

# Purdue University

## Evaluation of 2012 Syngenta corn herbicide programs

Trial ID: 12S-THP-CTC-15      Protocol ID: 12S-THP-CTC-15  
 Location: Throckmorton      Study Director: White/Marquardt  
 Project ID: ZSPM005A      Investigator: Dr. Bill Johnson  
 Sponsor Contact: Syngenta- Steve Mroczkiewicz

### General Trial Information

**Study Director:** White/Marquardt      **Title:** Research Associate  
**Investigator:** Dr. Bill Johnson      **Title:** Professor

**Discipline:** H herbicide  
**Trial Status:** E established  
**Initiation Date:** 4-2-2012

### Trial Location

**City:** Lafayette  
**State/Prov.:** IN  
**Postal Code:** 47909  
**Country:** USA

### Personnel

**Study Director:** White/Marquardt      **Title:** Research Associate  
**Affiliation:** Purdue University  
**Address:** 915 W State Street  
**Location:** West Lafayette, IN, USA  
**Postal Code:** 47907      **E-mail:** mdwhite@purdue.edu  
**Phone No.:** 765-494-0891  
**Investigator:** Dr. Bill Johnson      **Title:** Professor  
**Affiliation:** Purdue University  
**Address:** 915 W State Street  
**Location:** West Lafayette, IN, USA  
**Postal Code:** 47907      **E-mail:** wji@purdue.edu  
**Phone No.:** 765-494-4656      **Mobile No.:** 765-404-9801

### Cooperator/Landowner

**Cooperator:** Throckmorton Purdue Ag Center      **Role:** Purdue Ag Center  
**Organization:** Purdue University  
**Address 1:** 8343 US 231 S  
**City:** Lafayette      **Phone No.:** 765-538-3422  
**State/Prov:** IN      **Fax No.:** 765-538-3423  
**Postal Code:** 47909      **E-mail:** jayyoung@purdue.edu  
**Country:** USA      United States

### Crop Description

**Crop 1:** ZEAMD Zea mays indentata Dent corn  
**Description:** HXX, LL, RR2  
**BBCH Scale:** BCOR  
**Planting Method:** PLANTD planted  
**Planting Date:** 4-18-2012  
**Depth, Unit:** 1.5 IN  
**Rate, Unit:** 32000 S/A  
**Row Spacing, Unit:** 30 IN  
**Soil Moisture:** DRY dry  
**Soil Temperature, Unit:** 67 F  
**Emergence Date:** 5-2-2012

### Pest Description

**Pest 1 Type:** W      **Code:** CHEAL Chenopodium album  
**Common Name:** Common lambsquarters  
**Pest 2 Type:** W      **Code:** SETFA Setaria faberi  
**Common Name:** Giant foxtail  
**Pest 3 Type:** W      **Code:** ABUTH Abutilon theophrasti  
**Common Name:** Velvetleaf  
**Pest 4 Type:** W      **Code:** AMBTR Ambrosia trifida  
**Common Name:** Giant ragweed

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## Site and Design

**Plot Width, Unit:** 10 FT  
**Plot Length, Unit:** 30 FT  
**Plot Area, Unit:** 300 FT<sup>2</sup>  
**Replications:** 4

**Site Type:** FIELD field  
**Experimental Unit:** 1 PLOT plot  
**Tillage Type:** CONTIL conventional-till  
**Study Design:** RACOBL Randomized Complete Block (RCB)  
**Untreated Arrangement:** INCLUDED single control randomized in each block

## Soil Description

**Description Name:** TPAC -Field 4A  
**% OM:** 3.1  
**pH:** 6  
**CEC:** 11.1

**Texture:** SIL silt loam  
**Soil Name:** Toronto-Millbrook

## Application Description

	A	B
<b>Application Date:</b>	4-18-2012	5-22-2012
<b>Time of Day:</b>		10 AM
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>	ATPLAN	EAPOCR
<b>Application Placement:</b>	SOIL	FOLIAR
<b>Applied By:</b>	MW	MW
<b>Air Temperature, Unit:</b>	67 F	63 F
<b>% Relative Humidity:</b>	48	54
<b>Wind Velocity, Unit:</b>	4 MPH	7 MPH
<b>Wind Direction:</b>	S	E
<b>Dew Presence (Y/N):</b>	N no	N no
<b>Soil Temperature, Unit:</b>	65 F	69 F
<b>Soil Moisture:</b>	DRY	DRY
<b>% Cloud Cover:</b>	15	5

