

The Ohio State University

Green plant

Trial ID: 20 Green plant Location: OARDC WARS Trial Year: 2020
 Protocol ID: 20 Green plant Investigator: Alyssa Lamb
 Project ID: Study Director:
 Sponsor Contact:

General Trial Information

Investigator: Dr. Mark M. Loux

Trial Status: E established
 ARM Trial Created On: Oct-8-2019

Latitude of LL Corner °: 39.8572 N
 Longitude of LL Corner °: -83.66998 W
 Altitude of LL Corner: 1097.00 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
	Entry Date: May-11-2020	Stage Scale: BBCH	
	Variety: Asgrow AG37X0		
	Attributes: Glyphosate, Dicamba Tolerant		
	Planting Date: May-7-2020	Planting Rate: 1750000 S/A	
	Depth: 1.5 IN		
	Rows per Plot: 8	Planting Method: PLANTD planted	
	Row Spacing: 15 IN	Planting Equipment: FE field equipment	
		Seed Bed: MEDTRA medium/trashy	
	Soil Temperature: 60 F	Soil Moisture: SLIWET slightly wet, moist	
	Emergence Date: May-25-2020		
	Harvest Date: Oct-8-2020	Harvest Equipment: Kincaid 8XP	
	Moisture Meter: Harvest Master	Harvested Width: 6.25 FT	
	% Standard Moisture: 13.0	Harvested Length: 30 FT	
	Weighing Equipment: Harvest Master HM800		

Crop 2: C	SECCW Secale cereale	Winter rye	BBCH Scale: BCER
	Entry Date: May-11-2020	Stage Scale: BBCH	
	Variety: VNS		
	Planting Date: Oct-11-2019	Planting Rate: 90 LB/A	
	Depth: 1 IN		
	Rows per Plot: 15	Planting Method: DRILLE drilled	
	Row Spacing: 7.5 IN	Planting Equipment: FE field equipment	
		Seed Bed: MEDTRA medium/trashy	
		Soil Moisture: NORMAL normal, adequate	
	% Standard Moisture: 13	Harvested Width: 6.25 FT	
		Harvested Length: 30 FT	

Pest Description

Pest 1 Type: W Code: AMBTR Ambrosia trifida
 Common Name: ragweed, giant Entry Date: May-28-2020

Site and Design

Treated Plot Width: 10 FT
 Treated Plot Length: 30 FT
 Treated Plot Area: 300 FT² Treatments: 18
 Replications: 4 Study Design: SPLPLO Split-Plot

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Application Description

	A	B	C	D	E
Application Date	Apr-2-2020	May-1-2020	May-13-2020	May-27-2020	Jun-29-2020
Appl. Start Time	3:00 PM	3:00 PM	4:00 PM	1:00 PM	9:30 AM
Appl. Stop Time	3:30 PM		4:45 PM	1:30 PM	1:00 AM
Interval to Prev. Appl.		29 DAYS	12 DAYS	14 DAYS	33 DAYS
Application Method	SPRAY	SPRAY	Spray	SPRAY	SPRAY
Application Timing	Early April	7 EPP	After Plant	EPOST	POST
Application Placement	BROFOL	BROFOL	BROFOL	BROFOL	BROFOL
Applied By	Dobbels	Loux	Ackley	Essman	Dobbels
Appl. Entry Date	Apr-21-2020	May-11-2020	May-28-2020	May-28-2020	Jun-30-2020
Air Temperature Start, Stop	55 55 F	64 64 F	64 64 F	82 82 F	77 80 F
% Relative Humidity Start, Stop	50 50	40 40	32 32	51 51	81 75
Wind Velocity+Dir. Start	5 MPH NNW	6 MPH NW	10 MPH SE	9 MPH SE	3 MPH ESE
Wind Velocity+Dir. Stop	7 MPH NNW	6 MPH NW	10 MPH SE	9 MPH SE	3 MPH SE
Wind Velocity+Dir. Max	9 MPH NNW	6 MPH	11 MPH SE	9 MPH SE	3 MPH SE
Wet Leaves (Y/N)	N no	N no	N no	N no	N no
Soil Temperature	52 F	62 F	62 F	72 F	75 F
Soil Moisture	SLIWET	SLIWET	NORMAL	DRY	dry
Soil Surface Condition	MEDTRA	MEDTRA	MEDTRA	MEDTRA	MEDTRA
% Cloud Cover	0	10	25	50	50
Next Moisture Occurred On				May-28-2020	
Time to Next Moisture				16 HR	

Crop Stage At Each Application

	A		B		C		D		E	
Crop 1 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-53		-24		-12		2		35	
Stage Scale Used	BBCH		BBCH		BBCH		BBCH		BBCH	
Stage Majority, Percent							11	60		
Stage Minimum, Percent							08	20		
Stage Maximum, Percent							11	60		
Height Average							2	IN		
Height Minimum, Maximum							0.25	3		
Crop 2 Code, BBCH Scale	SECCW	BCER	SECCW	BCER	SECCW	BCER	SECCW	BCER	SECCW	BCER
Stage Scale Used	FEEKES		FEEKES		FEEKES		FEEKES		BBCH	
Stage Majority, Percent	3.0	100	8.0	80	10.3	80	10.51	80		
Stage Minimum, Percent			7	20	10.2	10	10.5	10		
Stage Maximum, Percent			8	80	10.4	10	10.52	10		
Height Average			20	in	22	IN	30			
Height Minimum, Maximum			18	24	18	24	26	36		

