

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2
 Protocol ID: H21US-0X1-577-001 Location: Cooperator Trial ID:
 Project ID: Project ID 2: Project ID 3: Trial Year: 2020
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

General Trial Information

Investigator: Joe Reed

Status: E established
 ARM Trial Created On: Nov-18-2021

Trial Location

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

Latitude of LL Corner °: 39.85876 N
 Longitude of LL Corner °: -83.6717 W
 Altitude of LL Corner: 1085.00 FT

Conducted Under GLP: No
 Conducted Under GEP: No
 None

Role: INVEST investigator
 Investigator: Joe Reed

Crop Description

Crop 1: C GLXMA Glycine max Soybean BBCH Scale: BSOY
 Entry Date: May-3-2022 Stage Scale: BBCH
 Variety: Pioneer P35T15E
 Attributes: 2,4-D Choline, Glyphosate, Glufosinate Tol
 Planting Date: Apr-27-2022 Seed Size: 2978 S/LB
 Depth: 1.5 IN Planting Rate: 165000 S/A
 Rows per Plot: 8 Planting Method: PLANTD planted
 Row Spacing: 15 IN Planting Equipment: PP plot planter
 Seed Bed: MEDTRA medium/trashy
 Soil Temperature: 43 F Soil Moisture: SLIDRY slightly dry
 Emergence Date: May-16-2022 Harvest Equipment: Kincaid 8XP
 Harvest Date: Oct-12-2022 Harvested Width: 6.25 FT
 Moisture Meter: Harvest Master Harvested Length: 30 FT
 % Standard Moisture: 13
 Weighing Equipment: Harvest Master HM800

Pest Description

Pest 1 Type: W Code: LAMPU Lamium purpureum Entry Date: Nov-29-2021
 Common Name: Purple deadnettle Stage Scale: BBCH
 Pest 2 Type: W Code: RANAB Ranunculus abortivus Entry Date: Nov-29-2021
 Common Name: Smallflower buttercup Stage Scale: BBCH
 Pest 3 Type: W Code: CARPE Cardamine pensylvanica Entry Date: Nov-29-2021
 Common Name: Pennsylvania bittercress Stage Scale: BBCH
 Pest 4 Type: W Code: SETFA Setaria faberi Entry Date: Jun-2-2022
 Common Name: Giant foxtail Stage Scale: BBCH
 Pest 5 Type: W Code: AMBTR Ambrosia trifida Entry Date: Jun-2-2022
 Common Name: Giant ragweed Stage Scale: BBCH
 Pest 6 Type: W Code: AMBEL Ambrosia artemisiifolia Entry Date: Jun-2-2022
 Common Name: Common ragweed Stage Scale: BBCH
 Pest 7 Type: W Code: CHEAL Chenopodium album Entry Date: Jun-2-2022
 Common Name: common lambsquarters Stage Scale: BBCH
 Pest 8 Type: W Code: ABUTH Abutilon theophrasti Entry Date: Jun-2-2022
 Common Name: velvetleaf Stage Scale: BBCH

Site and Design

Treated Plot Width: 6.67 FT Site Type: FIELD field
 Treated Plot Length: 30 FT Experimental Unit: 1 PLOT plot
 Treated Plot Area: 200.1 FT² Tillage Type: NOTILL no-till
 Replications: 3 Treatments: 6 Plots: 18 Study Design: RAOBL Randomized Complete Block (RCB)

Previous
 No. Crop Year
 1. CORN 2021

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Soil Description

Description Name: F-9 East
 % Sand: 36 % OM: 3 Texture: SICL silty clay loam
 % Silt: 49 Soil Name: Kokomo
 % Clay: 15 Fert. Level: G good
 pH: 6.4 CEC: 17.8
 Soil Drainage: G good