## Crop Stage At Each Application

	A	B
<b>Crop 1 Code, BBCH Scale:</b>	ZEAMD BCOR	ZEAMD BCOR

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## Pest Stage At Each Application

	A	B
<b>Pest 1 Code, Type, Scale:</b>	CHEAL W	CHEAL W
<b>Height, Unit:</b>		1.25 IN
<b>Height Minimum, Maximum:</b>		0.5 2
<b>Density, Unit:</b>		60 YD2
<b>Pest 2 Code, Type, Scale:</b>	SETFA W	SETFA W
<b>Height, Unit:</b>		2.5 IN
<b>Height Minimum, Maximum:</b>		1 4
<b>Density, Unit:</b>		25 YD2
<b>Pest 3 Code, Type, Scale:</b>	ABUTH W	ABUTH W
<b>Height, Unit:</b>		1.75 IN
<b>Height Minimum, Maximum:</b>		1 2.5
<b>Density, Unit:</b>		3 YD2
<b>Pest 4 Code, Type, Scale:</b>	AMBTR W	AMBTR W
<b>Height, Unit:</b>		4.5 IN
<b>Height Minimum, Maximum:</b>		1 8
<b>Density, Unit:</b>		6 YD2

## Application Equipment

	A	B
<b>Appl. Equipment:</b>	CO2 FORD	CO2 FORD
<b>Equipment Type:</b>	SPTRMO	SPTRMO
<b>Nozzle Type:</b>	FLAT FAN	FLAT FAN
<b>Nozzle Size:</b>	XR 100 02	XR 100 02
<b>Nozzle Spacing, Unit:</b>	20 IN	20 IN
<b>Nozzles/Row:</b>	6	6
<b>Boom Length, Unit:</b>	10 FT	10 FT
<b>Boom Height, Unit:</b>	20 IN	20 IN
<b>Ground Speed, Unit:</b>	2.1 MPH	2.1 MPH
<b>Carrier:</b>	MEIGS	MEIGS
<b>Spray Volume, Unit:</b>	20 gal/ac	20 gal/ac
<b>Mix Size, Unit:</b>	2.5 liters	2.5 liters
<b>Propellant:</b>	CO2	CO2

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## Evaluation of 2012 Syngenta corn herbicide programs

Trial ID: 12S-THP-CTC-15      Protocol ID: 12S-THP-CTC-15  
 Location: Throckmorton      Study Director: White/Marquardt  
 Project ID: ZSPM005A      Investigator: Dr. Bill Johnson  
 Sponsor Contact: Syngenta- Steve Mroczkiewicz

