The Ohio State University

A23372A: Crop Tolerance and Efficacy in Conventional Till Soybean (University - Medium Soils)

Trial ID: USNK0H4032021 Location: Bruns Dain FS Trial Year: 2021
Protocol ID: HSM050B4-2021US Investigator (Creator): Dain Bruns
Master Protocol ID: Study Director:
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

General Trial Information
Investigator: Dr. Mark M. Loux

Discipline: H herbicide
Trial Status: E established
Trial Status Date: May-17-2021 11:33 AM **Last Changed By:** Dr. Mark M. Loux
ARM Trial Created On: Apr-6-2021 **Trial Usage/Type:** 0 Research and Development
Initiation Date: May-19-2021
Protocol Revision Number: 1.0 **Protocol Revision Date:** Mar-17-2021

Trial Location
Address (Location): 7721 South Charleston Pike
City: South Charleston **Country:** USA United States
State/Prov.: Ohio OH
Postal Code: 45368

Latitude of LL Corner °: 39.85957 N
Longitude of LL Corner °: -83.67642 W USAOH 42.327132 - 38.403423
GPS Accuracy of LL Corner: 1090 FT -80.518705 - -84.820305

Conducted Under GLP: No
Conducted Under GEP: No

Objectives:
Does A23372A (premix) provide greater weed control and crop safety than current Syngenta or competitor residual herbicides in a weed management program in conventional till soybeans?

Conclusions:
Postemergence ratings may be a little less than normal due to a bad soybean stand as soybeans had pythium after irrigation and rainfall.

Role: INVEST investigator
Investigator: Dr. Mark M. Loux
Organization: The Ohio State University
Address 1: 202 Kottman Hall
Country: USA United States
City: Columbus **State/Prov:** OH **Postal Code:** 43210

Crop Description
Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-17-2021 **Crop Group:** 6 **Stage Scale:** BBCH
Variety: Seed Consultants
Attributes: 2,4-D Choline, Glyphosate, Glufosinate Tol
Seed Lot No: A3PGI348-00-1169
% Germination: 90

Planting Rate: 175000 S/A

Planting Date: May-19-2021
Depth: 1.5 IN
Rows per Plot: 8
Row Spacing: 15 IN

Planting Method: PLANTD planted
Planting Equipment: FE field equipment
Seed Bed: MEDIUM medium
Soil Moisture: NORMAL normal, adequate

Soil Temperature: 63 F
Emergence Date: Jun-7-2021

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Pest Description

Pest 1 Type: W **Code:** SETFA Setaria faberi **Entry Date:** Jun-21-2021
Common Name: Giant foxtail **Stage Scale:** BBCH

Pest 2 Type: W **Code:** ECHCG Echinochloa crus-galli **Entry Date:** Jun-21-2021
Common Name: Common barnyard grass **Stage Scale:** BBCH

Pest 3 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** Jun-21-2021
Common Name: Giant ragweed **Stage Scale:** BBCH

Pest 4 Type: W **Code:** CHEAL Chenopodium album **Entry Date:** Jun-21-2021
Common Name: common lambsquarters **Stage Scale:** BBCH

Pest 5 Type: W **Code:** POLPY Persicaria pensylvanica **Entry Date:** Jun-21-2021
Common Name: annual smartweed **Stage Scale:** BBCH

Pest 6 Type: W **Code:** ABUTH Abutilon theophrasti **Entry Date:** Jun-21-2021
Common Name: velvetleaf **Stage Scale:** BBCH

Pest 7 Type: W **Code:** IPOHE Ipomoea hederacea **Entry Date:** Jun-21-2021
Common Name: ivy-leaf morning glory **Stage Scale:** BBCH

Site and Design

Treated Plot Width: 6.67 FT **Total Plot Width:** 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Total Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 200.1 FT2 **Treatments:** 10 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block
Block Arrangement: BWRPSS blocks wrapped. plots side by side
Distance between Blocks: 5 FT

No.	Previous Crop	Year
1.	ZEAMX	2020

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
Soil Drainage: G good

Application Description

	A	B
Application Date	May-19-2021	Jun-15-2021
Appl. Start Time	2:00 PM	9:00 AM
Appl. Stop Time	2:43 PM	9:30 AM
Interval to Prev. Appl.		27 DAYS
Application Method	NONINC	NONINC
Application Timing	PREPRE	POSPOS
Application Placement	BROSOI	BROFOL
Applied By	Dobbels	Dobbels
Appl. Entry Date	May-25-2021	Jun-21-2021
Air Temperature Start, Stop	82 82 F	67 67 F
% Relative Humidity Start, Stop	39 39	72 72
Wind Velocity+Dir. Start	6.5 MPH SW	4 MPH SW
Wind Velocity+Dir. Stop	6.5 MPH SW	4 MPH SW
Wind Velocity+Dir. Max	7.7 MPH SSW	4 MPH SW
Wet Leaves (Y/N)	N no	N no
Soil Temperature	69 F	68 F
Soil Moisture	DRY	dry
% Cloud Cover	10	10
Next Moisture Occurred On	May-21-2021	Jun-18-2021
Time to Next Moisture	2.0 DAY	3.0 DAY
Moisture 1 Week after Appl.	1.05 IN	0.62 IN
Weather Source	WSFIELD	WSFIELD

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Crop Stage At Each Application

