

The Ohio State University

Green plant

Trial ID: 21 Green plant Location: OARDC WARS Trial Year: 2021
 Protocol ID: 21 Green plant Investigator (Creator): Alyssa Lamb
 Project ID: Study Director:
 Sponsor Contact:

General Trial Information

Investigator: Dr. Mark M. Loux

Trial Status: E established

ARM Trial Created On: Sep-14-2020

Trial Location

City: South Charleston Country: USA United States
 State/Prov.: Ohio
 Postal Code: 45368

Latitude of LL Corner °: 39.85931 N
 Longitude of LL Corner °: -83.67426 W
 Altitude of LL Corner: 1020.00 FT

Conducted Under GLP: No

Conducted Under GEP: No

Role: INVEST investigator

Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: C SECCE Secale cereale Rye
 Entry Date: Oct-14-2019 Stage Scale: BBCH
 Variety: Hazlet Rye; Heartland Seed LLC
 Planting Date: Nov-4-2020
 Depth: 1 IN
 Row Spacing: 7.5 IN
 Planting Method: DRILLE drilled
 % Standard Moisture: 13
 Harvested Width: 6.25 FT
 Harvested Length: 30 FT

Crop 2: C GLXMA Glycine max Soybean
 Entry Date: May-12-2020 Stage Scale: BBCH

Pest Description

Pest 1 Type: W Code: SETFA Setaria faberi Entry Date: May-12-2020
 Common Name: Giant foxtail Stage Scale: BBCH

Pest 2 Type: W Code: AMBTR Ambrosia trifida Entry Date: May-12-2020
 Common Name: Giant ragweed Stage Scale: BBCH

Pest 3 Type: W Code: STEME Stellaria media Entry Date: May-12-2020
 Common Name: Common chickweed Stage Scale: BBCH

Pest 4 Type: W Code: SENGL Packera glabella Entry Date: May-12-2020
 Common Name: Cressleaf groundsel Stage Scale: BBCH

Pest 5 Type: W Code: CHEAL Chenopodium album Entry Date: May-12-2020
 Common Name: common lambsquarters Stage Scale: BBCH

Pest 6 Type: W Code: AMBEL Ambrosia artemisiifolia Entry Date: May-12-2020
 Common Name: Common ragweed Stage Scale: BBCH

Pest 7 Type: W Code: RANAB Ranunculus abortivus Entry Date: Apr-9-2021
 Common Name: Smallflower buttercup Stage Scale: BBCH

Pest 8 Type: W Code: LAMPU Lamium purpureum Entry Date: Apr-9-2021
 Common Name: Purple deadnettle Stage Scale: BBCH

Pest 9 Type: W Code: CARPE Cardamine pensylvanica Entry Date: Apr-9-2021
 Common Name: Pennsylvania bittercress Stage Scale: BBCH

Site and Design

Treated Plot Width: 10 FT
 Treated Plot Length: 30 FT
 Treated Plot Area: 300.0 FT² Treatments: 18
 Replications: 4 Study Design: SPLPLO Split-Plot

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Soil Description

Description Name: G-6
% Sand: 32 **% OM:** 2.2 **Texture:** SICL silty clay loam
% Silt: 53 **pH:** 5.9 **Soil Name:** Kokomo
% Clay: 15 **CEC:** 14 **Fert. Level:** G good
 g o o d

Application Description

	A	B	C	D	E
Application Date	Apr-6-2021			Jun-6-2021	Jun-24-2021
Appl. Start Time	12:15 PM			11:00 AM	9:00 AM
Appl. Stop Time	12:30 PM			11:30 AM	9:30 AM
Application Method	SPRAY			spray	spray
Application Timing	EARLY APRIL	PRE	7 DAPL	21 dapl	post
Application Placement	BROFOL	BROFOL	BROFOL	BROFOL	brofol
Applied By	Dobbels			Dobbels	Dobbels
Appl. Entry Date	Apr-9-2021			Jun-7-2021	Jun-25-2021
Air Temperature Start, Stop	71 72 F			83 84 F	69 73 F
% Relative Humidity Start, Stop	33 33			60 60	62 58
Wind Velocity+Dir. Start	9 MPH SW			5 MPH SSW	6 MPH SW
Wind Velocity+Dir. Stop	9 MPH SW			5 MPH SSW	6 MPH SW
Wind Velocity+Dir. Max	10 MPH SW			5 MPH SSW	6 MPH SW
Wet Leaves (Y/N)	N no			N no	Y yes
Soil Temperature	53 F			68 F	66 F
Soil Moisture	DRY			dry	dry
Soil Surface Condition	DRY			MEDIUM	MEDIUM
% Cloud Cover	15			70	25
Next Moisture Occurred On	Apr-8-2021			Jun-7-2021	
Time to Next Moisture	2.0 DAY			20.0 HR	
Moisture 6 Hours after Appl.	0 IN			0 IN	

