

19 Soy cover

Trial ID: 19 Soy cover  
Protocol ID: 19 Soy cover  
Project ID:

Location:  
Investigator: Alyssa Lamb  
Study Director:  
Sponsor Contact:

Trial Year: 2019

**General Trial Information**

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

**Trial Status:** E established

**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 °:** 39.85886 N  
**Longitude of LL Corner °:** 83.67331 W  
**Altitude of LL Corner:** 1106.00 ft

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

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

**Crop Description**

**Crop 1:** C GLXMA Glycine max Soybean **BBCH Scale:** BSOY  
**Variety:** PIONEER 34A24X  
**Planting Date:** May-16-2019 **Planting Rate:** 165000 S/A  
**Depth:** 1.5 IN  
**Row Spacing:** 15 IN **Planting Method:** SEEDED seeded  
**Planting Equipment:** PP plot planter  
**Seed Bed:** CLODDY cloddy  
**Soil Moisture:** GOOD good

**Crop 2:** C SECCW Secale cereale Winter rye **BBCH Scale:** BCER  
**Attributes:** Monoculture - trt 1 & 2  
**Planting Date:** Oct-8-2018  
**Depth:** 1.5 IN  
**Emergence Date:** Oct-18-2018  
**Planting Method:** DRILLE drilled  
**Planting Equipment:** PP plot planter

**Crop 3:** C SECCW Secale cereale Winter rye **BBCH Scale:** BCER  
**Attributes:** Mis - trts 3-6  
**Planting Date:** Oct-8-2018  
**Depth:** 0.25 IN  
**Emergence Date:** Oct-18-2018  
**Planting Method:** DRILLE drilled  
**Planting Equipment:** PP plot planter

**Crop 4:** C MIXES Cover crop mixes Clover, Vetch, Radish  
**Planting Date:** Oct-8-2018  
**Depth:** 0.25 IN  
**Row Spacing:** 7.4 IN  
**Emergence Date:** Oct-18-2018  
**Planting Method:** DRILLE drilled  
**Planting Equipment:** PP plot planter

**Site and Design**

**Treated Plot Width:** 10 FT  
**Treated Plot Length:** 30 FT  
**Treated Plot Area:** 300 FT2 **Treatments:** 14  
**Replications:** 4 **Study Design:** SPLPLO Split-Plot

**Maintenance**

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Registration Type	Rate Number	Rate Unit	Tank Mix Code	Tank Mix
1.	Jul-15-2019	HERB	Roundup Powermax	4.5	LBAE/GAL	SL	524-549	32 oz/a	Y	yes
2.	Jul-15-2019	HERB	Xtendimax	2.9	LBAE/GAL	L		22 oz/a	Y	yes
3.	Jul-15-2019	ADJ	Intact	100	%	SG		0.5 % v/v	Y	yes
4.	Jul-15-2019	ADJ	Class Act Ridion	100	%	L		1 % v/v	Y	yes

**Application Description**

**A**

**Application Date** Apr-24-2019  
**Appl. Start Time** 9:15 AM  
**Appl. Stop Time** 9:45 AM  
**Application Method** SPRAY  
**Application Timing** 7 EPP  
**Application Placement** BROFOL  
**Applied By** Loux  
**Air Temperature Start, Stop** 53 53 F  
**% Relative Humidity Start, Stop** 68 68  
**Wind Velocity+Dir. Start** 2 MPH SSE  
**Wind Velocity+Dir. Stop** 2 MPH SSE  
**Wind Velocity+Dir. Max** 2 MPH SSE  
**Wet Leaves (Y/N)** N no  
**Soil Temperature** 50 F  
**Soil Moisture** NORMAL  
**Soil Surface Condition** DRY  
**% Cloud Cover** 98

**Crop Stage At Each Application**

**A**

**Crop 1 Code, BBCH Scale** GLXMA BSOY  
**Crop 2 Code, BBCH Scale** SECCW BCER  
**Days after Emergence** 188  
**Crop 3 Code, BBCH Scale** SECCW BCER  
**Days after Emergence** 188  
**Crop 4 Code, BBCH Scale** MIXES  
**Days after Emergence** 188

**Application Equipment**

**A**

**Appl. Equipment** 10' TTI  
**Equipment Type** SPRBAC  
**Operation Pressure** 40 PSI  
**Nozzle Type** TTI  
**Nozzle Size** 110015  
**Nozzle Spacing** 18 IN  
**Boom Length** 10 FT  
**Boom Height** 20 IN  
**Boom Flow Rate** IN  
**Ground Speed** 3 MPH  
**Carrier** WATER  
**Application Amount** 15 GPA  
**Mix Size** 3 GAL  
**Propellant** CO2