Application Description

	A	B	C	D
Application Date	Nov-19-2021	Apr-28-2022	May-31-2022	
Appl. Start Time	1:30 PM	10:30 AM	11:00 AM	
Appl. Stop Time	1:45 PM	11:00 AM	11:10 AM	
Interval to Prev. Appl.		160 DAYS	33 DAYS	
Application Method	SPRAY	SPRAY	SPRAY	
Application Timing	FALL	PRE	POST	
Application Placement	BROFOL	BROFOL	BROFOL	
Applied By	Dobbels	Essman	Dobbels	
Appl. Entry Date	Nov-29-2021	May-3-2022	Jun-1-2022	
Air Temperature Start, Stop	36, 36 F	43, 43 F	81, 81 F	
% Relative Humidity Start, Stop	54, 54	44, 44	59, 59	
Wind Velocity+Dir. Start	2 MPH, S	4 MPH, E	6 MPH, SW	
Wind Velocity+Dir. Stop	2 MPH, S	4 MPH, E	6 MPH, SW	
Wind Velocity+Dir. Max	2 MPH, S	4 MPH, E	6 MPH, SW	
Wet Leaves (Y/N)	N, no	N, no	N, no	
Soil Temperature	38 F	44 F		
Soil Moisture	NORMAL	DRY	DRY	
Soil Surface Condition	MEDTRA	MEDTRA	MEDTRA	
% Cloud Cover	20	90	10	
Next Moisture Occurred On	Nov-21-2021	Apr-30-2022	Jun-1-2022	
Time to Next Moisture	3.0 DAY	2.0 DAY	1.0 DAY	
Moisture 6 Hours after Appl.	0 IN	0 IN	0 IN	
Moisture 1 Week after Appl.	0.45 IN	1.1 IN	0.94 IN	

Crop Stage At Each Application

	A	B	C	D
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-178	-18	15	
Stage Majority, Percent			12, -	
Height Average			4 IN	
Height Minimum, Maximum			3, 4	

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Stage At Each Application

	A	B	C	D
Pest 1 Code, Type, Scale	LAMPU, W, BBCH	LAMPU, W, BBCH	LAMPU, W, BBCH	LAMPU, W, BBCH
Stage Majority, Percent	16, 80			
Stage Minimum, Percent	14, 10			
Stage Maximum, Percent	18, 10			
Diameter Average	2 IN			
Diameter Minimum, Maximum	1, 2			
Height Average	2 IN			
Height Minimum, Maximum	1, 2			
Density Average	8 PLA/m2			
Density Minimum, Maximum	3, 20			
Pest 2 Code, Type, Scale	RANAB, W, BBCH	RANAB, W, BBCH	RANAB, W, BBCH	RANAB, W, BBCH
Stage Majority, Percent	12, 80			
Stage Minimum, Percent	12, 80			
Stage Maximum, Percent	13, 10			
Diameter Average	1 IN			
Diameter Minimum, Maximum	1, 2			
Height Average	1 IN			
Height Minimum, Maximum	0.5, 1			
Density Average	3 PLA/m2			
Density Minimum, Maximum	0, 5			
Pest 3 Code, Type, Scale	CARPE, W, BBCH	CARPE, W, BBCH	CARPE, W, BBCH	CARPE, W, BBCH
Stage Majority, Percent	19, 100			
Diameter Average	2 IN			
Diameter Minimum, Maximum	2, 3			
Height Average	0.5 IN			
Height Minimum, Maximum	0.5, 1			
Density Average	2 PLA/m2			
Density Minimum, Maximum	0, 3			
Pest 4 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Height Average		6 IN		
Height Minimum, Maximum		4, 8		
Pest 5 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average		22 IN		
Height Minimum, Maximum		12, 24		
Pest 6 Code, Type, Scale	AMBEL, W, BBCH	AMBEL, W, BBCH	AMBEL, W, BBCH	AMBEL, W, BBCH
Height Average		4 IN		
Height Minimum, Maximum		2, 6		
Pest 7 Code, Type, Scale	CHEAL, W, BBCH	CHEAL, W, BBCH	CHEAL, W, BBCH	CHEAL, W, BBCH
Height Average		4 IN		
Height Minimum, Maximum		2, 4		
Pest 8 Code, Type, Scale	ABUTH, W, BBCH	ABUTH, W, BBCH	ABUTH, W, BBCH	ABUTH, W, BBCH
Height Average		3 IN		
Height Minimum, Maximum		2, 3		

Application Equipment

	A	B	CD
Appl. Equipment	6' AIXR	6' AIXR	
Equipment Type	BACCAI	BACCAI	
Operation Pressure	44 PSI	44 PSI	
Nozzle Model	110015	110015	
Nozzle Type	AI XR	AI XR	
Nozzle TradeName	TeeJet	TeeJet	
Nozzle Tip Size, Color	015, green	015, green	
Nozzle Spacing	18 IN	18.0 IN	
Boom Length	10 FT	10.0 FT	
Boom Height	20 IN	20.0 IN	
Ground Speed	3 MPH	3 MPH	
Carrier	WATER	WATER	
Water Hardness (ppm CaCO3)	250	250	
Application Amount	15 GAL/AC	15 GAL/AC	
Mix Overage	25 mL	25.0 mL	
Mix Size	2 L	2.0 L	
Spray pH	7.8	7.8	
Propellant	COMCO2	COMCO2	
Tank Mix (Y/N)	Y, yes	Y, yes	