Pest Type	W Weed AMBTR	W Weed SETFA	W Weed CHEAL	W Weed ABUTH	W Weed AMBTR	W Weed SETFA					
Pest Code	Ambrosia trifi>	Setaria faberi	Chenopodium al>	Abutilon theop>	Ambrosia trifi>	Setaria faberi					
Pest Scientific Name	Giant ragweed	Giant foxtail	Common lambsqu>	Velvetleaf	Giant ragweed	Giant foxtail					
Pest Name	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR	ZEAMX BCOR					
Crop Code	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays					
BBCH Scale	Corn	Corn	Corn	Corn	Corn	Corn					
Crop Scientific Name	5-22-2012	5-22-2012	5-22-2012	5-22-2012	6-4-2012	6-4-2012					
Crop Name	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO					
Rating Date	%	%	%	%	%	%					
Rating Type	1	1	1	1	1	1					
Rating Unit	Crop Stage Majority	Crop Stage Majority	Crop Stage Majority	Crop Stage Majority	Crop Stage Majority	Crop Stage Majority					
Number of Subsamples	V4	V4	V4	V4	V5	V5					
Crop Stage Majority	5 IN	2.5 IN	2.5 IN	1 IN	1-30 IN	1-15 IN					
Crop Stage Scale	4 YD2	20 FT2	8 FT2	3 YD2	25 M2	50 M2					
Pest Stage Majority	MW	MW	MW	MW	JS/GN	JS/GN					
Pest Density, Unit	34 34	34 34	34 34	34 34	47 13	47 13					
Assessed By	34 DP-1	34 DP-1	34 DP-1	34 DP-1	47 DP-1	47 DP-1					
Days After First/Last Applic.	20 DE-1	20 DE-1	20 DE-1	20 DE-1	33 DE-1	33 DE-1					
Plant-Eval Interval											
Days After Emergence											
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7
1	Untreated Check				0.0 b	0.0 c	0.0 b	0.0 c	0.0 b	0.0 e	0.0 c
2	Lumax (3.95 SC)	3.2 lb ai/a	A		82.5 a	99.0 a	99.0 a	99.0 a	0.0 b	92.0 a	98.3 a
	Touchdown Total (4.17 SL)	0.78 lb ae/a	B								
	AMS - Liquid	17 lb ai/100 gal	B								
3	Lumax (3.95 SC)	3.2 lb ai/a	A		80.0 a	95.3 ab	99.0 a	99.0 a	0.0 b	56.3 d	81.3 b
4	Halex GT (4.39 SC)	1.98 lb ai/a	B		0.0 b	0.0 c	0.0 b	0.0 c	0.0 b	82.5 abc	91.3 ab
	Atrazine	0.5 lb ai/a	B								
	NIS	1 qt/100 gal	B								
	AMS - Liquid	8.5 lb ai/100 gal	B								
5	Bicep II Magnum (5.5 SC)	1.79 lb ai/a	A		73.8 a	97.5 ab	99.0 a	82.0 b	0.0 b	88.3 abc	99.5 a
	Touchdown Total (4.17 SL)	0.78 lb ae/a	B								
	AMS - Liquid	8.5 lb ai/100 gal	B								
6	Bicep II Magnum (5.5 SC)	1.79 lb ai/a	A		78.8 a	98.0 ab	96.8 a	94.3 a	0.0 b	93.8 a	100.0 a
	Halex GT (4.39 SC)	1.98 lb ai/a	B								
	Atrazine	0.5 lb ai/a	B								
	NIS	1 qt/100 gal	B								
	AMS - Liquid	8.5 lb ai/100 gal	B								
7	Lexar (3.7 SC)	1.79 lb ai/a	A		78.8 a	96.5 ab	99.0 a	99.0 a	0.0 b	92.5 a	98.3 a
	Halex GT (4.39 SC)	1.98 lb ai/a	B								
	Atrazine	0.5 lb ai/a	B								
	NIS	1 qt/100 gal	B								
	AMS - Liquid	8.5 lb ai/100 gal	B								
8	Touchdown Total (4.17 SL)	0.78 lb ae/a	B		0.0 b	0.0 c	0.0 b	0.0 c	0.0 b	76.3 c	82.5 b
	Callisto Xtra (3.7 SC)	0.58 lb ai/a	B								
	AMS - Liquid	8.5 lb ai/100 gal	B								
9	Corvus (2.63 SC)	0.115 lb ai/a	A		78.8 a	93.8 b	99.0 a	99.0 a	0.0 b	94.0 a	99.5 a
	Liberty 280 (2.34 SL)	0.402 lb ai/a	B								
	AMS - Liquid	8.5 lb ai/100 gal	B								