	A		B	
Crop 1 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY
Stage Scale Used	BBCH		BBCH	
Stage Majority, Percent	00	100	15	100
Stage Minimum, Percent			15	100
Stage Maximum, Percent			15	100
Height Average			5	IN
Height Minimum, Maximum			4	6

Pest Stage At Each Application

	A			B		
Pest 1 Code, Type, Scale	SETFA	W	BBCH	SETFA	W	BBCH
Stage Majority, Percent				14	80	
Stage Minimum, Percent				13	10	
Stage Maximum, Percent				15	10	
Height Average				6	IN	
Height Minimum, Maximum				6	8	
Density Average				380	PLA/m2	
Density Minimum, Maximum				272	624	
Pest 2 Code, Type, Scale	ECHCG	W	BBCH	ECHCG	W	BBCH
Stage Majority, Percent				14	80	
Stage Minimum, Percent				13	10	
Stage Maximum, Percent				15	10	
Height Average				6	IN	
Height Minimum, Maximum				6	8	
Density Average				276	PLA/m2	
Density Minimum, Maximum				104	416	
Pest 3 Code, Type, Scale	AMBTR	W	BBCH	AMBTR	W	BBCH
Stage Majority, Percent				18	80	
Stage Minimum, Percent				16	10	
Stage Maximum, Percent				19	10	
Height Average				12	IN	
Height Minimum, Maximum				8	12	
Density Average				30	PLA/m2	
Density Minimum, Maximum				4	32	
Pest 4 Code, Type, Scale	CHEAL	W	BBCH	CHEAL	W	BBCH
Stage Majority, Percent				16	80	
Stage Minimum, Percent				14	10	
Stage Maximum, Percent				19	10	
Height Average				2	IN	
Height Minimum, Maximum				2	3	
Density Average				27	PLA/m2	
Density Minimum, Maximum				12	35	
Pest 5 Code, Type, Scale	POLPY	W	BBCH	POLPY	W	BBCH
Stage Majority, Percent				16	80	
Stage Minimum, Percent				14	10	
Stage Maximum, Percent				19	10	
Height Average				4	IN	
Height Minimum, Maximum				3	4	
Density Average				3	PLA/m2	
Density Minimum, Maximum				0	5	
Pest 6 Code, Type, Scale	ABUTH	W	BBCH	ABUTH	W	BBCH
Stage Majority, Percent				14	80	
Stage Minimum, Percent				13	10	
Stage Maximum, Percent				16	10	
Height Average				4	IN	
Height Minimum, Maximum				3	4	
Density Average				2	PLA/m2	
Density Minimum, Maximum				1	5	
Pest 7 Code, Type, Scale	IPOHE	W	BBCH	IPOHE	W	BBCH
Stage Majority, Percent				16	80	
Stage Minimum, Percent				13	10	
Stage Maximum, Percent				18	10	
Height Average				6	IN	
Height Minimum, Maximum				6	8	
Density Average				2	PLA/m2	
Density Minimum, Maximum				0	4	

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Application Equipment

	A	B
Appl. Equipment	6' TTI	10' AIXR
Equipment Type	BACCAI	BACCAI
Operation Pressure	44 PSI	44 PSI
Nozzle Model	1110015	110015
Nozzle Type	TEEJAI	ARINDH
Nozzle TradeName	TeeJet	TeeJet
Nozzle Tip Size, Color	015 green	015 green
Nozzle Spacing	18 IN	18 IN
Nozzle Filter Mesh	100	100
Boom Length	6.67 FT	10 FT
Boom Height	20 IN	20 IN
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Water Hardness (ppm CaCO3)	250	250
Application Amount	15 GAL/AC	15 GAL/AC
Minimum Mix/Treatment	1.0433 L	1.0433 L
Mix Overage		25 mL
Mix Size	1 L	2 L
Spray pH	7.8	7.8
Propellant	COMCO2	COMCO2
Tank Mix (Y/N)		Y yes

Notes

Context	Date	By	Notes
STATUS	Apr-6-2021	Dain Bruns	Automatically added by ARM: Trial Status updated to 'S' during trial creation.

Pest ID Code				1 W Weed	2 W Weed	3 W Weed	4 W Weed		
Pest Code				SETFA	ECHCG	AMBTR	CHEAL		
Pest Scientific Name				Setaria faberi	Echinochloa cru>	Ambrosia trifida	Chenopodium alb>		
Pest Name				Giant foxtail	Common barnyard>	Giant ragweed	common lambsqua>		
Crop ID Code			1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA		
BBCH Scale			BSOY	BSOY	BSOY	BSOY	BSOY		
Crop Scientific Name			Glycine max	Glycine max	Glycine max	Glycine max	Glycine max		
Crop Name			Soybean	Soybean	Soybean	Soybean	Soybean		
Crop Variety			Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants		
Rating Date			Jun-14-2021	Jun-14-2021	Jun-14-2021	Jun-14-2021	Jun-14-2021		
SE Group No.			12	2	3	2	2		
SE Name			ZUSX001						
SE Description			%Phyto-General	%Control	%Control	%Control	%Control		
Part Rated			PLANT - PHYGEN	PLANT - CONTRO	PLANT - CONTRO	PLANT - CONTRO	PLANT - CONTRO		
Rating Unit/Min/Max			% 0 100	% 0 100	% 0 100	% 0 100	% 0 100		
Calculation			NC	NC	NC	NC	NC		
Sample Size			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Collection Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Reporting Basis			1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples			1	1	1	1	1		
Data Entry Date			Jun-21-2021	Jun-21-2021	Jun-21-2021	Jun-21-2021	Jun-21-2021		
Rating Timing			AT POST	AT POST	AT POST	AT POST	AT POST		
Days After First/Last Applic.			26 26	26 26	26 26	26 26	26 26		
Trt-Eval Interval			-1 DA-B	26 DA-A	26 DA-A	26 DA-A	26 DA-A		
Plant-Eval Interval			26 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1		
Days After Emergence			7 DE-1	7 DE-1	7 DE-1	7 DE-1	7 DE-1		
Number of Decimals			0	0	0	0	0		
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1*	2*	3*	4*	5*
1	UNTREATED CHECK				0 -	0 c	0 c	0	0 b
2	A23372 [A]	2030	g ai/ha	A	0 -	73 a	73 a	63 -	78 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
3	A23372 [A]	2430	g ai/ha	A	0 -	74 a	74 a	64 -	78 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					