Crop Stage At Each Application

	A	B	C	D	E
Crop 1 Code, BBCH Scale	SECCE	BCER	SECCE	BCER	SECCE
Stage Majority, Percent				69	100
Height Average				60	IN
Height Minimum, Maximum				48	70
Crop 2 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA
Stage Majority, Percent				13	90
Stage Minimum, Percent				12	10
Stage Maximum, Percent				13	90
Height Average				3	IN
Height Minimum, Maximum				2.5	3

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Pest Stage At Each Application

	A	B	C	D	E
Pest 1 Code, Type, Scale	SETFA W	BBCH SETFA W	BBCH SETFA W	BBCH SETFA W	BBCH SETFA W
Pest 2 Code, Type, Scale	AMBTR W	BBCH AMBTR W	BBCH AMBTR W	BBCH AMBTR W	BBCH AMBTR W
Stage Majority, Percent	8	100			
Height Average	0.25	IN			
Height Minimum, Maximum	0.25	0.3			
Pest 3 Code, Type, Scale	STEME W	BBCH STEME W	BBCH STEME W	BBCH STEME W	BBCH STEME W
Stage Majority, Percent	59	80			
Stage Minimum, Percent	50	20			
Stage Maximum, Percent	59	80			
Diameter Average	8	IN			
Diameter Minimum, Maximum	8	10			
Height Average	1	IN			
Height Minimum, Maximum	0.5	1			
Pest 4 Code, Type, Scale	SENGL W	BBCH SENGL W	BBCH SENGL W	BBCH SENGL W	BBCH SENGL W
Stage Majority, Percent	19	100			
Diameter Average	3	IN			
Diameter Minimum, Maximum	2	3			
Height Average	2	IN			
Height Minimum, Maximum	2	3			
Pest 5 Code, Type, Scale	CHEAL W	BBCH CHEAL W	BBCH CHEAL W	BBCH CHEAL W	BBCH CHEAL W
Pest 6 Code, Type, Scale	AMBEL W	BBCH AMBEL W	BBCH AMBEL W	BBCH AMBEL W	BBCH AMBEL W
Pest 7 Code, Type, Scale	RANAB W	BBCH RANAB W	BBCH RANAB W	BBCH RANAB W	BBCH RANAB W
Stage Majority, Percent	51	50			
Stage Minimum, Percent	51	50			
Stage Maximum, Percent	59	50			
Diameter Average	3	IN			
Diameter Minimum, Maximum	2	3			
Height Average	3	IN			
Height Minimum, Maximum	2	3			
Pest 8 Code, Type, Scale	LAMPU W	BBCH LAMPU W	BBCH LAMPU W	BBCH LAMPU W	BBCH LAMPU W
Stage Majority, Percent	59	85			
Stage Minimum, Percent	51	15			
Stage Maximum, Percent	59	85			
Diameter Average	6	IN			
Diameter Minimum, Maximum	4	6			
Height Average	3	IN			
Height Minimum, Maximum	2	4			
Pest 9 Code, Type, Scale	CARPE W	BBCH CARPE W	BBCH CARPE W	BBCH CARPE W	BBCH CARPE W
Stage Majority, Percent	59	100			
Diameter Average	2	IN			
Diameter Minimum, Maximum	1	2			
Height Average	3	IN			
Height Minimum, Maximum	2	3			

Notes

Context	Date	By	Notes
STATUS	Oct-8-2019	Alyssa Lamb	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Oct-14-2019	Alyssa Lamb	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

Crop Type, Code	C	GLXMA	C	GLXMA	C	GLXMA	C	GLXMA
Crop Name		Soybean		Soybean		Soybean		Soybean
Rating Date		Oct-1-2021		Oct-1-2021		Oct-1-2021		Oct-1-2021
Rating Type		WEIGHT		MOICON		YIELD		WIETES
Rating Unit/Min/Max	LBS	- - %	0	100 BU	- -	LBS	- -	
Number of Subsamples		1		1		1		1
Data Entry Date		Oct-4-2021		Oct-4-2021				Oct-4-2021
Days After First/Last Applic.		- 99		- 99		- 99		- 99
ARM Action Codes						TY1		
Number of Decimals		1		1		1		1

