a	237.1 a
10	Atrazine	1 lb ai/a		1 qt/a		A			
10	Touchdown Total	0.78 lb ae/a		24 oz/a		B			

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.

# Ohio State University Horticulture and Crop Science

## Syngenta two pass programs in Roundup Ready Corn

Title No. 2:  
Trial ID: 11SYN2PASS  
Location: WESTERN BRANCH G-6  
Project ID:

Protocol ID: 11SYN2PASS  
Study Director: Anthony F. Dobbels  
Investigator: Dr. Mark M. Loux  
Sponsor Contact: Dain Bruns, Syngenta

Pest Type			
Pest Code			
Pest Scientific Name			
Pest Name			
Crop Code	ZEAMX	ZEAMX	ZEAMX
BBCH Scale	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn
Rating Date	Nov-2-2011	Nov-2-2011	Nov-2-2011
Rating Type	YIELD	MOICON	YIELD
Rating Unit	LBS	%	BU
Number of Subsamples	1	1	1
Days After First/Last Applic.	155 128	155 128	155 128
Trt-Eval Interval	HARVEST	HARVEST	HARVEST
Plant-Eval Interval	155 DP-1	155 DP-1	155 DP-1
Days After Emergence	149 DE-1	149 DE-1	149 DE-1
ARM Action Codes			TY1
Number of Decimals	1	1	1

Trt	Treatment	Rate	Other	Other	Appl				
No.	Name	Rate	Unit	Rate	Unit	Code	26	27	28
10	N-PAK AMS	2.5	% v/v	1.5	qt/a	B			

LSD (P=.05)	2.80	2.22	16.13
Standard Deviation	1.93	1.53	11.12
CV	3.93	7.65	4.61
Bartlett's X2	10.181	11.416	17.229
P(Bartlett's X2)	0.336	0.248	0.045*
Replicate F	1.366	0.503	1.239
Replicate Prob(F)	0.2744	0.6833	0.3149
Treatment F	0.599	1.519	0.837
Treatment Prob(F)	0.7864	0.1917	0.5896

Crop Code  
ZEAMX, BCOR, Zea mays, = US  
Rating Type  
YIELD = yield  
MOICON = moisture content  
Rating Unit  
% = percent  
BU = bushel  
Plant-Eval Interval  
155 DP-1 = 1 May-31-2011  
ARM Action Codes  
TY1 = 5.185714\*[26]\*(100-[27])/84.5

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.