Means followed by same letter do not significantly differ (P= .05, Student-Newman-Keuls)  
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Pest Type	W Weed AMBTR	W Weed SETFA	W Weed CHEAL	W Weed ABUTH	W Weed AMBTR	W Weed SETFA					
Pest Code	AMBTR	SETFA	CHEAL	ABUTH	AMBTR	SETFA					
Pest Scientific Name	Ambrosia trifid>	Setaria faberi	Chenopodium albidum>	Abutilon theophrasti>	Ambrosia trifid>	Setaria faberi					
Pest Name	Giant ragweed	Giant foxtail	Common lambsquarters	Velvetleaf	Giant ragweed	Giant foxtail					
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX					
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR					
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays					
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn					
Rating Date	5-22-2012	5-22-2012	5-22-2012	5-22-2012	6-4-2012	6-4-2012					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO					
Rating Unit	%	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1	1					
Crop Stage Majority											
Crop Stage Scale	V4	V4	V4	V4	V5	V5					
Pest Stage Majority	5 IN	2.5 IN	2.5 IN	1 IN	1-30 IN	1-15 IN					
Pest Density, Unit	4 YD2	20 FT2	8 FT2	3 YD2	25 M2	50 M2					
Assessed By	MW	MW	MW	MW	JS/GN	JS/GN					
Days After First/Last Applic.	34 34	34 34	34 34	34 34	47 13	47 13					
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	34 DP-1	47 DP-1	47 DP-1					
Days After Emergence	20 DE-1	20 DE-1	20 DE-1	20 DE-1	33 DE-1	33 DE-1					
Trt No.	Treatment Name	Rate	Unit	Appl Code	1	2	3	4	5	6	7
10	SureStart (4.25 SC)	1.33 lb ai/a	A		82.5 a	94.5 ab	96.8 a	99.0 a	0.8 a	90.8 ab	100.0 a
	Durango DMA (4 SL)	0.75 lb ae/a	B								
	AMS - Liquid	8.5 lb ai/100 gal	B								
11	Armezon (2.8 SC)	0.0109 lb ai/a	B		0.0 b	0.0 c	0.0 b	0.0 c	0.0 b	78.8 bc	93.3 a
	Touchdown Total (4.17 SL)	0.78 lb ae/a	B								
	Atrazine	0.5 lb ai/a	B								
	AMS - Liquid	8.5 lb ai/100 gal	B								
12	Zidua (85 WG)	2.13 oz ai/a	A		77.5 a	97.7 ab	96.8 a	99.0 a	0.0 b	87.5 abc	100.0 a
	Verdict (5.57 SC)	6.96 oz ai/a	A								
	Touchdown Total (4.17 SL)	0.78 lb ae/a	B								
	AMS - Liquid	8.5 lb ai/100 gal	B								
LSD (P=.05)					11.59	3.28	3.35	9.01	0.40	8.80	8.83
Standard Deviation					8.03	2.27	2.32	6.24	0.28	6.09	6.11
CV					15.23	3.53	3.54	9.72	442.22	7.84	7.03
Bartlett's X2					14.192	5.751	0.0	1.517	0.0	12.769	29.669
P(Bartlett's X2)					0.048*	0.452	1.00	0.218	.	0.237	0.001*
Replicate F					3.738	1.557	0.314	1.651	1.000	8.095	0.136
Replicate Prob(F)					0.0204	0.2188	0.8149	0.1965	0.4051	0.0004	0.9380
Treatment F					94.352	1752.949	1740.657	233.385	2.455	76.916	85.142
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0228	0.0001	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	CHEAL	AMBTR	CHEAL	ABUTH	AMBTR				
Pest Scientific Name	Chenopodium al>	Ambrosia trifi>	Chenopodium al>	Abutilon theop>	Ambrosia trifi>				
Pest Name	Common lambsqu>	Giant ragweed	Common lambsqu>	Velvetleaf	Giant ragweed				
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX				
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR				
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays				
Crop Name	Corn	Corn	Corn	Corn	Corn				
Rating Date	6-4-2012	6-18-2012	6-18-2012	6-18-2012	6-18-2012				
Rating Date	7-17-2012								
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN				
Rating Unit	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1				
Crop Stage Majority		48 IN	48 IN	48 IN	48 IN				
Crop Stage Scale	V5	V8	V8	V8	V8				
Pest Stage Majority	1-15 IN	3-48 IN	3-36 IN	3-36 IN	72 IN				
Pest Density, Unit	25 M2	25 M2	25 M2	5 M2	3 YD2				
Assessed By	JS/GN	PM	PM	PM	PM				
Days After First/Last Applic.	47 13	61 27	61 27	61 27	61 27				
Plant-Eval Interval	47 DP-1	61 DP-1	61 DP-1	61 DP-1	61 DP-1				
Days After Emergence	33 DE-1	47 DE-1	47 DE-1	47 DE-1	47 DE-1				
Trt No.	Treatment	Rate	Appl Code	8	9	10	11	12	13
1	Untreated Check			0.0 b	0.0 c	0.0 b	0.0 b	0.0 a	0.0 c
2	Lumax (3.95 SC)	3.2 lb ai/a	A	100.0 a	94.3 a	100.0 a	100.0 a	0.0 a	92.3 a
	Touchdown Total (4.17 SL)	0.78 lb ae/a	B						
	AMS - Liquid	17 lb ai/100 gal	B						
3	Lumax (3.95 SC)	3.2 lb ai/a	A	100.0 a	30.0 b	100.0 a	100.0 a	0.0 a	17.5 b
4	Halex GT (4.39 SC)	1.98 lb ai/a	B	95.0 a	98.0 a	99.5 a	100.0 a	11.3 a	91.8 a
	Atrazine	0.5 lb ai/a	B						
	NIS	1 qt/100 gal	B						
	AMS - Liquid	8.5 lb ai/100 gal	B						
5	Bicep II Magnum (5.5 SC)	1.79 lb ai/a	A	100.0 a	92.0 a	100.0 a	100.0 a	0.0 a	89.3 a
	Touchdown Total (4.17 SL)	0.78 lb ae/a	B						
	AMS - Liquid	8.5 lb ai/100 gal	B						
6	Bicep II Magnum (5.5 SC)	1.79 lb ai/a	A	100.0 a	98.3 a	100.0 a	100.0 a	0.0 a	93.5 a
	Halex GT (4.39 SC)	1.98 lb ai/a	B						
	Atrazine	0.5 lb ai/a	B						
	NIS	1 qt/100 gal	B						
	AMS - Liquid	8.5 lb ai/100 gal	B						
7	Lexar (3.7 SC)	1.79 lb ai/a	A	100.0 a	95.0 a	100.0 a	100.0 a	0.0 a	89.3 a
	Halex GT (4.39 SC)	1.98 lb ai/a	B						
	Atrazine	0.5 lb ai/a	B						
	NIS	1 qt/100 gal	B						
	AMS - Liquid	8.5 lb ai/100 gal	B						
8	Touchdown Total (4.17 SL)	0.78 lb ae/a	B	92.5 a	98.0 a	99.0 a	100.0 a	12.5 a	85.5 a
	Callisto Xtra (3.7 SC)	0.58 lb ai/a	B						
	AMS - Liquid	8.5 lb ai/100 gal	B						
9	Corvus (2.63 SC)	0.115 lb ai/a	A	100.0 a	94.5 a	100.0 a	100.0 a	0.0 a	90.0 a
	Liberty 280 (2.34 SL)	0.402 lb ai/a	B						
	AMS - Liquid	8.5 lb ai/100 gal	B						