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed LAMPU	W, Weed RANAB	W, Weed CARPE	W, Weed AMBTR
Pest Code				
Pest Scientific Name	Lamium purpureum	Ranunculus abortivus	Cardamine pensylvanica	Ambrosia trifida
Pest Name	purple deadnettle	Smallflower but	Pennsylvania bi	Giant ragweed
Crop Type, Code				
Crop Name				
Rating Date	Apr-27-2022	Apr-27-2022	Apr-27-2022	Apr-27-2022
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	May-3-2022		May-3-2022	May-3-2022
Rating Timing				
Days After First/Last Applic.	159, 159	159, 159	159, 159	159, 159
Trt-Eval Interval	AT PLANT	AT PLANT	AT PLANT	AT PLANT
Plant-Eval Interval	0 DP-1	0 DP-1	0 DP-1	0 DP-1
Days After Emergence	-19 DE-1	-19 DE-1	-19 DE-1	-19 DE-1
ARM Action Codes				
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Appl Code	Appl Description	1*	2*	3*	4*
1 Untreated Check		D		0-	0-	0-	0-
2 Roundup PowerMax	32 fl oz/a A		Fall Application	100-	100-	100-	0-
2 Preview 2:1 SC	20 fl oz/a A		Fall Application				
2 N Pak AMS	2.5% v/v A		Fall Application				
2 InterMoc / KFD-235-02	29 fl oz/a C		Early Post Application				
2 NIS	0.25% v/v C		Early Post Application				
2 N Pak AMS	6% v/v C		Early Post Application				
2 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
2 NIS	0.25% v/v E		Late Post Application				
2 N Pak AMS	6% v/v E		Late Post Application				
3 Roundup PowerMax	32 fl oz/a A		Fall Application	100-	100-	100-	0-
3 Preview 2:1 SC	25 fl oz/a A		Fall Application				
3 N Pak AMS	2.5% v/v A		Fall Application				
3 InterMoc / KFD-235-02	29 fl oz/a C		Early Post Application				
3 NIS	0.25% v/v C		Early Post Application				
3 N Pak AMS	6% v/v C		Early Post Application				
3 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
3 NIS	0.25% v/v E		Late Post Application				
3 N Pak AMS	6% v/v E		Late Post Application				
4 Roundup PowerMax	32 fl oz/a A		Fall Application	100-	100-	100-	0-
4 Authority MTZ / KFD-291-02	14 oz/a A		Fall Application				
4 N Pak AMS	2.5% v/v A		Fall Application				
4 Anthem MAX	2 fl oz/a C		Early Post Application				
4 NIS	0.25% v/v C		Early Post Application				
4 N Pak AMS	6% v/v C		Early Post Application				
4 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
4 NIS	0.25% v/v E		Late Post Application				
4 N Pak AMS	6% v/v E		Late Post Application				
5 Roundup PowerMax	32 oz/a A		Fall Application	100-	100-	100-	0-
5 Audit 1:1	0.75 oz/a A		Fall Application				
5 N Pak AMS	2.5% v/v A		Fall Application				
5 Preview 2:1 SC	20 fl oz/a B		Spring Application				
5 N Pak AMS	6% v/v B		Spring Application				
5 Interline - Lifeline / KFD-138	32 fl oz/a D		Mid Post Application				
5 NIS	0.25% v/v D		Mid Post Application				
5 N Pak AMS	6% v/v D		Mid Post Application				
5 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
5 NIS	0.25% v/v E		Late Post Application				
5 N Pak AMS	6% v/v E		Late Post Application				

Means followed by same letter or symbol do not significantly differ (P= .05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, the effective replicates used for mean comparisons are: col. 1-15=3

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,2,3,4 because error mean square = 0.

^ Calculated from residual.