Trt No.	Treatment Name	Appl Code	1*	2*	3*	4*
1	90 lbs rye 1 week before plant With residual - Valor XLT		14.0 abc	13.1 -	54.3 a-d	53.2 -
2	90 lbs rye 1 week before plant No residual		16.2 ab	12.0 -	63.5 abc	54.0 -
3	90 lbs rye 1 week after plant With residual - Valor XLT	A	13.0 abc	11.3 -	51.2 a-d	45.6 -

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Crop Type, Code	C GLXMA	C GLXMA	C GLXMA	C GLXMA
Crop Name	Soybean	Soybean	Soybean	Soybean
Rating Date	Oct-1-2021	Oct-1-2021	Oct-1-2021	Oct-1-2021
Rating Type	WEIGHT	MOICON	YIELD	WIETES
Rating Unit/Min/Max	LBS - - %	0 100 BU	- - LBS	- -
Number of Subsamples	1	1	1	1
Data Entry Date	Oct-4-2021	Oct-4-2021		Oct-4-2021
Days After First/Last Applic.	- 99	- 99	- 99	- 99
ARM Action Codes			TY1	
Number of Decimals	1	1	1	1

Trt No.	Treatment Name	Appl Code	1*	2*	3*	4*
4	90 lbs rye 1 week after plant No residual	A	14.2 abc	11.5 -	56.1 a-d	52.6 -
5	90 lbs rye April sharpen, 21 days after With residual - Valor XLT		8.0 bc	12.1 -	31.1 cd	41.6 -
6	90 lbs rye April sharpen, 21 days after No residual		5.6 c	11.8 -	22.2 d	28.3 -
7	45 lbs rye 1 week before plant With residual - Valor XLT		16.0 ab	11.7 -	62.7 abc	53.5 -
8	45 lbs rye 1 week before plant No residual		16.3 ab	11.5 -	64.0 abc	54.2 -
9	45 lbs rye 1 week after plant With residual - Valor XLT	A	14.4 abc	12.0 -	56.6 a-d	51.1 -
10	45 lbs rye 1 week after plant No residual	A	11.9 abc	12.0 -	46.9 a-d	51.1 -
11	45 lbs rye April sharpen, 21 days after With residual - Valor XLT		10.5 abc	12.7 -	41.0 bcd	43.7 -
12	45 lbs rye April sharpen, 21 days after No residual		6.7 c	11.8 -	26.3 d	31.6 -
13	Fallow 1 week before plant With residual - Valor XLT		20.2 a	11.1 -	80.0 a	55.2 -
14	Fallow 1 week before plant No residual		18.6 a	11.1 -	73.8 ab	55.7 -
15	Fallow 1 week after plant With residual - Valor XLT	A	19.9 a	11.2 -	78.7 ab	55.5 -
16	Fallow 1 week after plant No residual	A	19.7 a	11.1 -	77.9 ab	55.1 -
17	Fallow April sharpen, 21 days after With residual - Valor XLT		18.3 a	11.7 -	71.8 ab	54.7 -
18	Fallow April sharpen, 21 days after No residual		18.5 a	12.6 -	72.1 ab	51.5 -
LSD P=.05			5.46	1.66	21.50	15.62
Standard Deviation			3.85	1.17	15.15	11.00
CV			26.42	9.91	26.46	22.29
Levene's F^			1.74	0.859	1.668	6.064
Levene's Prob(F)			0.063	0.621	0.079	0.00*
Skewness^			-0.3296	1.3028*	-0.3002	-0.3308
Kurtosis^			0.3671	4.5679*	0.3128	0.9457
Analyzed as			RCB	RCB	RCB	RCB
Replicate F			4.429	4.060	4.690	3.695
Replicate Prob(F)			0.0077	0.0116	0.0057	0.0175
Treatment F			5.575	0.982	5.652	2.214
Treatment Prob(F)			0.0001	0.4914	0.0001	0.0149

Crop Type, Code

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

Rating Type

WEIGHT = weight
MOICON = moisture content
YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent
BU, , = bushel

ARM Action Codes

TY1 = $3.872 * [1] * (100 - [2]) / 87$