

## Company Showcase Corn Herbicide Programs

Trial ID: 15CORNSHOW      Location: Western Branch Big E      Trial Year: 2015  
 Protocol ID: 15CORNSHOW      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director: Anthony Dobbels  
                                  Sponsor Contact:

**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:** USWARM US Warm Continental

**Latitude of LL Corner** °: 39.85711 N  
**Longitude of LL Corner** °: -83.67009 W

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

**Contacts**

**Study Director:** Anthony Dobbels

**Investigator:** Dr. Mark M. Loux

**Crop Description**

**Crop 1:** ZEAMX      Zea mays  
**Variety:** SCS 1105 AM  
**Description:** Seed Consultants RR / LL

Corn

**Planting Rate, Unit:** 32097 S/A  
**Depth, Unit:** 2 IN  
**Row Spacing, Unit:** 30 IN

**Planting Date:** 5-3-2015  
**Planting Method:** PLANTD      planted  
**Planting Equipment:** FPP      Finger Pickup Planter  
**Emergence Date:** 5-9-2015  
**Harvest Date:** 10-1-2015  
**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

**Soil Temperature, Unit:** 60 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:** AMARE *Amaranthus retroflexus*  
**Common Name:** Redroot pigweed

**Pest 4 Type:** W      **Code:** CHEAL *Chenopodium album*  
**Common Name:** Common lambsquarters

**Pest 5 Type:** W      **Code:** ABUTH *Abutilon theophrasti*  
**Common Name:** velvetleaf

**Pest 6 Type:** W      **Code:** HIBTR *Hibiscus trionum*  
**Common Name:** Venice mallow

**Pest 7 Type:** W      **Code:** AMBEL *Ambrosia artemisiifolia*  
**Common Name:** Common ragweed

**Pest 8 Type:** W      **Code:** POLPY *Persicaria pensylvanica*  
**Common Name:** Pennsylvania smartweed

**Site and Design**

**Treated Plot Width:** 10 FT  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 300 FT<sup>2</sup> **Treatments:** 16  
**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 2014

**Soil Description**

**Description Name:** Big E  
**% OM:** 2.8 **Texture:** SIL silt loam  
**pH:** 5.9 **Soil Name:** Kokomo  
**CEC:** 17.44 **Fert. Level:** G good  
**Soil Drainage:** G good

**Additional Measured Elements**

**Date Element Quantity Unit**  
4-24-2015 NH3 180 LBS

**Application Description**

	<b>A</b>	<b>B</b>
<b>Application Date:</b>	5-4-2015	5-28-2015
<b>Appl. Start Time:</b>	11:00 AM	9:10 AM
<b>Appl. Stop Time:</b>	11:20 AM	9:30 AM
<b>Application Method:</b>	SPRAY	SPRAY
<b>Application Timing:</b>	PRE	POST
<b>Application Placement:</b>	BROSOL	BROFOL
<b>Applied By:</b>	Dobbels	Dobbels
<b>Air Temperature, Unit:</b>	73 F	69 F
<b>% Relative Humidity:</b>	45	75
<b>Wind Velocity, Unit:</b>	10 MPH	2.5 MPH
<b>Wind Direction:</b>	SW	E
<b>Dew Presence (Y/N):</b>	N no	
<b>Soil Temperature, Unit:</b>	58 F	66 F
<b>Soil Moisture:</b>	DRY	DRY/MOIST
<b>% Cloud Cover:</b>	40	60
<b>Next Moisture Occurred On:</b>	5-5-2015	5-30-2015
<b>Time to Next Moisture, Unit:</b>	14 HR	2 DAY

**Crop Stage At Each Application**

	<b>A</b>	<b>B</b>
<b>Crop 1 Code, BBCH Scale:</b>	ZEAMX BCOR	ZEAMX BCOR
<b>Stage Scale Used:</b>		BBCH
<b>Stage Majority, Percent:</b>		14 100
<b>Height, Unit:</b>		10 IN
<b>Height Minimum, Maximum:</b>		10 12