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Pest ID Code		1 W Weed	2 W Weed	3 W Weed	4 W Weed
Pest Code		SETFA	ECHCG	AMBTR	CHEAL
Pest Scientific Name		Setaria faberi	Echinochloa cru>	Ambrosia trifida	Chenopodium alb>
Pest Name		Giant foxtail	Common barnyard>	Giant ragweed	common lambsqua>
Crop ID Code	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants
Rating Date	Jun-14-2021	Jun-14-2021	Jun-14-2021	Jun-14-2021	Jun-14-2021
SE Group No.	12	2	3	2	2
SE Name	ZUSX001				
SE Description	%Phyto-General	%Control	%Control	%Control	%Control
Part Rated	PLANT - PHYGEN	PLANT - CONTRO	PLANT - CONTRO	PLANT - CONTRO	PLANT - CONTRO
Rating Type	% 0 100	% 0 100	% 0 100	% 0 100	% 0 100
Rating Unit/Min/Max	NC	NC	NC	NC	NC
Calculation	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1	1	1	1	1
Number of Subsamples	Jun-21-2021	Jun-21-2021	Jun-21-2021	Jun-21-2021	Jun-21-2021
Data Entry Date	AT POST	AT POST	AT POST	AT POST	AT POST
Rating Timing	26 26	26 26	26 26	26 26	26 26
Days After First/Last Applic.	-1 DA-B	26 DA-A	26 DA-A	26 DA-A	26 DA-A
Trt-Eval Interval	26 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1
Plant-Eval Interval	7 DE-1	7 DE-1	7 DE-1	7 DE-1	7 DE-1
Days After Emergence	0	0	0	0	0
Number of Decimals					

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1*	2*	3*	4*	5*
4	BOUNDARY 6.5 EC	1640	g ai/ha	A	0 -	73 a	73 a	56 -	70 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
5	BROADAXE XC 7 EC	1530	g ai/ha	A	0 -	70 a	70 a	59 -	75 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
6	SONIC 70 DF	316	g ai/ha	A	0 -	30 b	30 b	53 -	74 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
7	FIERCE XLT 62.41 WG	197	g ai/ha	A	0 -	63 a	63 a	60 -	74 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
8	ZIDUA PRO 4.09 SC	215	g ai/ha	A	0 -	64 a	64 a	56 -	76 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
9	AUTHORITY EDGE	333	g ai/ha	A	0 -	69 a	69 a	55 -	78 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					

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Pest ID Code			1 W Weed	2 W Weed	3 W Weed	4 W Weed
Pest Code			SETFA	ECHCG	AMBTR	CHEAL
Pest Scientific Name			Setaria faberi	Echinochloa cru>	Ambrosia trifida	Chenopodium alb>
Pest Name			Giant foxtail	Common barnyard>	Giant ragweed	common lambsqua>
Crop ID Code		1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA
BBCH Scale		BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name		Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name		Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety		Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants
Rating Date		Jun-14-2021	Jun-14-2021	Jun-14-2021	Jun-14-2021	Jun-14-2021
SE Group No.		12	2	3	2	2
SE Name		ZUSX001				
SE Description		%Phyto-General	%Control	%Control	%Control	%Control
Part Rated		PLANT - PHYGEN	PLANT - CONTRO	PLANT - CONTRO	PLANT - CONTRO	PLANT - CONTRO
Rating Type		% 0 100	% 0 100	% 0 100	% 0 100	% 0 100
Rating Unit/Min/Max		NC	NC	NC	NC	NC
Calculation		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Sample Size		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis		1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis		1	1	1	1	1
Number of Subsamples		Jun-21-2021	Jun-21-2021	Jun-21-2021	Jun-21-2021	Jun-21-2021
Data Entry Date		AT POST	AT POST	AT POST	AT POST	AT POST
Rating Timing		26 26	26 26	26 26	26 26	26 26
Days After First/Last Applic.		-1 DA-B	26 DA-A	26 DA-A	26 DA-A	26 DA-A
Trt-Eval Interval		26 DP-1	26 DP-1	26 DP-1	26 DP-1	26 DP-1
Plant-Eval Interval		7 DE-1	7 DE-1	7 DE-1	7 DE-1	7 DE-1
Days After Emergence		0	0	0	0	0
Number of Decimals						