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	LAMPU	RANAB	CARPE	AMBTR
Pest Scientific Name	Lamium purpureum	Ranunculus abor>	Cardamine pensy>	Ambrosia trifida
Pest Name	purple deadnett>	Smallflower but>	Pennsylvania bi>	Giant ragweed
Crop Type, Code				
Crop Name				
Rating Date	Apr-27-2022	Apr-27-2022	Apr-27-2022	Apr-27-2022
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	May-3-2022		May-3-2022	May-3-2022
Rating Timing				
Days After First/Last Applic.	159, 159	159, 159	159, 159	159, 159
Trt-Eval Interval	AT PLANT	AT PLANT	AT PLANT	AT PLANT
Plant-Eval Interval	0 DP-1	0 DP-1	0 DP-1	0 DP-1
Days After Emergence	-19 DE-1	-19 DE-1	-19 DE-1	-19 DE-1
ARM Action Codes				
Number of Decimals	0	0	0	0
Trt Treatment	1*	2*	3*	4*
No. Name	Rate	Appl	Appl	
	Rate Unit	Code	Description	
6 Roundup PowerMax	32 fl oz/a	B	Spring Application	0- 0- 0- 0-
6 Preview 2:1 SC	20 fl oz/a	B	Spring Application	
6 N Pak AMS	6% v/v	B	Spring Application	
6 Interline - Lifeline / KFD-138	32 fl oz/a	D	Mid Post Application	
6 NIS	0.25% v/v	D	Mid Post Application	
6 N Pak AMS	6% v/v	D	Mid Post Application	
6 Interline - Lifeline / KFD-138	32 fl oz/a	E	Late Post Application	
6 NIS	0.25% v/v	E	Late Post Application	
6 N Pak AMS	6% v/v	E	Late Post Application	
LSD P=.05				
Standard Deviation	0.0	0.0	0.0	0.0
CV	0.0	0.0	0.0	0.0
Grand Mean	66.7	66.7	66.7	66.7
Levene's F^	.	.	.	.
Levene's Prob(F)	.	.	.	.
Rank X2	.	.	.	.
P(Rank X2)	.	.	.	.
Skewness^	.	.	.	.
Kurtosis^	.	.	.	.
Replicate F	0.000	0.000	0.000	0.000
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000
Treatment F	0.000	0.000	0.000	0.000
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, the effective replicates used for mean comparisons are: col. 1-15=3
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,3,4 because error mean square = 0.
 ^Calculated from residual.

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SETFA	AMBTR	CHEAL	AMARE
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Chenopodium alb>	Amaranthus retr>
Pest Name	Giant foxtail	Giant ragweed	common lambsqua>	Redroot pigweed
Crop Type, Code				
Crop Name				
Rating Date	Jun-2-2022	Jun-2-2022	Jun-2-2022	Jun-2-2022
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-2-2022	Jun-2-2022	Jun-2-2022	Jun-2-2022
Rating Timing	AT POST	AT POST	AT POST	AT POST
Days After First/Last Applic.	195, 2	195, 2	195, 2	195, 2
Trt-Eval Interval				
Plant-Eval Interval	36 DP-1	36 DP-1	36 DP-1	36 DP-1
Days After Emergence	17 DE-1	17 DE-1	17 DE-1	17 DE-1
ARM Action Codes				
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Appl Code	Appl Description	5*	6*	7*	8*
1 Untreated Check		D		20b	17b	33-	33-
2 Roundup PowerMax	32 fl oz/a A		Fall Application	83a	83a	100-	100-
2 Preview 2:1 SC	20 fl oz/a A		Fall Application				
2 N Pak AMS	2.5% v/v A		Fall Application				
2 InterMoc / KFD-235-02	29 fl oz/a C		Early Post Application				
2 NIS	0.25% v/v C		Early Post Application				
2 N Pak AMS	6% v/v C		Early Post Application				
2 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
2 NIS	0.25% v/v E		Late Post Application				
2 N Pak AMS	6% v/v E		Late Post Application				
3 Roundup PowerMax	32 fl oz/a A		Fall Application	83a	88a	100-	100-
3 Preview 2:1 SC	25 fl oz/a A		Fall Application				
3 N Pak AMS	2.5% v/v A		Fall Application				
3 InterMoc / KFD-235-02	29 fl oz/a C		Early Post Application				
3 NIS	0.25% v/v C		Early Post Application				
3 N Pak AMS	6% v/v C		Early Post Application				
3 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
3 NIS	0.25% v/v E		Late Post Application				
3 N Pak AMS	6% v/v E		Late Post Application				
4 Roundup PowerMax	32 fl oz/a A		Fall Application	77a	20b	100-	100-
4 Authority MTZ / KFD-291-02	14 oz/a A		Fall Application				
4 N Pak AMS	2.5% v/v A		Fall Application				
4 Anthem MAX	2 fl oz/a C		Early Post Application				
4 NIS	0.25% v/v C		Early Post Application				
4 N Pak AMS	6% v/v C		Early Post Application				
4 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
4 NIS	0.25% v/v E		Late Post Application				
4 N Pak AMS	6% v/v E		Late Post Application				
5 Roundup PowerMax	32 oz/a A		Fall Application	70a	30b	93-	100-
5 Audit 1:1	0.75 oz/a A		Fall Application				
5 N Pak AMS	2.5% v/v A		Fall Application				
5 Preview 2:1 SC	20 fl oz/a B		Spring Application				
5 N Pak AMS	6% v/v B		Spring Application				
5 Interline - Lifeline / KFD-138	32 fl oz/a D		Mid Post Application				
5 NIS	0.25% v/v D		Mid Post Application				
5 N Pak AMS	6% v/v D		Mid Post Application				
5 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
5 NIS	0.25% v/v E		Late Post Application				
5 N Pak AMS	6% v/v E		Late Post Application				