Pest Stage At Each Application

	A		B		C		D		E	
Pest 1 Code, Type, Scale	AMBTR	W	AMBTR	W	AMBTR	W	AMBTR	W	AMBTR	W
Stage Majority, Percent							12	90		
Stage Minimum, Percent							10	5		
Stage Maximum, Percent							14	5		
Height Average							3	IN		
Height Minimum, Maximum							2	6		

Application Equipment

	A	B	C	D	E
Appl. Equipment	10 Foot TTI	10 Foot TTI			
Equipment Type	BACCAI	BACCAI			
Operation Pressure	48 PSI	48 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 GAL/AC	15 GAL/AC			
Mix Size	3 GAL	3 GAL			
Propellant	COMCO2	COMCO2			

Context	Date	By	Notes
STATUS	Oct-8-2019	Alyssa Lamb	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Apr-21-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

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Crop Type, Code	C GLXMA	C GLXMA	C GLXMA
Crop Name	Soybean	Soybean	Soybean
Rating Date	Oct-8-2020	Oct-8-2020	Oct-8-2020
Rating Type	YIELD	MOICON	YIELD
Rating Unit	LBS	%	BU
Number of Subsamples	1	1	1
Data Entry Date	Oct-12-2020	Oct-12-2020	
Days After First/Last Applic.	189 101	189 101	189 101
Days After Emergence	136 DE-1	136 DE-1	136 DE-1
ARM Action Codes			TY1
Number of Decimals			1

Trt No.	Treatment Name	Appl Code	3*	4*	5*
1	90 lbs rye 1 week before plant With residual - Valor XLT	B	20.658 -	10.700 -	82.0 -
2	90 lbs rye 1 week before plant No residual	B	19.328 -	11.425 -	76.3 -
3	90 lbs rye 1 week after plant With residual - Valor XLT	C	20.003 -	11.413 -	78.8 -
4	90 lbs rye 1 week after plant No residual	C	19.858 -	10.800 -	78.9 -
5	90 lbs rye April Sharpen, 21 DAPL With residual - Valor XLT	AD	19.380 -	10.923 -	76.9 -
6	90 lbs rye April Sharpen, 21 DAPL No residual	AD	18.628 -	11.023 -	73.8 -
7	45 lbs rye 1 week before plant With residual - Valor XLT	B	20.068 -	10.275 -	80.1 -
8	45 lbs rye 1 week before plant No residual	B	19.355 -	10.910 -	76.8 -
9	45 lbs rye 1 week after plant With residual - Valor XLT	C	18.740 -	11.475 -	73.9 -
10	45 lbs rye 1 week after plant No residual	C	20.065 -	10.975 -	79.4 -
11	45 lbs rye April Sharpen, 21 DAPL With residual - Valor XLT	AD	19.430 -	10.775 -	77.1 -
12	45 lbs rye April Sharpen, 21 DAPL No residual	AD	18.103 -	11.500 -	71.3 -
13	Fallow 1 week before plant With residual - Valor XLT	B	20.713 -	10.650 -	82.3 -
14	Fallow 1 week before plant No residual	B	18.195 -	10.838 -	72.2 -
15	Fallow 1 week after plant With residual - Valor XLT	C	20.750 -	10.965 -	82.3 -
16	Fallow 1 week after plant No residual	C	20.133 -	10.498 -	80.2 -
17	Fallow April Sharpen, 21 DAPL With residual - Valor XLT	AD	17.633 -	11.575 -	69.4 -

Means followed by same letter or symbol do not significantly differ (P=0.05, LSD).

Mean separations are based on the complete error term.

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

* Adjusted means

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Crop Type, Code	C	GLXMA	C	GLXMA	C
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Rating Date	Oct-8-2020	Oct-8-2020	Oct-8-2020	Oct-8-2020	Oct-8-2020
Rating Type	YIELD	MOICON	YIELD	YIELD	YIELD
Rating Unit	LBS	%	BU	BU	BU
Number of Subsamples	1	1	1	1	1
Data Entry Date	Oct-12-202	Oct-12-202			
Days After First/Last Applic.	189	101	189	101	189
Days After Emergence	136	DE-1	136	DE-1	136
ARM Action Codes					TY1
Number of Decimals					1
Trt Treatment	Appl				
No. Name	Code	3*	4*	5*	
18 Fallow		16.483 -	11.350 -	65.1 -	
April Sharpen, 21 DAPL	AD				
No residual					
LSD P=.05		2.8075	0.7937	11.19	
Standard Deviation		1.9777	0.5591	7.88	
CV		10.24	5.08	10.3	
Grand Mean		19.3065	11.0038	76.48	
Levene's F		0.568	1.135	0.553	
Levene's Prob(F)		0.901	0.348	0.911	
Rank X2		.	.	.	
P(Rank X2)		.	.	.	
Skewness		-0.3958	0.1806	-0.4018	
Kurtosis		-0.9927	-0.9934	-0.9784	
Analyzed as		RCB	RCB	RCB	
Replicate F		34.933	0.539	34.307	
Replicate Prob(F)		0.0001	0.6580	0.0001	
Treatment F		1.370	1.809	1.465	
Treatment Prob(F)		0.1908	0.0528	0.1467	

Crop Type, Code

C = EPP0 species (Bayer) codes
 GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

YIELD = yield
 MOICON = moisture content

Rating Unit

% = percent
 BU = bushel

ARM Action Codes

TY1 = $3.872 * [3] * (100 - [4]) / 87$

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