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1*	2*	3*	4*	5*
10	PREFIX [F]	2220	g ae/ha	A	0 -	75 a	75 a	64 -	63 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
LSD P=.05					.	9.2	9.2	8.4	15.9
Standard Deviation					0.0	6.4	6.4	5.8	11.0
CV					0.0	10.81	10.81	9.84	16.53
Levene's F^					.	1.065	1.065	1.254	0.829
Levene's Prob(F)					.	0.415	0.415	0.308	0.595
Skewness^					.	1.8545*	1.8545*	-0.4494	0.1031
Kurtosis^					.	8.2878*	8.2878*	0.4224	0.6065
Replicate F					0.000	7.705	7.705	3.398	6.943
Replicate Prob(F)					1.0000	0.0007	0.0007	0.0341	0.0013
Treatment F					0.000	59.330	59.330	1.962	18.782
Treatment Prob(F)					1.0000	0.0001	0.0001	0.0965	0.0001

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	6* dAA	7*	8*	9*	10*
	Pest ID Code				7 W Weed		1 W Weed	2 W Weed	3 W Weed
	Pest Code				IPOHE		SETFA	ECHCG	AMBTR
	Pest Scientific Name				Ipomoea hederac>		Setaria faberi	Echinochloa cru>	Ambrosia trifida
	Pest Name				ivy-leaf mornin>		Giant foxtail	Common barnyard>	Giant ragweed
	Crop ID Code				1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA
	BBCH Scale				BSOY	BSOY	BSOY	BSOY	BSOY
	Crop Scientific Name				Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
	Crop Name				Soybean	Soybean	Soybean	Soybean	Soybean
	Crop Variety				Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants
	Rating Date				Jun-14-2021	Jun-29-2021	Jun-28-2021	Jun-28-2021	Jun-28-2021
	SE Group No.				2	13	5	6	7
	SE Name					ZUSX001			
	SE Description				%Control	%Phyto-General	%Control	%Control	%Control
	Part Rated				PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
	Rating Type				CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
	Rating Unit/Min/Max				% 0 100	% 0 100	% 0 100	% 0 100	% 0 100
	Calculation				NC	NC	NC	NC	NC
	Sample Size				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Collection Basis				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Reporting Basis				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Number of Subsamples				1	1	1	1	1
	Data Entry Date				Jun-21-2021	Jun-28-2021	Jun-28-2021	Jun-28-2021	Jun-28-2021
	Rating Timing				AT POST				
	Days After First/Last Applic.				26 26	41 14	40 13	40 13	40 13
	Trt-Eval Interval				26 DA-A	14 DA-B	13 DA-B	13 DA-B	13 DA-B
	Plant-Eval Interval				26 DP-1	41 DP-1	40 DP-1	40 DP-1	40 DP-1
	Days After Emergence				7 DE-1	22 DE-1	21 DE-1	21 DE-1	21 DE-1
	Number of Decimals				0	0	0	0	0
1	UNTREATED CHECK				0 b	0	0 b	0 -	0 b
2	A23372 [A]	2030	g ai/ha	A	95 a	5 -	99 a	100 -	85 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
3	A23372 [A]	2430	g ai/ha	A	93 a	5 -	99 a	100 -	83 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					

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Conducted Under GEP: No Trial Origin: P public institution trial

Pest ID Code	7 W Weed		1 W Weed	2 W Weed	3 W Weed
Pest Code	IPOHE		SETFA	ECHCG	AMBTR
Pest Scientific Name	Ipomoea hederac>		Setaria faberi	Echinochloa cru>	Ambrosia trifida
Pest Name	ivy-leaf mornin>		Giant foxtail	Common barnyard>	Giant ragweed
Crop ID Code	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants
Rating Date	Jun-14-2021	Jun-29-2021	Jun-28-2021	Jun-28-2021	Jun-28-2021
SE Group No.	2	13	5	6	7
SE Name		ZUSX001			
SE Description	%Control	%Phyto-General	%Control	%Control	%Control
Part Rated	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% 0 100	% 0 100	% 0 100	% 0 100	% 0 100
Calculation	NC	NC	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-21-2021	Jun-28-2021	Jun-28-2021	Jun-28-2021	Jun-28-2021
Rating Timing	AT POST				
Days After First/Last Applic.	26 26	41 14	40 13	40 13	40 13
Trt-Eval Interval	26 DA-A	14 DA-B	13 DA-B	13 DA-B	13 DA-B
Plant-Eval Interval	26 DP-1	41 DP-1	40 DP-1	40 DP-1	40 DP-1
Days After Emergence	7 DE-1	22 DE-1	21 DE-1	21 DE-1	21 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	6* dAA	7*	8*	9*	10*
4	BOUNDARY 6.5 EC	1640	g ai/ha	A	86 a	5 -	99 a	100 -	78 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
5	BROADAXE XC 7 EC	1530	g ai/ha	A	99 a	6 -	99 a	100 -	80 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
6	SONIC 70 DF	316	g ai/ha	A	94 a	5 -	98 a	100 -	85 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
7	FIERCE XLT 62.41 WG	197	g ai/ha	A	64 a	6 -	100 a	100 -	84 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
8	ZIDUA PRO 4.09 SC	215	g ai/ha	A	98 a	6 -	99 a	100 -	86 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
9	AUTHORITY EDGE	333	g ai/ha	A	88 a	6 -	100 a	100 -	80 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					