Means followed by same letter or symbol do not significantly differ (P= .05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, the effective replicates used for mean comparisons are: col. 1-15=3

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,2,3,4 because error mean square = 0.

^ Calculated from residual.

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SETFA	AMBTR	CHEAL	AMARE
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Chenopodium alb>	Amaranthus retr>
Pest Name	Giant foxtail	Giant ragweed	common lambsqua>	Redroot pigweed
Crop Type, Code				
Crop Name				
Rating Date	Jun-2-2022	Jun-2-2022	Jun-2-2022	Jun-2-2022
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-2-2022	Jun-2-2022	Jun-2-2022	Jun-2-2022
Rating Timing	AT POST	AT POST	AT POST	AT POST
Days After First/Last Applic.	195, 2	195, 2	195, 2	195, 2
Trt-Eval Interval				
Plant-Eval Interval	36 DP-1	36 DP-1	36 DP-1	36 DP-1
Days After Emergence	17 DE-1	17 DE-1	17 DE-1	17 DE-1
ARM Action Codes				
Number of Decimals	0	0	0	0
Trt Treatment	5*	6*	7*	8*
No. Name				
Rate				
Appl Code				
Appl Description				
6Roundup PowerMax	32 fl oz/a B	Spring Application	72a	77a
6Preview 2:1 SC	20 fl oz/a B	Spring Application	100-	100-
6N Pak AMS	6% v/v B	Spring Application		
6Interline - Lifeline / KFD-138	32 fl oz/a D	Mid Post Application		
6NIS	0.25% v/v D	Mid Post Application		
6N Pak AMS	6% v/v D	Mid Post Application		
6Interline - Lifeline / KFD-138	32 fl oz/a E	Late Post Application		
6NIS	0.25% v/v E	Late Post Application		
6N Pak AMS	6% v/v E	Late Post Application		
LSD P=.05	29.9	27.3	45.4	42.9
Standard Deviation	16.5	15.0	24.9	23.6
CV	24.38	28.62	28.42	26.52
Grand Mean	67.5	52.5	87.8	88.9
Levene's F^	0.817	0.586	0.556	0.533
Levene's Prob(F)	0.56	0.711	0.732	0.747
Rank X2	.	.	.	.
P(Rank X2)	.	.	.	.
Skewness^	0.9969	0.3494	1.2694*	1.3829*
Kurtosis^	3.0251*	2.0888*	4.4213*	4.8663*
Replicate F	0.385	0.351	0.571	1.000
Replicate Prob(F)	0.6904	0.7126	0.5821	0.4019
Treatment F	6.348	15.052	3.464	4.000
Treatment Prob(F)	0.0066	0.0002	0.0447	0.0297

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, the effective replicates used for mean comparisons are: col. 1-15=3
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,3,4 because error mean square = 0.
 ^Calculated from residual.