Date	By	Notes
Jan-15-2019	Alyssa Lamb	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
Jan-15-2019	Alyssa Lamb	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

**SE Definitions**

**1.**

**Crop Type, Code C**

Crop Type, Code	C	GLXMA	C	GLXMA	C	GLXMA	C	GLXMA
BBCH Scale		BSOY		BSOY		BSOY		BSOY
Crop Scientific Name		Glycine		Glycine		Glycine		Glycine
		max		max		max		max
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		WEITES
Rating Unit		LBS		%		BU/ACRE		LBS
Number of Subsamples		1		1		1		1
Days After First/Last Applic.		161 161		161 161		161 161		161 161
Trt-Eval Interval		161 DA-A		161 DA-A		161 DA-A		161 DA-A
Plant-Eval Interval		139 DP-1		139 DP-1		139 DP-1		139 DP-1
Number of Decimals		2		2		1		2

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Trt Treatment	1*	2*	3*	4*
No. Name				
1 90 lbs rye	20.77 -	12.21 -	81.2 -	55.83 -
1 Spring residual - Valor XLT				
2 90 lbs rye	20.29 -	12.15 -	79.3 -	55.89 -
2 No spring residual				

Crop Type, Code	C	GLXMA	C	GLXMA	C	GLXMA	C	GLXMA
B BCH Scale		BSOY		BSOY		BSOY		BSOY
Crop Scientific Name		Glycine		Glycine		Glycine		Glycine
		max		max		max		max
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		WEITES
Rating Unit		LBS		%		BU/ACRE		LBS
Number of Subsamples		1		1		1		1
Days After First/Last Applic.		161	161	161	161	161	161	161
Trt-Eval Interval		161 DA-A		161 DA-A		161 DA-A		161 DA-A
Plant-Eval Interval		139 DP-1		139 DP-1		139 DP-1		139 DP-1
Number of Decimals		2		2		1		2
Trt Treatment								
No. Name		1*		2*		3*		4*
3 45 lbs rye		19.97 -		12.28 -		78.0 -		56.33 -
3 Spring residual - Valor XLT								
4 45 lbs rye		21.32 -		12.18 -		83.3 -		56.29 -
4 No spring residual								
5 45 lbs rye + 12 lbs clover		19.94 -		12.45 -		77.7 -		56.22 -
5 Spring residual - Valor XLT								
6 45 lbs rye + 12 lbs clover		20.19 -		12.37 -		78.7 -		56.49 -
6 No spring residual								
7 45 lbs rye + 6 lbs clover		20.25 -		12.43 -		78.9 -		56.28 -
7 Spring residual - Valor XLT								
8 45 lbs rye + 6 lbs clover		21.03 -		12.40 -		82.0 -		56.79 -
8 No spring residual								
9 45 lbs rye + 13 lbs vetch		20.91 -		12.33 -		81.6 -		55.90 -
9 Spring residual - Valor XLT								
10 45 lbs rye + 13 lbs vetch		21.86 -		12.03 -		85.6 -		55.69 -
10 No spring residual								
11 45 lbs rye + 7 lbs vetch		20.06 -		12.36 -		78.2 -		56.04 -
11 Spring residual - Valor XLT								
12 45 lbs rye + 7 lbs vetch		20.67 -		12.23 -		80.7 -		56.11 -
12 No spring residual								
13 No cover		19.57 -		12.48 -		76.2 -		56.05 -
13 Spring residual - Valor XLT								
14 No cover		21.25 -		12.34 -		82.9 -		56.04 -
14 No spring residual								
LSD P=.05		1.530		0.264		6.06		0.695
Standard Deviation		1.070		0.184		4.24		0.486
CV		5.2		1.5		5.28		0.87
Grand Mean		20.577		12.301		80.32		56.141
Levene's F		1.207		0.434		1.19		0.448
Levene's Prob(F)		0.308		0.948		0.32		0.941
Skewness		-0.5237		-0.5125		-0.4816		-0.1234
Kurtosis		0.2132		0.7667		0.1723		-0.3555
Analyzed as		RCB		RCB		RCB		RCB
Replicate F		5.241		6.758		5.346		1.121
Replicate Prob(F)		0.0039		0.0009		0.0035		0.3524
Treatment F		1.455		1.912		1.501		1.406
Treatment Prob(F)		0.1790		0.0592		0.1609		0.2002

Crop Type, Code

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

Rating Type

WEIGHT = weight  
 MOICON = moisture content  
 YIELD = yield  
 WEITES = weight - test

Rating Unit

% = percent

Plant-Eval Interval

139 DP-1 = 1 GLXMA May-16-2019