**Pest Stage At Each Application**

	<b>A</b>	<b>B</b>
<b>Pest 1 Code, Type, Scale:</b>	SETFA W	SETFA W
<b>Stage Majority, Percent:</b>		13 100
<b>Height, Unit:</b>		3 IN
<b>Height Minimum, Maximum:</b>		2 5
<b>Density, Unit:</b>		126 M2
<b>Pest 2 Code, Type, Scale:</b>	AMBTR W	AMBTR W
<b>Stage Majority, Percent:</b>		14 90
<b>Stage Minimum, Percent:</b>		14 90
<b>Stage Maximum, Percent:</b>		16 10
<b>Diameter, Unit:</b>		3 IN
<b>Height, Unit:</b>		4 IN
<b>Height Minimum, Maximum:</b>		3 5
<b>Density, Unit:</b>		2 M2
<b>Pest 3 Code, Type, Scale:</b>	AMARE W	AMARE W
<b>Stage Majority, Percent:</b>		14 80
<b>Stage Minimum, Percent:</b>		14 80
<b>Stage Maximum, Percent:</b>		16 20
<b>Height, Unit:</b>		2 IN
<b>Height Minimum, Maximum:</b>		1 3
<b>Density, Unit:</b>		4 M2
<b>Pest 4 Code, Type, Scale:</b>	CHEAL W	CHEAL W
<b>Stage Majority, Percent:</b>		16 80
<b>Stage Minimum, Percent:</b>		14 20
<b>Stage Maximum, Percent:</b>		16 80
<b>Diameter, Unit:</b>		1 IN
<b>Height, Unit:</b>		3 IN
<b>Height Minimum, Maximum:</b>		2 4
<b>Density, Unit:</b>		5.25 M2
<b>Pest 5 Code, Type, Scale:</b>	ABUTH W	ABUTH W
<b>Stage Majority, Percent:</b>		12 90
<b>Stage Minimum, Percent:</b>		12 90
<b>Stage Maximum, Percent:</b>		13 10
<b>Height, Unit:</b>		3 IN
<b>Height Minimum, Maximum:</b>		2 3
<b>Density, Unit:</b>		1 M2
<b>Pest 6 Code, Type, Scale:</b>	HIBTR W	HIBTR W
<b>Stage Majority, Percent:</b>		12 100
<b>Diameter, Unit:</b>		1 IN
<b>Height, Unit:</b>		1 IN
<b>Height Minimum, Maximum:</b>		1 1.5
<b>Density, Unit:</b>		0.5 M2
<b>Pest 7 Code, Type, Scale:</b>	AMBEL W	AMBEL W
<b>Stage Majority, Percent:</b>		12 100
<b>Height, Unit:</b>		2 IN
<b>Height Minimum, Maximum:</b>		1 2
<b>Density, Unit:</b>		0.5 M2
<b>Pest 8 Code, Type, Scale:</b>	POLPY W	POLPY W
<b>Stage Majority, Percent:</b>		12 90
<b>Stage Minimum, Percent:</b>		11 10
<b>Stage Maximum, Percent:</b>		12 90
<b>Diameter, Unit:</b>		1 IN
<b>Height, Unit:</b>		1 IN
<b>Height Minimum, Maximum:</b>		0.5 1
<b>Density, Unit:</b>		0.5 M2

**Application Equipment**

	<b>A</b>	<b>B</b>
<b>Appl. Equipment:</b>	6 FOOT BOOM	10' AI XR
<b>Equipment Type:</b>	SPRBAC	SPRBAC
<b>Operation Pressure, Unit:</b>	46 PSI	46 PSI
<b>Nozzle Type:</b>	AI XR	AI XR
<b>Nozzle Size:</b>	110015	110015
<b>Nozzle Spacing, Unit:</b>	18 IN	18 IN
<b>Boom Length, Unit:</b>	6.67 FT	10 FT
<b>Boom Height, Unit:</b>	20 IN	20 IN
<b>Ground Speed, Unit:</b>	3 MPH	3 MPH
<b>Carrier:</b>	WATER	WATER
<b>Spray Volume, Unit:</b>	15 GPA	15 GPA
<b>Mix Size, Unit:</b>	2 Liters	2 Liters
<b>Propellant:</b>	CO2	CO2