The Ohio State University

A23372A: Crop Tolerance and Efficacy in Conventional Till Soybean (University - Medium Soils)

Trial ID: USNK0H4032021 Location: Bruns Dain FS Trial Year: 2021
Protocol ID: HSM050B4-2021US Investigator (Creator): Dain Bruns
Master Protocol ID: Study Director:
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

Pest ID Code	7 W Weed		1 W Weed	2 W Weed	3 W Weed
Pest Code	IPOHE		SETFA	ECHCG	AMBTR
Pest Scientific Name	Ipomoea hederac>		Setaria faberi	Echinochloa cru>	Ambrosia trifida
Pest Name	ivy-leaf mornin>		Giant foxtail	Common barnyard>	Giant ragweed
Crop ID Code	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants
Rating Date	Jun-14-2021	Jun-29-2021	Jun-28-2021	Jun-28-2021	Jun-28-2021
SE Group No.	2	13	5	6	7
SE Name		ZUSX001			
SE Description	%Control	%Phyto-General	%Control	%Control	%Control
Part Rated	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% 0 100	% 0 100	% 0 100	% 0 100	% 0 100
Calculation	NC	NC	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-21-2021	Jun-28-2021	Jun-28-2021	Jun-28-2021	Jun-28-2021
Rating Timing	AT POST				
Days After First/Last Applic.	26 26	41 14	40 13	40 13	40 13
Trt-Eval Interval	26 DA-A	14 DA-B	13 DA-B	13 DA-B	13 DA-B
Plant-Eval Interval	26 DP-1	41 DP-1	40 DP-1	40 DP-1	40 DP-1
Days After Emergence	7 DE-1	22 DE-1	21 DE-1	21 DE-1	21 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	6* dAA	7*	8*	9*	10*
10	PREFIX [F]	2220	g ae/ha	A	85 a	5 -	98 a	100 -	88 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
LSD P=.05					29.5 - 32.9	1.5	2.7	.	9.9
Standard Deviation					18.7t	1.0	1.9	0.0	6.8
CV					28.62t	19.39	2.11	0.0	9.16
Levene's F^					0.821	0.635	1.31	.	1.628
Levene's Prob(F)					0.601	0.741	0.273	.	0.152
Skewness^					-0.7341	-0.3534	-0.7686*	.	0.5243
Kurtosis^					2.634*	0.3646	0.5614	.	0.5521
Replicate F					0.384	20.442	0.633	0.000	0.338
Replicate Prob(F)					0.7655	0.0001	0.6003	1.0000	0.7980
Treatment F					6.880	0.332	1107.699	0.000	59.727
Treatment Prob(F)					0.0001	0.9451	0.0001	1.0000	0.0001

The Ohio State University

A23372A: Crop Tolerance and Efficacy in Conventional Till Soybean (University - Medium Soils)

Trial ID: USNK0H4032021 Location: Bruns Dain FS Trial Year: 2021
Protocol ID: HSM050B4-2021US Investigator (Creator): Dain Bruns
Master Protocol ID: Study Director:
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	11*	12*	13*	14*	15*
	Pest ID Code				4 W Weed	7 W Weed		1 W Weed	2 W Weed
	Pest Code				CHEAL	IPOHE		SETFA	ECHCG
	Pest Scientific Name				Chenopodium alb>	Ipomoea hederac>		Setaria faberi	Echinochloa cru>
	Pest Name				common lambsqua>	ivy-leaf mornin>		Giant foxtail	Common barnyard>
	Crop ID Code				1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA
	BBCH Scale				BSOY	BSOY	BSOY	BSOY	BSOY
	Crop Scientific Name				Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
	Crop Name				Soybean	Soybean	Soybean	Soybean	Soybean
	Crop Variety				Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants
	Rating Date				Jun-28-2021	Jun-28-2021	Jul-12-2021	Jul-12-2021	Jul-12-2021
	SE Group No.				7	7	14	9	10
	SE Name						ZUSX001		
	SE Description				%Control	%Control	%Phyto-General	%Control	%Control
	Part Rated				PLANT -	PLANT -	PLANT -	PLANT -	PLANT -
	Rating Type				CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
	Rating Unit/Min/Max				% 0 100	% 0 100	% 0 100	% 0 100	% 0 100
	Calculation				NC	NC	NC	NC	NC
	Sample Size				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Collection Basis				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Reporting Basis				1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
	Number of Subsamples				1	1	1	1	1
	Data Entry Date				Jun-28-2021	Jun-28-2021	Jul-14-2021	Jul-14-2021	Jul-14-2021
	Rating Timing								
	Days After First/Last Applic.				40 13	40 13	54 27	54 27	54 27
	Trt-Eval Interval				13 DA-B	13 DA-B	27 DA-B	27 DA-B	27 DA-B
	Plant-Eval Interval				40 DP-1	40 DP-1	54 DP-1	54 DP-1	54 DP-1
	Days After Emergence				21 DE-1	21 DE-1	35 DE-1	35 DE-1	35 DE-1
	Number of Decimals				0	0	0	0	0
1	UNTREATED CHECK				0 b	0 b	0 -	0	0 d
2	A23372 [A]	2030	g ai/ha	A	100 a	90 a	0 -	89 ab	85 ab
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
3	A23372 [A]	2430	g ai/ha	A	100 a	100 a	0 -	90 a	85 ab
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					