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Pest Type	W Weed CHEAL	W Weed AMBTR	W Weed CHEAL	W Weed ABUTH	W Weed AMBTR					
Pest Code	CHEAL	AMBTR	CHEAL	ABUTH	AMBTR					
Pest Scientific Name	Chenopodium al>	Ambrosia trifi>	Chenopodium al>	Abutilon theop>	Ambrosia trifi>					
Pest Name	Common lambsqu>	Giant ragweed	Common lambsqu>	Velvetleaf	Giant ragweed					
Crop Code	ZEAMX	ZEAMX	ZEAMX	ZEAMX	ZEAMX					
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR					
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays					
Crop Name	Corn	Corn	Corn	Corn	Corn					
Rating Date	6-4-2012	6-18-2012	6-18-2012	6-18-2012	7-17-2012					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Crop Stage Majority		48 IN	48 IN	48 IN	48 IN					
Crop Stage Scale	V5	V8	V8	V8	V8					
Pest Stage Majority	1-15 IN	3-48 IN	3-36 IN	3-36 IN	72 IN					
Pest Density, Unit	25 M2	25 M2	25 M2	5 M2	3 YD2					
Assessed By	JS/GN	PM	PM	PM	MW					
Days After First/Last Applic.	47 13	61 27	61 27	61 27	90 56					
Plant-Eval Interval	47 DP-1	61 DP-1	61 DP-1	61 DP-1	90 DP-1					
Days After Emergence	33 DE-1	47 DE-1	47 DE-1	47 DE-1	76 DE-1					
Trt No.	Treatment Name	Rate	Unit	Appl Code	8	9	10	11	12	13
10	SureStart (4.25 SC)	1.33 lb ai/a		A	100.0 a	95.8 a	100.0 a	100.0 a	0.0 a	91.5 a
	Durango DMA (4 SL)	0.75 lb ae/a		B						
	AMS - Liquid	8.5 lb ai/100 gal		B						
11	Armezon (2.8 SC)	0.0109 lb ai/a		B	85.0 a	95.8 a	98.8 a	100.0 a	5.0 a	88.5 a
	Touchdown Total (4.17 SL)	0.78 lb ae/a		B						
	Atrazine	0.5 lb ai/a		B						
	AMS - Liquid	8.5 lb ai/100 gal		B						
12	Zidua (85 WG)	2.13 oz ai/a		A	100.0 a	93.4 a	100.0 a	100.0 a	0.0 a	85.5 a
	Verdict (5.57 SC)	6.96 oz ai/a		A						
	Touchdown Total (4.17 SL)	0.78 lb ae/a		B						
	AMS - Liquid	8.5 lb ai/100 gal		B						
	LSD (P=.05)				9.24	14.19	1.20	0.00	8.49	17.26
	Standard Deviation				6.40	9.83	0.83	0.00	5.88	11.95
	CV				7.16	11.97	0.91	0.0	245.56	15.69
	Bartlett's X2				0.469	32.772	3.025	0.0	0.399	22.843
	P(Bartlett's X2)				0.791	0.001*	0.22	.	0.819	0.011*
	Replicate F				1.000	2.783	1.394	0.000	2.904	3.281
	Replicate Prob(F)				0.4051	0.0568	0.2620	1.0000	0.0493	0.0330
	Treatment F				79.447	42.515	4790.208	0.000	2.510	28.345
	Treatment Prob(F)				0.0001	0.0001	0.0001	1.0000	0.0202	0.0001