## Company Showcase Corn Herbicide Programs

Trial ID: 15CORNSHOW      Location: Western Branch Big E    Trial Year: 2015  
 Protocol ID: 15CORNSHOW    Investigator: Dr. Mark M. Loux  
 Project ID:                      Study Director: Anthony Dobbels  
    Sponsor Contact:

Trt No.	Treatment Name	Other Rate	Other Rate	Unit	Appl Code	Appl Description	31	32	33	34
	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						10-1-2015	10-1-2015	10-1-2015	10-1-2015
	Rating Type						YIELD	MOICON	YIELD	WEITES
	Rating Unit						LBS	%	BU	LBS
	Sample Size, Unit						1 PLOT		1 A	
	Number of Subsamples						1	1	1	1
	Days After First/Last Applc.						150 126	150 126	150 126	150 126
	Trt-Eval Interval									
	Plant-Eval Interval						151 DP-1	151 DP-1	151 DP-1	151 DP-1
	Days After Emergence						145 DE-1	145 DE-1	145 DE-1	145 DE-1
	ARM Action Codes								TY1	
	Number of Decimals						1	1	1	1
1	Keystone NXT	2.5 qt/a			A	PRE	45.4 ab	17.7 a	229.5 ab	57.9 a
1	Hornet	3 oz/a			A	PRE				
1	Durango DMA	1 qt/a			B	POST				
1	N PAK AMS	1.5 qt/a			B	POST				
2	Surestart II	2.5 pt/a			A	PRE	48.1 a	18.2 a	241.6 a	58.5 a
2	Atrazine	1 qt/a			A	PRE				
2	Durango DMA	1 qt/a			B	POST				
2	N PAK AMS	1.5 qt/a			B	POST				
3	GF-3471	2.5 qt/a			A	PRE	45.0 ab	17.6 a	227.2 ab	58.1 a
3	Atrazine	1 qt/a			A	PRE				
3	Durango DMA	1 qt/a			B	POST				
3	N PAK AMS	1.5 qt/a			B	POST				
4	Acuron	1.5 qt/a			A	PRE	45.5 ab	17.7 a	230.0 ab	58.1 a
4	Halex GT	3.6 pt/a			B	POST				
4	AAtrex	1 pt/a			B	POST				
4	NIS	4.8 oz/a			B	POST				
4	N PAK AMS	1.5 qt/a			B	POST				
5	Acuron	1.5 qt/a			A	PRE	45.7 ab	17.2 a	232.0 ab	57.6 a
5	Acuron	1.5 qt/a			B	POST				
5	NIS	4.8 oz/a			B	POST				
5	N PAK AMS	1.5 qt/a			B	POST				
6	Acuron	2 qt/a			B	POST	42.6 bc	18.0 a	214.4 bc	57.7 a
6	NIS	4.8 oz/a			B	POST				
6	N PAK AMS	1.5 qt/a			B	POST				
7	Acuron	2 qt/a			A	PRE	46.3 ab	17.7 a	233.8 ab	58.2 a
7	Touchdown Total	32 oz/a			B	POST				
7	N PAK AMS	1.5 qt/a			B	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.

