

Company Showcase Corn Herbicide Programs

Trial ID: 15LATESHHOW Location: Western Branch G-6 Trial Year: 2015
 Protocol ID: 15CORNSHOW Investigator: Dr. Mark M. Loux
 Project ID: Study Director: Anthony Dobbels
 Sponsor Contact: Dain Bruns, Syngenta

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 °: 39.58931 N
Longitude of LL Corner °: -83.675885 W
Altitude of LL Corner, Unit: 1096.00 FT

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

Soil Temperature, Unit: 63 F
Soil Moisture: NORMAL normal, adequate
Seed Bed: MEDIUM medium

Planting Date: 5-14-2015
Planting Method: PLANTD planted
Planting Equipment: FPP Finger Pickup Planter
Emergence Date: 5-21-2015
Harvest Date: 10-5-2015
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

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

Site and Design

Treated Plot Width: 10 FT
Treated Plot Length: 30 FT
Treated Plot Area: 300 FT² **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)

Trial Initiation Comments:

No. Previous Crop Year
 1. Soybean 2014

Soil Description

Description Name: G-6

% OM: 2.2 Texture: SICL silty clay loam
pH: 6.3 Soil Name: Crosby
CEC: 13.6 Fert. Level: G good
Soil Drainage: G good

Application Description

Application Date: 5-15-2015 6-11-2015 6-11-2015
Appl. Start Time: 9:00 AM 9:25AM 9:25AM
Appl. Stop Time: 9:30 AM 9:45 AM 9:45 AM
Application Method: SPRAY SPRAY SPRAY
Application Timing: PRE POST POST
Application Placement: BROSOI BROFOL BROFOL
Applied By: Reeb Barcl/Bethe Barcl/Bethe
Air Temperature, Unit: 63 F 79.4 F 79.4 F
% Relative Humidity: 75 53 53
Wind Velocity, Unit: 2 MPH 5.5 MPH 5.5 MPH
Wind Direction: E WSW WSW
Dew Presence (Y/N): N no N no N no
Soil Temperature, Unit: 59 F 68 F 68 F
Soil Moisture: DRY Good Good
% Cloud Cover: 80 5 5
Next Moisture Occurred On: 5-15-2015 6-12-2015 6-12-2015
Time to Next Moisture, Unit: 2 DAY 1 DAY 1 DAY

Crop Stage At Each Application

Crop 1 Code, BBCH Scale: ZEAMX BCOR ZEAMX BCOR ZEAMX BCOR
Stage Scale Used: BBCH BBCH
Stage Majority, Percent: 14 100 14 100
Height, Unit: 11 IN 11 IN
Height Minimum, Maximum: 10 12 10 12

Pest Stage At Each Application

Pest 1 Code, Type, Scale: SETFA W SETFA W SETFA W
Stage Majority, Percent: 12 100 16 100
Stage Minimum, Percent: 12 100 14 100
Stage Maximum, Percent: 12 100 18 100
Height, Unit: 2 IN 8 IN
Height Minimum, Maximum: 2 4 6 12
Density, Unit: 36 M2 129 M2
Pest 2 Code, Type, Scale: AMBTR W AMBTR W AMBTR W
Stage Majority, Percent: 14 100 16 100
Stage Minimum, Percent: 12 100 16 100
Stage Maximum, Percent: 14 100 18 100
Height, Unit: 3 IN 8 IN
Height Minimum, Maximum: 2 4 6 10
Density, Unit: 3 M2 5.33 M2
Pest 3 Code, Type, Scale: AMARE W AMARE W AMARE W
Stage Majority, Percent: 16 100
Stage Minimum, Percent: 16 100
Stage Maximum, Percent: 16 100
Height, Unit: 3 IN
Height Minimum, Maximum: 2 5
Density, Unit: 15.5 M2
Pest 4 Code, Type, Scale: CHEAL W CHEAL W CHEAL W
Stage Majority, Percent: 16 100 19 100
Stage Minimum, Percent: 16 100 19 100
Stage Maximum, Percent: 19 100 19 100
Height, Unit: 2 IN 7 IN
Height Minimum, Maximum: 1 3 6 8
Density, Unit: 5 M2 13.25 M2