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Pest Type	W Weed	W Weed		
Pest Code	CHEAL	SETFA		
Pest Scientific Name	Chenopodium al>	Setaria faberi		
Pest Name	Common lambsqu>	Giant foxtail		
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	7-17-2012	7-17-2012	9-24-2012	9-24-2012
Rating Type	CONTRO	CONTRO	MOICON	YIELD
Rating Unit	%	%	%	bu/ac
Number of Subsamples	1	1	1	1
Crop Stage Majority				
Crop Stage Scale				
Pest Stage Majority	57 IN	29 IN		
Pest Density, Unit	6 FT2	20 FT2		
Assessed By	MW	MW		
Days After First/Last Applic.	90 56	90 56	159 125	159 125
Plant-Eval Interval	90 DP-1	90 DP-1	159 DP-1	159 DP-1
Days After Emergence	76 DE-1	76 DE-1	145 DE-1	145 DE-1
Trt Treatment	Rate	Appl		
No. Name	Rate Unit	Code	14	15
1 Untreated Check			0.0 c	0.0 c
2 Lumax (3.95 SC)	3.2 lb ai/a	A	99.0 a	98.5 a
Touchdown Total (4.17 SL)	0.78 lb ae/a	B		
AMS - Liquid	17 lb ai/100 gal	B		
3 Lumax (3.95 SC)	3.2 lb ai/a	A	24.8 b	22.5 b
4 Halex GT (4.39 SC)	1.98 lb ai/a	B	84.8 a	93.0 a
Atrazine	0.5 lb ai/a	B		
NIS	1 qt/100 gal	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
5 Bicep II Magnum (5.5 SC)	1.79 lb ai/a	A	99.0 a	98.0 a
Touchdown Total (4.17 SL)	0.78 lb ae/a	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
6 Bicep II Magnum (5.5 SC)	1.79 lb ai/a	A	99.0 a	98.0 a
Halex GT (4.39 SC)	1.98 lb ai/a	B		
Atrazine	0.5 lb ai/a	B		
NIS	1 qt/100 gal	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
7 Lexar (3.7 SC)	1.79 lb ai/a	A	99.0 a	98.5 a
Halex GT (4.39 SC)	1.98 lb ai/a	B		
Atrazine	0.5 lb ai/a	B		
NIS	1 qt/100 gal	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
8 Touchdown Total (4.17 SL)	0.78 lb ae/a	B	86.8 a	91.3 a
Callisto Xtra (3.7 SC)	0.58 lb ai/a	B		
AMS - Liquid	8.5 lb ai/100 gal	B		
9 Corvus (2.63 SC)	0.115 lb ai/a	A	99.0 a	96.5 a
Liberty 280 (2.34 SL)	0.402 lb ai/a	B		
AMS - Liquid	8.5 lb ai/100 gal	B		