The Ohio State University

A23372A: Crop Tolerance and Efficacy in Conventional Till Soybean (University - Medium Soils)

Trial ID: USNK0H4032021 Location: Bruns Dain FS Trial Year: 2021
Protocol ID: HSM050B4-2021US Investigator (Creator): Dain Bruns
Master Protocol ID: Study Director:
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

Pest ID Code	4 W Weed	7 W Weed		1 W Weed	2 W Weed	
Pest Code	CHEAL	IPOHE		SETFA	ECHCG	
Pest Scientific Name	Chenopodium alb>	Ipomoea hederac>		Setaria faberi	Echinochloa cru>	
Pest Name	common lambsqua>	ivy-leaf mornin>		Giant foxtail	Common barnyard>	
Crop ID Code	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	
Crop Variety	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	
Rating Date	Jun-28-2021	Jun-28-2021	Jul-12-2021	Jul-12-2021	Jul-12-2021	
SE Group No.	7	7	14	9	10	
SE Name			ZUSX001			
SE Description	%Control	%Control	%Phyto-General	%Control	%Control	
Part Rated	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	
Rating Unit/Min/Max	% 0 100	% 0 100	% 0 100	% 0 100	% 0 100	
Calculation	NC	NC	NC	NC	NC	
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1	
Data Entry Date	Jun-28-2021	Jun-28-2021	Jul-14-2021	Jul-14-2021	Jul-14-2021	
Rating Timing						
Days After First/Last Applic.	40 13	40 13	54 27	54 27	54 27	
Trt-Eval Interval	13 DA-B	13 DA-B	27 DA-B	27 DA-B	27 DA-B	
Plant-Eval Interval	40 DP-1	40 DP-1	54 DP-1	54 DP-1	54 DP-1	
Days After Emergence	21 DE-1	21 DE-1	35 DE-1	35 DE-1	35 DE-1	
Number of Decimals	0	0	0	0	0	

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	11*	12*	13*	14*	15*
4	BOUNDARY 6.5 EC	1640	g ai/ha	A	98 a	95 a	0 -	85 ab	81 bc
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
5	BROADAXE XC 7 EC	1530	g ai/ha	A	100 a	96 a	0 -	88 ab	86 ab
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
6	SONIC 70 DF	316	g ai/ha	A	100 a	100 a	0 -	79 b	78 c
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
7	FIERCE XLT 62.41 WG	197	g ai/ha	A	100 a	85 a	0 -	90 a	90 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
8	ZIDUA PRO 4.09 SC	215	g ai/ha	A	100 a	91 a	0 -	89 ab	85 ab
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
9	AUTHORITY EDGE	333	g ai/ha	A	100 a	95 a	0 -	93 a	86 ab
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					

The Ohio State University

A23372A: Crop Tolerance and Efficacy in Conventional Till Soybean (University - Medium Soils)

Trial ID: USNK0H4032021 Location: Bruns Dain FS Trial Year: 2021
Protocol ID: HSM050B4-2021US Investigator (Creator): Dain Bruns
Master Protocol ID: Study Director:
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

Pest ID Code	4 W Weed	7 W Weed		1 W Weed	2 W Weed	
Pest Code	CHEAL	IPOHE		SETFA	ECHCG	
Pest Scientific Name	Chenopodium alb>	Ipomoea hederac>		Setaria faberi	Echinochloa cru>	
Pest Name	common lambsqua>	ivy-leaf mornin>		Giant foxtail	Common barnyard>	
Crop ID Code	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	1 GLXMA	
BBCH Scale	BSOY	BSOY	BSOY	BSOY	BSOY	
Crop Scientific Name	Glycine max	Glycine max	Glycine max	Glycine max	Glycine max	
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean	
Crop Variety	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	Seed Consultants	
Rating Date	Jun-28-2021	Jun-28-2021	Jul-12-2021	Jul-12-2021	Jul-12-2021	
SE Group No.	7	7	14	9	10	
SE Name			ZUSX001			
SE Description	%Control	%Control	%Phyto-General	%Control	%Control	
Part Rated	PLANT -	PLANT -	PLANT -	PLANT -	PLANT -	
Rating Type	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO	
Rating Unit/Min/Max	% 0 100	% 0 100	% 0 100	% 0 100	% 0 100	
Calculation	NC	NC	NC	NC	NC	
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Collection Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Reporting Basis	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1	
Data Entry Date	Jun-28-2021	Jun-28-2021	Jul-14-2021	Jul-14-2021	Jul-14-2021	
Rating Timing						
Days After First/Last Applic.	40 13	40 13	54 27	54 27	54 27	
Trt-Eval Interval	13 DA-B	13 DA-B	27 DA-B	27 DA-B	27 DA-B	
Plant-Eval Interval	40 DP-1	40 DP-1	54 DP-1	54 DP-1	54 DP-1	
Days After Emergence	21 DE-1	21 DE-1	35 DE-1	35 DE-1	35 DE-1	
Number of Decimals	0	0	0	0	0	