Application Equipment

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

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Trt No.	Treatment Name	Other Rate	Other Rate	Unit	Appl Code	Appl Description	29	30	31	32
	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						10-5-2015	10-5-2015	10-5-2015	10-5-2015
	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 Applic.						143 116	143 116	143 116	143 116
	Trt-Eval Interval									
	Plant-Eval Interval						144 DP-1	144 DP-1	144 DP-1	144 DP-1
	Days After Emergence						137 DE-1	137 DE-1	137 DE-1	137 DE-1
	ARM Action Codes								TY1	
	Number of Decimals						1	1	1	1
1	Keystone NXT	2.5 qt/a			A	PRE	47.7 abc	21.2 a-e	230.9 a-d	54.9 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	49.8 ab	18.5 g	248.9 a	56.3 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	48.9 ab	19.9 d-g	240.6 ab	56.4 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	48.4 ab	20.4 c-f	236.6 abc	56.2 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	46.7 abc	20.0 d-g	229.4 a-d	55.7 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			C	POST	45.8 bc	22.3 ab	218.2 cd	55.8 a
6	NIS	4.8 oz/a			C	POST				
6	N PAK AMS	1.5 qt/a			C	POST				
7	Acuron	2 qt/a			A	PRE	50.7 a	20.7 b-f	246.6 a	55.6 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.
 Missing data estimates are included in columns: Yates=29,30,31,32

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	29	30	31	32
8	Bicep II Magnum	1.5 qt/a		A	PRE	48.2 ab	20.5 c-f	235.2 a-d	56.0 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 bc	20.5 c-f	222.9 bcd	55.9 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					46.8 abc	19.6 efg	231.0 a-d	55.8 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	46.6 abc	21.3 a-d	224.9 bcd	55.3 a
11	Revulin 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					49.6 ab	20.6 c-f	241.4 ab	56.1 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					43.5 c	19.5 fg	214.8 d	55.3 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	29	30	31	32
	14 Bicep II Magnum	1 qt/a		A	PRE		45.5 bc	19.7 d-g	224.4 bcd	55.6 a
	14 Yukon	4 oz/a		B	POST					
	14 Roundup PowerMax	22 oz/a		B	POST					
	14 NIS	2.4 oz/a		B	POST					
	14 N PAK AMS	3 qt/a		B	POST					
	15 Anthem ATZ	32 oz/a		A	PRE		49.4 ab	21.8 abc	236.7 abc	55.4 a
	15 Roundup PowerMax	22 oz/a		B	POST					
	15 N PAK AMS	3 qt/a		B	POST					
	16 UTC						29.3 d	22.7 a	138.9 e	55.0 a
	LSD P=.05						4.44	1.65	21.03	1.04
	Standard Deviation						3.11	1.16	14.76	0.73
	CV						6.71	5.63	6.52	1.31
	Grand Mean						46.41	20.57	226.34	55.70
	Bartlett's X2						18.044	12.133	21.494	6.252
	P(Bartlett's X2)						0.26	0.669	0.122	0.975
	Skewness						-2.1739*	0.6536*	-2.2832*	-0.1319
	Kurtosis						7.2399*	0.3704	7.7516*	-0.092
	Replicate F						3.290	1.269	2.952	3.179
	Replicate Prob(F)						0.0292	0.2967	0.0429	0.0331
	Treatment F						10.139	3.620	11.697	1.559
	Treatment Prob(F)						0.0001	0.0004	0.0001	0.1260

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

144 DP-1 = 1 ZEAMX 5-14-2015

ARM Action CodesTY1 = $5.185714 * [29] * (100 - [30]) / 84.5$