

Stimulate Corn Trial
 Trial ID: 19GARRCORN_2 Location: Western Branch Big E Trial Year: 2019
 Protocol ID: 19GARRCORN Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

General Trial Information

Investigator: Dr. Mark M. Loux

Trial Status: E established

ARM Trial Created On: May-17-2019

Trial Location

City: South Charleston **Country:** USA United States
State/Prov.: Ohio
Postal Code: 45368 **Climate Zone:** USWARM US Warm Continental

Conducted Under GLP: No
Conducted Under GEP: No

Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: C ZEAMX Zea mays Corn **BBCH Scale:** BCOR
Entry Date: May-17-2019
Variety: DKC62-52RIB
Attributes: SMARTSTAX RIB COMPLETE
Planting Date: May-16-2019 **Planting Rate:** 32097 S/A
Depth: 1.5 IN
Rows per Plot: 4 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** PP plot planter
Seed Bed: SMOOTH smooth
Soil Temperature: 65 F **Soil Moisture:** DRY dry
Emergence Date: May-30-2019
Harvested Width: 5 FT
Harvested Length: 30 FT
% Standard Moisture: 15.5

Pest Description

Pest 1 Type: W **Code:** SETFA *Setaria faberi*
Common Name: Giant foxtail **Entry Date:** Jun-21-2019
Pest 2 Type: W **Code:** IPOHE *Ipomoea hederacea*
Common Name: ivy-leaf morning glory **Entry Date:** Jun-21-2019
Pest 3 Type: W **Code:** PORSS *Portulaca sp.*
Common Name: Purslane **Entry Date:** Jun-21-2019

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300 FT2 **Treatments:** 6 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

Previous

No. Crop Year
 1. SOYBEAN 2018

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	Jun-3-2019	HERB	Halex GT	4.38	LBA/GAL	CS	3.6	PT/100 GAL
2.	Jun-3-2019	HERB	Atrazine	4	LBA/GAL	F	1	PT/100 GAL
3.	Jun-3-2019	HERB	NIS				0.25	% V/V
4.	Jun-3-2019	HERB	AMS				2.5	% V/V

Soil Description

Description Name: Big E
% Sand: 45 **% OM:** 3.1 **Texture:** L loam
% Silt: 45 **pH:** 6.6 **Soil Name:** Kokomo
% Clay: 11 **CEC:** 15.2 **Fert. Level:** G good
Soil Drainage: G good

Application Description

	A	B
Application Date	May-16-2019	Jun-21-2019
Appl. Start Time	8:30 PM	9:40 AM
Appl. Stop Time	9:00 PM	10:15 AM
Application Method	BROADC	BROADC
Application Timing	PREPRE	POST
Application Placement	BROFOL	BROFOL
Applied By	LOUX	KILEY/LAMB
Appl. Entry Date	May-17-2019	Jun-21-2019
Air Temperature Start, Stop	74 74 F	64 64 F
% Relative Humidity Start, Stop	45 45	78 78
Wind Velocity+Dir. Start	12 MPH SSW 8	8 MPH NNW
Wind Velocity+Dir. Stop	12 MPH SSW 8	8 MPH NNW
Wind Velocity+Dir. Max	12 MPH SSW 8	8 MPH NNW
Wet Leaves (Y/N)	N no	N no
Soil Temperature	65 F	63 F
Soil Moisture	DRY	DAMP
Soil Surface Condition	SMOOTH	SMOOTH
% Cloud Cover	80	20
Next Moisture Occurred On	May-17-2019	Jun-23-2019
Time to Next Moisture	3 HR	2 DAY
Moisture 6 Hours after Appl.	0.32 IN	0 IN
Moisture 1 Week after Appl.	2.54 IN	1.21 IN

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ZEAMX BCOR	ZEAMX BCOR
Days after Emergence	-14	22
Stage Majority, Percent		V5
Stage Minimum, Percent		V4
Stage Maximum, Percent		V6
Height Average		24 IN
Height Minimum, Maximum		22 26