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	11*	12*	13*	14*	15*
10	PREFIX [F]	2220	g ae/ha	A	99 a	96 a	0 -	88 ab	90 a
	AMSOL	2.5	% v/v	B					
	SEQUENCE 5.25 EW	2570	g ae/ha	B					
	ENLIST ONE 3.8 SL	530	g ae/ha	B					
LSD P=.05					2.4	11.3	.	6.9	5.3
Standard Deviation					1.7	7.8	0.0	4.7	3.6
CV					1.88	9.18	0.0	5.4	4.73
Levene's F^					0.487	1.039	.	1.215	1.561
Levene's Prob(F)					0.872	0.433	.	0.328	0.173
Skewness^					-2.3041*	-0.428	.	-0.0045	-0.157
Kurtosis^					10.4206*	-0.2008	.	-0.5801	-0.3243
Replicate F					1.976	1.740	0.000	4.139	4.492
Replicate Prob(F)					0.1414	0.1826	1.0000	0.0169	0.0111
Treatment F					1394.171	59.965	0.000	2.879	225.085
Treatment Prob(F)					0.0001	0.0001	1.0000	0.0213	0.0001

The Ohio State University

A23372A: Crop Tolerance and Efficacy in Conventional Till Soybean (University - Medium Soils)

Trial ID: USNK0H4032021 Location: Bruns Dain FS Trial Year: 2021
Protocol ID: HSM050B4-2021US Investigator (Creator): Dain Bruns
Master Protocol ID: Study Director:
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

Pest ID Code				3 W Weed	4 W Weed	7 W Weed
Pest Code				AMBTR	CHEAL	IPOHE
Pest Scientific Name				Ambrosia trifida	Chenopodium alb>	Ipomoea hederac>
Pest Name				Giant ragweed	common lambsqua>	ivy-leaf mornin>
Crop ID Code				1 GLXMA	1 GLXMA	1 GLXMA
BBCH Scale				BSOY	BSOY	BSOY
Crop Scientific Name				Glycine max	Glycine max	Glycine max
Crop Name				Soybean	Soybean	Soybean
Crop Variety				Seed Consultants	Seed Consultants	Seed Consultants
Rating Date				Jul-12-2021	Jul-12-2021	Jul-12-2021
SE Group No.				11	11	11
SE Name						
SE Description				%Control	%Control	%Control
Part Rated				PLANT -	PLANT -	PLANT -
Rating Type				CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max				% 0 100	% 0 100	% 0 100
Calculation				NC	NC	NC
Sample Size				1 PLOT	1 PLOT	1 PLOT
Collection Basis				1 PLOT	1 PLOT	1 PLOT
Reporting Basis				1 PLOT	1 PLOT	1 PLOT
Number of Subsamples				1	1	1
Data Entry Date				Jul-14-2021	Jul-14-2021	Jul-14-2021
Rating Timing						
Days After First/Last Applic.				54 27	54 27	54 27
Trt-Eval Interval				27 DA-B	27 DA-B	27 DA-B
Plant-Eval Interval				54 DP-1	54 DP-1	54 DP-1
Days After Emergence				35 DE-1	35 DE-1	35 DE-1
Number of Decimals				0	0	0
Trt No. Treatment Name	**Rate**	**Rate Unit**	**Appl Code**	**16***	**17***	**18***
1 UNTREATED CHECK				0	0 c	0
2 A23372 [A]	2030	g ai/ha	A	74 -	98 ab	81 -
AMSOL	2.5	% v/v	B			
SEQUENCE 5.25 EW	2570	g ae/ha	B			
ENLIST ONE 3.8 SL	530	g ae/ha	B			
3 A23372 [A]	2430	g ai/ha	A	71 -	100 a	86 -
AMSOL	2.5	% v/v	B			
SEQUENCE 5.25 EW	2570	g ae/ha	B			
ENLIST ONE 3.8 SL	530	g ae/ha	B			

The Ohio State University

A23372A: Crop Tolerance and Efficacy in Conventional Till Soybean (University - Medium Soils)

Trial ID: USNK0H4032021 Location: Bruns Dain FS Trial Year: 2021
Protocol ID: HSM050B4-2021US Investigator (Creator): Dain Bruns
Master Protocol ID: Study Director:
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

Pest ID Code	3 W Weed	4 W Weed	7 W Weed
Pest Code	AMBTR	CHEAL	IPOHE
Pest Scientific Name	Ambrosia trifida	Chenopodium alb>	Ipomoea hederac>
Pest Name	Giant ragweed	common lambsqua>	ivy-leaf mornin>
Crop ID Code	1 GLXMA	1 GLXMA	1 GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Crop Variety	Seed Consultants	Seed Consultants	Seed Consultants
Rating Date	Jul-12-2021	Jul-12-2021	Jul-12-2021
SE Group No.	11	11	11
SE Name			
SE Description	%Control	%Control	%Control
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% 0 100	% 0 100	% 0 100
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-14-2021	Jul-14-2021	Jul-14-2021
Rating Timing			
Days After First/Last Applic.	54 27	54 27	54 27
Trt-Eval Interval	27 DA-B	27 DA-B	27 DA-B
Plant-Eval Interval	54 DP-1	54 DP-1	54 DP-1
Days After Emergence	35 DE-1	35 DE-1	35 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	16*	17*	18*
4	BOUNDARY 6.5 EC	1640	g ai/ha	A	68 -	89 b	75 -
	AMSOL	2.5	% v/v	B			
	SEQUENCE 5.25 EW	2570	g ae/ha	B			
	ENLIST ONE 3.8 SL	530	g ae/ha	B			
5	BROADAXE XC 7 EC	1530	g ai/ha	A	78 -	100 a	95 -
	AMSOL	2.5	% v/v	B			
	SEQUENCE 5.25 EW	2570	g ae/ha	B			
	ENLIST ONE 3.8 SL	530	g ae/ha	B			
6	SONIC 70 DF	316	g ai/ha	A	74 -	100 a	88 -
	AMSOL	2.5	% v/v	B			
	SEQUENCE 5.25 EW	2570	g ae/ha	B			
	ENLIST ONE 3.8 SL	530	g ae/ha	B			
7	FIERCE XLT 62.41 WG	197	g ai/ha	A	74 -	96 ab	81 -
	AMSOL	2.5	% v/v	B			
	SEQUENCE 5.25 EW	2570	g ae/ha	B			
	ENLIST ONE 3.8 SL	530	g ae/ha	B			
8	ZIDUA PRO 4.09 SC	215	g ai/ha	A	74 -	100 a	88 -
	AMSOL	2.5	% v/v	B			
	SEQUENCE 5.25 EW	2570	g ae/ha	B			
	ENLIST ONE 3.8 SL	530	g ae/ha	B			
9	AUTHORITY EDGE	333	g ai/ha	A	73 -	96 ab	85 -
	AMSOL	2.5	% v/v	B			
	SEQUENCE 5.25 EW	2570	g ae/ha	B			
	ENLIST ONE 3.8 SL	530	g ae/ha	B			