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	ABUTH	SETFA	ECHCG	AMBTR
Pest Scientific Name	Abutilon theoph>	Setaria faberi	Echinochloa cru>	Ambrosia trifida
Pest Name	velvetleaf	Giant foxtail	common barnyard>	Giant ragweed
Crop Type, Code				
Crop Name				
Rating Date	Jun-2-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-2-2022	Jun-15-2022	Jun-15-2022	Jun-15-2022
Rating Timing	AT POST			
Days After First/Last Applic.	195, 2	207, 14	207, 14	207, 14
Trt-Eval Interval		14 DA-C	14 DA-C	14 DA-C
Plant-Eval Interval	36 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence	17 DE-1	29 DE-1	29 DE-1	29 DE-1
ARM Action Codes				
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Appl Code	Appl Description	9*	10*	11*	12*
1 Untreated Check		D		33-	53b	53-	63a
2 Roundup PowerMax	32 fl oz/a A		Fall Application	100-	57b	50-	53a
2 Preview 2:1 SC	20 fl oz/a A		Fall Application				
2 N Pak AMS	2.5% v/v A		Fall Application				
2 InterMoc / KFD-235-02	29 fl oz/a C		Early Post Application				
2 NIS	0.25% v/v C		Early Post Application				
2 N Pak AMS	6% v/v C		Early Post Application				
2 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
2 NIS	0.25% v/v E		Late Post Application				
2 N Pak AMS	6% v/v E		Late Post Application				
3 Roundup PowerMax	32 fl oz/a A		Fall Application	100-	60ab	53-	62a
3 Preview 2:1 SC	25 fl oz/a A		Fall Application				
3 N Pak AMS	2.5% v/v A		Fall Application				
3 InterMoc / KFD-235-02	29 fl oz/a C		Early Post Application				
3 NIS	0.25% v/v C		Early Post Application				
3 N Pak AMS	6% v/v C		Early Post Application				
3 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
3 NIS	0.25% v/v E		Late Post Application				
3 N Pak AMS	6% v/v E		Late Post Application				
4 Roundup PowerMax	32 fl oz/a A		Fall Application	100-	53b	47-	3b
4 Authority MTZ / KFD-291-02	14 oz/a A		Fall Application				
4 N Pak AMS	2.5% v/v A		Fall Application				
4 Anthem MAX	2 fl oz/a C		Early Post Application				
4 NIS	0.25% v/v C		Early Post Application				
4 N Pak AMS	6% v/v C		Early Post Application				
4 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
4 NIS	0.25% v/v E		Late Post Application				
4 N Pak AMS	6% v/v E		Late Post Application				
5 Roundup PowerMax	32 oz/a A		Fall Application	87-	77ab	68-	75a
5 Audit 1:1	0.75 oz/a A		Fall Application				
5 N Pak AMS	2.5% v/v A		Fall Application				
5 Preview 2:1 SC	20 fl oz/a B		Spring Application				
5 N Pak AMS	6% v/v B		Spring Application				
5 Interline - Lifeline / KFD-138	32 fl oz/a D		Mid Post Application				
5 NIS	0.25% v/v D		Mid Post Application				
5 N Pak AMS	6% v/v D		Mid Post Application				
5 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application				
5 NIS	0.25% v/v E		Late Post Application				
5 N Pak AMS	6% v/v E		Late Post Application				

Means followed by same letter or symbol do not significantly differ (P= .05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, the effective replicates used for mean comparisons are: col. 1-15=3
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,3,4 because error mean square = 0.
 ^ Calculated from residual.

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	ABUTH	SETFA	ECHCG	AMBTR
Pest Scientific Name	Abutilon theoph>	Setaria faberi	Echinochloa cru>	Ambrosia trifida
Pest Name	velvetleaf	Giant foxtail	common barnyard>	Giant ragweed
Crop Type, Code				
Crop Name				
Rating Date	Jun-2-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-2-2022	Jun-15-2022	Jun-15-2022	Jun-15-2022
Rating Timing	AT POST			
Days After First/Last Applic.	195, 2	207, 14	207, 14	207, 14
Trt-Eval Interval		14 DA-C	14 DA-C	14 DA-C
Plant-Eval Interval	36 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence	17 DE-1	29 DE-1	29 DE-1	29 DE-1
ARM Action Codes				
Number of Decimals	0	0	0	0
Trt Treatment	9*	10*	11*	12*
No. Name				
6Roundup PowerMax	32 fl oz/a B	Spring Application	80-	82a
6Preview 2:1 SC	20 fl oz/a B	Spring Application	75-	93a
6N Pak AMS	6% v/v B	Spring Application		
6Interline - Lifeline / KFD-138	32 fl oz/a D	Mid Post Application		
6NIS	0.25% v/v D	Mid Post Application		
6N Pak AMS	6% v/v D	Mid Post Application		
6Interline - Lifeline / KFD-138	32 fl oz/a E	Late Post Application		
6NIS	0.25% v/v E	Late Post Application		
6N Pak AMS	6% v/v E	Late Post Application		
LSD P=.05	50.2	17.9	19.6	32.2
Standard Deviation	27.6	9.8	10.8	17.7
CV	33.08	15.43	18.67	30.34
Grand Mean	83.3	63.6	57.8	58.3
Levene's F^	0.513	0.924	1.187	0.837
Levene's Prob(F)	0.762	0.499	0.372	0.548
Rank X2	.	.	.	.
P(Rank X2)	.	.	.	.
Skewness^	0.6721	0.3511	0.031	-1.0336
Kurtosis^	2.1542*	1.6982	0.5945	2.9804*
Replicate F	0.614	0.620	0.012	0.479
Replicate Prob(F)	0.5604	0.5576	0.9882	0.6331
Treatment F	2.649	4.787	3.255	8.787
Treatment Prob(F)	0.0891	0.0171	0.0530	0.0020

