

Stimulate Soybean Trial  
 Trial ID: 19GARRSOY      Location:      Trial Year: 2019  
 Protocol ID: 19GARRSOY      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:** Mar-28-2019

**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 °:** 39.86082      N  
**Longitude of LL Corner °:** 8.067047      W  
**Altitude of LL Corner:** 1134.00 Ft

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

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

**Crop Description**

**Crop 1:** C      GLXMA Glycine max      Soybean  
**Entry Date:** May-21-2019      **Stage Scale:** VR  
**Variety:** Seed Consultants EX932E  
**Attributes:** Enlist E3, RR, LL, 2,4-D  
**Planting Date:** May-16-2019      **Planting Rate:** 165000      S/A  
**Depth:** 1.5      IN  
**Rows per Plot:** 8      **Planting Method:** PLANTD planted  
**Row Spacing:** 15      IN      **Planting Equipment:** PP      plot planter  
    **Seed Bed:** MEDIUM medium  
**Soil Temperature:** 65      F      **Soil Moisture:** DRY      dry  
**Emergence Date:** May-27-2019  
**Harvested Width:** 6.25 FT  
**Harvested Length:** 30      FT

**% Standard Moisture:** 13

**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 FT<sup>2</sup>      **Treatments:** 6      **Tillage Type:** CONTIL      conventional-till  
**Replications:** 4      **Study Design:** RACOB      Randomized Complete Block (RCB)

**Previous**

**No.      Crop      Year**  
 1.      CORN      2018

**Maintenance**

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit
1.	Jun-3-2019	HERB	Prefix	5.29	LB/GAL	L	3	PT/100 GAL
2.	Jun-3-2019	HERB	Scepter	1.5	LBA/GAL	WS	2.8	OZ A/100 GAL
3.	Jun-3-2019	HERB	Roundup Powermax	4.5	LBAE/GAL	SL	32	OZ A/100 GAL

**Soil Description**

**Description Name:** F-7 East  
**% Sand:** 37      **% OM:** 2.8      **Texture:** SICL silty clay loam  
**% Silt:** 49      **pH:** 5.7      **Soil Name:** Crosby  
**% Clay:** 15      **CEC:** 11.8      **Fert. Level:** G good  
**Soil Drainage:** G      good

Application Description

	A	B
Application Date	May-16-2019	Jun-28-2019
Appl. Start Time	4:30 PM	9:40 AM
Application Method	SPRAY	SPRAY
Application Timing	PRE	POST
Application Placement	BROFOL	BROFOL
Applied By	DOBBELS	DOBBELS
Appl. Entry Date	Jun-28-2019	Jun-28-2019
Air Temperature Start, Stop	74 74 F	78 78 F
% Relative Humidity Start, Stop	48 48	77 77
Wind Velocity+Dir. Start	12 MPH SSW	7 MPH SW
Wind Velocity+Dir. Stop	12 MPH SSW	7 MPH SW
Wind Velocity+Dir. Max	12 MPH SSW	7 MPH SW
Wet Leaves (Y/N)	N no	N no
Soil Temperature	64 F	69 F
Soil Moisture	DRY	WET
Soil Surface Condition	SMOOTH	SMOOTH
% Cloud Cover	90	5

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA BSOY	GLXMA BSOY
Days after Emergence	-11	32
Stage Majority, Percent		V6 90
Stage Minimum, Percent		V3 5
Stage Maximum, Percent		V7 5

Pest Stage At Each Application

	B
Stage Majority, Percent	V6 90
Stage Minimum, Percent	V5 10
Stage Maximum, Percent	V6 90
Height Average	8 IN
Height Minimum, Maximum	6 9

Application Equipment

	A	B
Appl. Equipment	10' TTI	10' TTI
Equipment Type	SPRBAC	SPRBAC
Operation Pressure	40 PSI	40 PSI
Nozzle Type	TTI	TTI
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	3 GAL	3 GAL
Propellant	CO2	CO2

Context	Date	By	Notes
STATUS	Mar-28-2019	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-3-2019	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Date entered.

SE Definitions

Crop Type, Code	1.			
Crop Type, Code	C	GLXMA	C	GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean
Rating Date	Oct-2-2019	Oct-2-2019	Oct-2-2019	Oct-2-2019
Rating Type	WEIGHT	MOICON	YIELD	WIETES
Rating Unit	LBS	%	BU	LBS
Number of Subsamples	1	1	1	1
Data Entry Date	Oct-4-2019	Oct-4-2019	Oct-4-2019	Oct-4-2019
Days After First/Last Applic.	139 96	139 96	139 96	139 96
Days After Emergence	128 DE-1	128 DE-1	128 DE-1	128 DE-1
ARM Action Codes			TY1	
Number of Decimals	2	2	1	2
Trt Treatment No. Name	Rate	Other	Other	Appl
	Rate Unit	Rate	Rate Unit	Code
				5* 6* 7* 8*

1 UTC 18.61 - 11.10 - 73.6 - 56.82 -

The Ohio State University

Crop Type, Code	C	GLXMA	C	GLXMA	C	GLXMA	C	GLXMA
Crop Name	Soybean		Soybean		Soybean		Soybean	
Rating Date	Oct-2-2019		Oct-2-2019		Oct-2-2019		Oct-2-2019	
Rating Type	WEIGHT		MOICON		YIELD		WIETES	
Rating Unit	LBS		%		BU		LBS	
Number of Subsamples	1		1		1		1	
Data Entry Date	Oct-4-2019		Oct-4-2019		Oct-4-2019		Oct-4-2019	
Days After First/Last Applic.	139 96		139 96		139 96		139 96	
Days After Emergence	128 DE-1		128 DE-1		128 DE-1		128 DE-1	
ARM Action Codes					TY1			
Number of Decimals	2		2		1		2	

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	5*	6*	7*	8*
2	Liberty	0.585 lb ai/a		32 oz/a		B	18.74 -	11.21 -	74.1 -	56.97 -
2	N Pak AMS	2.5 % v/v		2.5 % v/v		B				
3	Liberty	0.585 lb ai/a		32 oz/a		B	18.82 -	11.19 -	74.4 -	57.03 -
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	19.24 -	11.09 -	76.1 -	56.89 -
4	N Pak AMS	2.5 % v/v		2.5 % v/v		B				
5	Roundup Powermax	1.13 lb ae/a		32 oz/a		B	18.05 -	11.13 -	71.4 -	57.51 -
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	18.39 -	11.24 -	72.6 -	56.85 -
LSD P=.05							0.843	0.272	3.41	0.781
Standard Deviation							0.559	0.181	2.26	0.518
CV							3.0	1.62	3.07	0.91
Grand Mean							18.640	11.160	73.70	57.012
Levene's F							0.967	1.56	0.948	1.091
Levene's Prob(F)							0.464	0.222	0.474	0.399
Skewness							0.9414	0.7255	0.9271	-0.6625
Kurtosis							0.8014	1.1754	0.8151	0.119
Replicate F							8.210	0.446	7.587	3.142
Replicate Prob(F)							0.0018	0.7240	0.0026	0.0565
Treatment F							2.095	0.464	2.039	0.961
Treatment Prob(F)							0.1226	0.7971	0.1309	0.4718

Crop Type, Code

C = EPPO species (Bayer) codes  
GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

WEIGHT = weight  
MOICON = moisture content  
YIELD = yield

Rating Unit

% = percent  
BU = bushel

ARM Action Codes

TY1 = 3.872\*[5]\*(100-[6])/87