Pest Type									
Pest Code									
Pest Scientific Name									
Pest Name									
Crop Code									
BBCH Scale									
Crop Scientific Name									
Crop Name									
Rating Date									
Rating Type									
Rating Unit									
Sample Size, 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	Other Rate	Other Unit	Appl Code	Appl Description	31	32	33	34
8	Bicep II Magnum	1.5 qt/a		A	PRE	47.0 ab	18.4 a	235.3 ab	58.4 a
8	Halex GT	3.6 pt/a		B	POST				
8	AAtrex	1 pt/a		B	POST				
8	NIS	4.8 oz/a		B	POST				
8	N PAK AMS	1.5 qt/a		B	POST				
9	Instigate 6 oz					45.7 ab	17.8 a	230.5 ab	58.2 a
9	Rimsulfuron	1 oz/a		A	PRE				
9	Mesotrione	5 oz/a		A	PRE				
9	Cinch ATZ	3 pt/a		A	PRE				
9	Realm Q 4 oz								
9	Rimsulfuron	1.2 oz/a		B	POST				
9	Mesotrione	2.5 oz/a		B	POST				
9	Isoxadifen-ethyl	0.3 oz/a		B	POST				
9	Abundit Extra	32 oz/a		B	POST				
9	N PAK AMS	1.5 qt/a		B	POST				
10	Instigate 6 oz					44.9 ab	17.8 a	226.1 ab	58.1 a
10	Rimsulfuron	1 oz/a		A	PRE				
10	Mesotrione	5 oz/a		A	PRE				
10	Cinch ATZ	3 pt/a		A	PRE				
10	Realm Q 4 oz								
10	Rimsulfuron	1.2 oz/a		B	POST				
10	Mesotrione	2.5 oz/a		B	POST				
10	Isoxadifen-ethyl	0.3 oz/a		B	POST				
10	Atrazine	1 qt/a		B	POST				
10	COC	0.6 qt/a		B	POST				
11	BreakFree ATZ	1.5 pt/a		A	PRE	46.1 ab	18.4 a	230.4 ab	57.8 a
11	Revolin Q 3.4 oz								
11	Nicosulfuron	0.65 oz/a		B	POST				
11	Mesotrione	2.5 oz/a		B	POST				
11	Isoxadifen-ethyl	0.245 oz/a		B	POST				
11	Atrazine	1 qt/a		B	POST				
11	COC	0.6 qt/a		B	POST				
12	Instigate 6 oz					45.0 ab	17.7 a	227.0 ab	57.8 a
12	Rimsulfuron	1 oz/a		A	PRE				
12	Mesotrione	5 oz/a		A	PRE				
12	Cinch ATZ	3 pt/a		A	PRE				
12	Abundit Extra	32 oz/a		B	POST				
12	N PAK AMS	1.5 qt/a		B	POST				
13	Instigate 6 oz					37.9 cd	17.8 a	190.9 cd	57.6 a
13	Rimsulfuron	1 oz/a		A	PRE				
13	Mesotrione	5 oz/a		A	PRE				
13	Cinch ATZ	3 pt/a		A	PRE				

Trt	Treatment	Other	Other	Appl	Appl					
No.	Name	Rate	Rate	Unit	Code	Description	31	32	33	34
	14	Corvus	5.6	oz/a	A	PRE	43.1 abc	17.8 a	217.1 ab	57.4 a
	14	Atrazine	1.5	qt/a	A	PRE				
	15	Anthem ATZ	32	oz/a	A	PRE	34.5 d	18.1 a	173.6 d	58.0 a
	16	UTC					27.4 e	17.6 a	138.4 e	58.3 a
	LSD	P=.05					5.38	1.20	26.08	1.00
		Standard Deviation					3.78	0.84	18.31	0.70
		CV					8.76	4.71	8.43	1.21
		Grand Mean					43.14	17.85	217.35	57.98
		Bartlett's X2					16.628	6.164	20.134	7.169
		P(Bartlett's X2)					0.342	0.977	0.167	0.953
		Skewness					-1.5509*	0.0657	-1.6775*	-0.3233
		Kurtosis					2.5033*	-0.9321	2.8532*	-0.189
		Replicate F					9.803	9.474	8.555	4.712
		Replicate Prob(F)					0.0001	0.0001	0.0001	0.0061
		Treatment F					8.252	0.536	8.876	0.775
		Treatment Prob(F)					0.0001	0.9059	0.0001	0.6969

Crop Code

ZEAMX, BCOR, Zea mays, = US

Rating Type

YIELD = yield

MOICON = moisture content

WEITES = weight - test

Rating Unit

% = percent

BU = bushel

PLOT = total plot

A = acre

Plant-Eval Interval

151 DP-1 = 1 ZEAMX 5-3-2015

ARM Action CodesTY1 =  $5.185714 * [31] * (100 - [32]) / 84.5$