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, the effective replicates used for mean comparisons are: col. 1-15=3
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,3,4 because error mean square = 0.
 ^Calculated from residual.

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	CHEAL	ECHCG	AMBTR
Pest Scientific Name	Chenopodium alb>	Echinochloa cru>	Ambrosia trifida
Pest Name	common lambsqua>	common barnyard>	Giant ragweed
Crop Type, Code			
Crop Name			
Rating Date	Jun-14-2022	Jun-27-2022	Jun-27-2022
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1
Data Entry Date	Jun-15-2022	Jun-28-2022	Jun-28-2022
Rating Timing			
Days After First/Last Applic.	207, 14	220, 27	220, 27
Trt-Eval Interval	14 DA-C	27 DA-C	27 DA-C
Plant-Eval Interval	48 DP-1	61 DP-1	61 DP-1
Days After Emergence	29 DE-1	42 DE-1	42 DE-1
ARM Action Codes			
Number of Decimals	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Appl Code	Appl Description	13*	14*	15*
1 Untreated Check		D		93-	98a	100-
2 Roundup PowerMax	32 fl oz/a A		Fall Application	100-	99a	90-
2 Preview 2:1 SC	20 fl oz/a A		Fall Application			
2 N Pak AMS	2.5% v/v A		Fall Application			
2 InterMoc / KFD-235-02	29 fl oz/a C		Early Post Application			
2 NIS	0.25% v/v C		Early Post Application			
2 N Pak AMS	6% v/v C		Early Post Application			
2 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application			
2 NIS	0.25% v/v E		Late Post Application			
2 N Pak AMS	6% v/v E		Late Post Application			
3 Roundup PowerMax	32 fl oz/a A		Fall Application	100-	100a	98-
3 Preview 2:1 SC	25 fl oz/a A		Fall Application			
3 N Pak AMS	2.5% v/v A		Fall Application			
3 InterMoc / KFD-235-02	29 fl oz/a C		Early Post Application			
3 NIS	0.25% v/v C		Early Post Application			
3 N Pak AMS	6% v/v C		Early Post Application			
3 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application			
3 NIS	0.25% v/v E		Late Post Application			
3 N Pak AMS	6% v/v E		Late Post Application			
4 Roundup PowerMax	32 fl oz/a A		Fall Application	100-	78b	75-
4 Authority MTZ / KFD-291-02	14 oz/a A		Fall Application			
4 N Pak AMS	2.5% v/v A		Fall Application			
4 Anthem MAX	2 fl oz/a C		Early Post Application			
4 NIS	0.25% v/v C		Early Post Application			
4 N Pak AMS	6% v/v C		Early Post Application			
4 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application			
4 NIS	0.25% v/v E		Late Post Application			
4 N Pak AMS	6% v/v E		Late Post Application			
5 Roundup PowerMax	32 oz/a A		Fall Application	100-	98a	100-
5 Audit 1:1	0.75 oz/a A		Fall Application			
5 N Pak AMS	2.5% v/v A		Fall Application			
5 Preview 2:1 SC	20 fl oz/a B		Spring Application			
5 N Pak AMS	6% v/v B		Spring Application			
5 Interline - Lifeline / KFD-138	32 fl oz/a D		Mid Post Application			
5 NIS	0.25% v/v D		Mid Post Application			
5 N Pak AMS	6% v/v D		Mid Post Application			
5 Interline - Lifeline / KFD-138	32 fl oz/a E		Late Post Application			
5 NIS	0.25% v/v E		Late Post Application			
5 N Pak AMS	6% v/v E		Late Post Application			

Means followed by same letter or symbol do not significantly differ (P= .05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, the effective replicates used for mean comparisons are: col. 1-15=3

* Adjusted means

Could not calculate LSD (% mean diff) for columns 1,2,3,4 because error mean square = 0.