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	SETFA W	SETFA W
Stage Majority, Percent		13 100
Height Average		3 IN
Height Minimum, Maximum		3 6
Pest 2 Code, Type, Scale	IPOHE W	IPOHE W
Height Average		1.5 IN
Height Minimum, Maximum		1 1.5
Pest 3 Code, Type, Scale	PORSS W	PORSS W
Height Average		1.5 IN
Height Minimum, Maximum		1 1.5

Application Equipment

	A	B
Appl. Equipment	10' AI XR	10' AI XR
Equipment Type	SPRBAC	SPRBAC
Operation Pressure	42 PSI	42 PSI
Nozzle Type	AI XR	AI XR
Nozzle Size	110015	110015
Nozzle Spacing	18 IN	18 IN
Boom Length	10 FT	10 FT
Boom Height	20 IN	20 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GPA	15 GPA
Mix Size	2 Liters	2 Liters
Propellant	COMCO2	COMCO2

Context	Date	By	Notes
STATUS	May-16-2019	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	May-17-2019	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

SE Definitions

- Crop Type, Code C**

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Crop Type, Code	C ZEAMX	C ZEAMX	C ZEAMX	C ZEAMX
Crop Name	Corn	Corn	Corn	Corn
Rating Date	Oct-9-2019	Oct-9-2019	Oct-9-2019	Oct-9-2019
Rating Type	weight	moicon	YIELD	weites
Rating Unit	lbs	%	BU	lbs
Number of Subsamples	1	1	1	1
Data Entry Date	Oct-10-2019	Oct-10-2019	Oct-10-2019	Oct-10-2019
Days After First/Last Applic.	146 110	146 110	146 110	146 110
Trt-Eval Interval				
Days After Emergence	132 DE-1	132 DE-1	132 DE-1	132 DE-1
ARM Action Codes			TY1	
Number of Decimals	2	2	1	2

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	5*	6*	7*	8*
1	UTC					44.23 -	16.84 -	225.6 -	56.27 a
2	Liberty	0.585 lb ai/a	32 oz/a		B	48.52 -	18.13 -	243.7 -	54.95 b
2	N Pak AMS	2.5 % v/v	2.5 % v/v		B				
3	Liberty	0.585 lb ai/a	32 oz/a		B	45.23 -	16.54 -	231.5 -	56.56 a
3	Stimulate	8 oz/a	8 oz/a		B				
3	N Pak AMS	2.5 % v/v	2.5 % v/v		B				
4	Roundup Powermax	1.13 lb ae/a	32 oz/a		B	43.62 -	17.43 -	220.2 -	55.96 a
4	N Pak AMS	2.5 % v/v	2.5 % v/v		B				
5	Roundup Powermax	1.13 lb ai/a	32 oz/a		B	46.06 -	17.09 -	234.1 -	53.95 c
5	Stimulate	8 oz/a	8 oz/a		B				
5	N Pak AMS	2.5 % v/v	2.5 % v/v		B				
6	Stimulate	16 oz/a	16 oz/a		A	42.24 -	17.23 -	213.6 -	55.74 ab
LSD P=.05						5.499	1.169	25.84	0.896
Standard Deviation						3.648	0.776	17.14	0.595
CV						8.11	4.51	7.51	1.07
Grand Mean						44.985	17.209	228.12	55.569
Levene's F						4.094	4.106	3.65	0.669
Levene's Prob(F)						0.012*	0.012*	0.019*	0.652
Skewness						-0.8567	0.1675	-1.0023*	-0.2834
Kurtosis						-0.3417	-1.1929	0.043	-0.9192
Replicate F						10.655	21.418	8.836	13.575
Replicate Prob(F)						0.0005	0.0001	0.0013	0.0002
Treatment F						1.423	1.992	1.550	10.529
Treatment Prob(F)						0.2721	0.1383	0.2337	0.0002

Crop Type, Code

C = EPP0 species (Bayer) codes
ZEAMX, BCOR, Zea mays, Corn = US

Rating Type

moicon = moisture content
YIELD = yield
weites = weight - test

Rating Unit

% = percent
BU = bushel

ARM Action Codes

TY1 = 5.185714*[5]*(100-[6])/84.5

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
* Adjusted means