The Ohio State University

A23372A: Crop Tolerance and Efficacy in Conventional Till Soybean (University - Medium Soils)

Trial ID: USNK0H4032021 Location: Bruns Dain FS Trial Year: 2021
Protocol ID: HSM050B4-2021US Investigator (Creator): Dain Bruns
Master Protocol ID: Study Director:
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

Pest ID Code	3 W Weed	4 W Weed	7 W Weed
Pest Code	AMBTR	CHEAL	IPOHE
Pest Scientific Name	Ambrosia trifida	Chenopodium alb>	Ipomoea hederac>
Pest Name	Giant ragweed	common lambsqua>	ivy-leaf mornin>
Crop ID Code	1 GLXMA	1 GLXMA	1 GLXMA
BBCH Scale	BSOY	BSOY	BSOY
Crop Scientific Name	Glycine max	Glycine max	Glycine max
Crop Name	Soybean	Soybean	Soybean
Crop Variety	Seed Consultants	Seed Consultants	Seed Consultants
Rating Date	Jul-12-2021	Jul-12-2021	Jul-12-2021
SE Group No.	11	11	11
SE Name			
SE Description	%Control	%Control	%Control
Part Rated	PLANT -	PLANT -	PLANT -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% 0 100	% 0 100	% 0 100
Calculation	NC	NC	NC
Sample Size	1 PLOT	1 PLOT	1 PLOT
Collection Basis	1 PLOT	1 PLOT	1 PLOT
Reporting Basis	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Data Entry Date	Jul-14-2021	Jul-14-2021	Jul-14-2021
Rating Timing			
Days After First/Last Applic.	54 27	54 27	54 27
Trt-Eval Interval	27 DA-B	27 DA-B	27 DA-B
Plant-Eval Interval	54 DP-1	54 DP-1	54 DP-1
Days After Emergence	35 DE-1	35 DE-1	35 DE-1
Number of Decimals	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	16*	17*	18*
10	PREFIX [F]	2220	g ae/ha	A	78 -	98 ab	86 -
	AMSOL	2.5	% v/v	B			
	SEQUENCE 5.25 EW	2570	g ae/ha	B			
	ENLIST ONE 3.8 SL	530	g ae/ha	B			
LSD P=.05					6.6	6.4	14.5
Standard Deviation					4.6	4.4	10.0
CV					6.2	5.01	11.72
Levene's F^					0.23	0.542	1.075
Levene's Prob(F)					0.982	0.832	0.409
Skewness^					0.1295	-0.5654	0.4348
Kurtosis^					-0.0302	1.6339*	-0.6441
Replicate F					1.553	2.372	1.662
Replicate Prob(F)					0.2266	0.0925	0.2018
Treatment F					1.793	199.527	1.229
Treatment Prob(F)					0.1281	0.0001	0.3251

The Ohio State University

A23372A: Crop Tolerance and Efficacy in Conventional Till Soybean (University - Medium Soils)

Trial ID: USNK0H4032021 Location: Bruns Dain FS Trial Year: 2021
Protocol ID: HSM050B4-2021US Investigator (Creator): Dain Bruns
Master Protocol ID: Study Director:
Official Trial ID: Sponsor Contact:
Conducted Under GEP: No Trial Origin: P public institution trial

Crop ID Code
1, GLXMA, BSOY, Glycine max, Soybean, Seed Consultants = 2,4-D Choline, Glyphosate, Glufosinate Tol
Part Rated
PLANT = plant
Rating Type
PHYGEN = phytotoxicity - general / injury
CONTRO = control / burndown or knockdown
Rating Unit/Min/Max
%, 0, 100 = percent
Calculation
NC = no calculation

PLOT = total plot

PLOT = total plot

PLOT = total plot
Plant-Eval Interval
26 DP-1 = 1 GLXMA May-19-2021
41 DP-1 = 1 GLXMA May-19-2021
40 DP-1 = 1 GLXMA May-19-2021
54 DP-1 = 1 GLXMA May-19-2021