^ Calculated from residual.

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2 Cooperator Trial ID:
 Protocol ID: H21US-0X1-577-001 Location: Trial Year: 2020
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed	W, Weed	W, Weed		
Pest Code	CHEAL	ECHCG	AMBTR		
Pest Scientific Name	Chenopodium alb>	Echinochloa cru>	Ambrosia trifida		
Pest Name	common lambsqua>	common barnyard>	Giant ragweed		
Crop Type, Code					
Crop Name					
Rating Date	Jun-14-2022	Jun-27-2022	Jun-27-2022		
Rating Type	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples	1	1	1		
Data Entry Date	Jun-15-2022	Jun-28-2022	Jun-28-2022		
Rating Timing					
Days After First/Last Applic.	207, 14	220, 27	220, 27		
Trt-Eval Interval	14 DA-C	27 DA-C	27 DA-C		
Plant-Eval Interval	48 DP-1	61 DP-1	61 DP-1		
Days After Emergence	29 DE-1	42 DE-1	42 DE-1		
ARM Action Codes					
Number of Decimals	0	0	0		
Trt Treatment	13*	14*	15*		
No. Name					
Rate					
Appl					
Appl					
Description					
6 Roundup PowerMax	32 fl oz/a B	Spring Application	100-	100a	100-
6 Preview 2:1 SC	20 fl oz/a B	Spring Application			
6 N Pak AMS	6% v/v B	Spring Application			
6 Interline - Lifeline / KFD-138	32 fl oz/a D	Mid Post Application			
6 NIS	0.25% v/v D	Mid Post Application			
6 N Pak AMS	6% v/v D	Mid Post Application			
6 Interline - Lifeline / KFD-138	32 fl oz/a E	Late Post Application			
6 NIS	0.25% v/v E	Late Post Application			
6 N Pak AMS	6% v/v E	Late Post Application			
LSD P=.05	8.6	12.7	17.2		
Standard Deviation	4.7	7.0	9.4		
CV	4.77	7.27	10.04		
Grand Mean	98.9	95.7	93.9		
Levene's F^	0.533	0.941	1.056		
Levene's Prob(F)	0.747	0.489	0.431		
Rank X2	.	.	.		
P(Rank X2)	.	.	.		
Skewness^	-1.3829*	-1.1608*	-0.9216		
Kurtosis^	4.8663*	3.8288*	1.9422		
Replicate F	1.000	0.711	0.438		
Replicate Prob(F)	0.4019	0.5145	0.6574		
Treatment F	1.000	4.534	3.400		
Treatment Prob(F)	0.4651	0.0203	0.0471		

Means followed by same letter or symbol do not significantly differ (P=.05, Student-Newman-Keuls).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, the effective replicates used for mean comparisons are: col. 1-15=3
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,3,4 because error mean square = 0.
 ^Calculated from residual.

The Ohio State University

2021 FALL/SPRING//SOYBEAN/

Trial ID: 22FALLSOY2
Protocol ID: H21US-0X1-577-001 Location: Cooperator Trial ID:
Project ID: Project ID 2: Project ID 3: Trial Year: 2020
Study Director: Sponsor Contact:
Investigator (Creator): Dr. Mark M. Loux

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

LAMPU, Lamium purpureum, purple deadnettle = US
RANAB, Ranunculus abortivus, Smallflower buttercup = US
CARPE, Cardamine pensylvanica, Pennsylvania bittercress = US
AMBTR, Ambrosia trifida, Giant ragweed = US
SETFA, Setaria faberi, Giant foxtail = US
CHEAL, Chenopodium album, common lambsquarters = US
AMARE, Amaranthus retroflexus, Redroot pigweed = US
ABUTH, Abutilon theophrasti, velvetleaf = US
ECHCG, Echinochloa crus-galli, common barnyardgrass = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

0 DP-1 = 1 GLXMA Apr-27-2022
36 DP-1 = 1 GLXMA Apr-27-2022
48 DP-1 = 1 GLXMA Apr-27-2022
61 DP-1 = 1 GLXMA Apr-27-2022