### Purdue University

Pest Type	W Weed	W Weed						
Pest Code	CHEAL	SETFA						
Pest Scientific Name	Chenopodium al>	Setaria faberi						
Pest Name	Common lambsqu>	Giant foxtail						
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	7-17-2012	7-17-2012	9-24-2012	9-24-2012				
Rating Type	CONTRO	CONTRO	MOICON	YIELD				
Rating Unit	%	%	%	bu/ac				
Number of Subsamples	1	1	1	1				
Crop Stage Majority								
Crop Stage Scale								
Pest Stage Majority	57 IN	29 IN						
Pest Density, Unit	6 FT2	20 FT2						
Assessed By	MW	MW						
Days After First/Last Applic.	90 56	90 56	159 125	159 125				
Plant-Eval Interval	90 DP-1	90 DP-1	159 DP-1	159 DP-1				
Days After Emergence	76 DE-1	76 DE-1	145 DE-1	145 DE-1				
Trt No.	Treatment Name	Rate	Appl Unit	Code	14	15	16	17
10	SureStart (4.25 SC)	1.33 lb ai/a	A		99.0 a	98.0 a	21.398 a	137.05 a
	Durango DMA (4 SL)	0.75 lb ae/a	B					
	AMS - Liquid	8.5 lb ai/100 gal	B					
11	Armezon (2.8 SC)	0.0109 lb ai/a	B		90.3 a	92.5 a	21.463 a	116.68 a
	Touchdown Total (4.17 SL)	0.78 lb ae/a	B					
	Atrazine	0.5 lb ai/a	B					
	AMS - Liquid	8.5 lb ai/100 gal	B					
12	Zidua (85 WG)	2.13 oz ai/a	A		94.3 a	93.3 a	22.618 a	129.78 a
	Verdict (5.57 SC)	6.96 oz ai/a	A					
	Touchdown Total (4.17 SL)	0.78 lb ae/a	B					
	AMS - Liquid	8.5 lb ai/100 gal	B					
	LSD (P=.05)				21.90	19.14	2.6707	34.525
	Standard Deviation				15.17	13.26	1.8496	23.911
	CV				18.67	16.23	8.54	19.51
	Bartlett's X2				14.811	96.041	18.45	9.968
	P(Bartlett's X2)				0.005*	0.001*	0.072	0.533
	Replicate F				1.614	1.294	0.490	2.336
	Replicate Prob(F)				0.2049	0.2927	0.6914	0.0917
	Treatment F				18.935	25.309	1.695	8.129
	Treatment Prob(F)				0.0001	0.0001	0.1182	0.0001

# Purdue University

## Evaluation of 2012 Syngenta corn herbicide programs

Trial ID: 12S-THP-CTC-15      Protocol ID: 12S-THP-CTC-15  
 Location: Throckmorton      Study Director: White/Marquardt  
 Project ID: ZSPM005A      Investigator: Dr. Bill Johnson  
    Sponsor Contact: Syngenta- Steve Mroczkiewicz

### Pest Type

W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop

### Pest Code

AMBTR, Ambrosia trifida, = US  
 SETFA, Setaria faberi, = US  
 CHEAL, Chenopodium album, = US  
 ABUTH, Abutilon theophrasti, = US

### Crop Code

ZEAMX, BCOR, Zea mays, = US

### Rating Type

CONTRO = control / burndown or knockdown  
 PHYGEN = phytotoxicity - general / injury  
 MOICON = moisture content  
 YIELD = yield

### Rating Unit

% = percent  
 bu/ac = bushels per acre

YD2 = per square yard  
 FT2 = per square foot  
 M2 = per square meter

### Plant-Eval Interval

34 DP-1 = 1 ZEAMD 4-18-2012  
 47 DP-1 = 1 ZEAMD 4-18-2012  
 61 DP-1 = 1 ZEAMD 4-18-2012  
 90 DP-1 = 1 ZEAMD 4-18-2012  
 159 DP-1 = 1 ZEAMD 4-18-2012