

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

General Trial Information

Investigator: Dr. Mark M. Loux

Trial Status: E established
ARM Trial Created On: May-18-2020
Initiation Date: May-27-2020

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 °: 39.85873 N
Longitude of LL Corner °: -83.67108 W
Altitude of LL Corner: 1092.00 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-28-2020 **Stage Scale:** BBCH
Variety: Pioneer P33A24X
Attributes: Glyphosate, Dicamba
Seed Lot No: B3GRA13059-00-1207
% Germination: 90
Planting Date: May-27-2020 **Seed Treatment Products:** Lumigen, Ileva
Depth: 2 IN **Planting Rate:** 150000 S/A
Rows per Plot: 4 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** FE field equipment
Soil Temperature: 72 F **Soil Moisture:** NORMAL normal, adequate
Emergence Date: Jun-5-2020

Pest Description

Pest 1 Type: W **Code:** STEME Stellaria media
Common Name: Common chickweed **Entry Date:** May-28-2020
Pest 2 Type: W **Code:** SETFA Setaria faberi
Common Name: foxtail, giant **Entry Date:** May-28-2020
Pest 3 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: ragweed, giant **Entry Date:** May-28-2020
Pest 4 Type: W **Code:** ERICA Conyza canadensis
Common Name: horseweed **Entry Date:** Aug-3-2020
Pest 5 Type: W **Code:** ABUTH Abutilon theophrasti
Common Name: velvetleaf **Entry Date:** Aug-3-2020
Pest 6 Type: W **Code:** CHEAL Chenopodium album
Common Name: lambsquarters, common **Entry Date:** Aug-3-2020

Site and Design

Treated Plot Width: 10 FT **Site Type:** FIELD field
Treated Plot Length: 30 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 300 FT² **Treatments:** 10 **Tillage Type:** NOTILL no-till
Replications: 3 **Study Design:** RACOB Randomized Complete Block (RCB)

Previous

No. Crop Year
 1. SOYBEAN 2019

Soil Description

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

The Ohio State University

Trial ID: 20VALENTNT2	Location:	Trial Year: 2020
Protocol ID: Fierce	Investigator: Dr. Mark M. Loux	
Project ID:	Study Director:	
	Sponsor Contact:	

Application Description

	A	B
Application Date	May-27-2020	Jun-30-2020
Appl. Start Time	10:00 AM	12:30 PM
Appl. Stop Time	10:45 AM	1:00 PM
Application Method	SPRAY	SPRAY
Application Timing	EPOST	POST
Application Placement	BROSOI	BROFOL
Applied By	Dobbels	Dobbels
Appl. Entry Date	May-28-2020	Aug-3-2020
Air Temperature Start, Stop	73 75 F	85 85 F
% Relative Humidity Start, Stop	78 78	61 61
Wind Velocity+Dir. Start	7 MPH SSE 3	MPH NNE
Wind Velocity+Dir. Stop	7 MPH SSE 3	MPH NNE
Wind Velocity+Dir. Max	7 MPH SSE 3	MPH NNE
Wet Leaves (Y/N)	N no	N no
Soil Temperature	72 F	80 F
Soil Moisture	DRY	DRY
Soil Surface Condition	MEDIUM	MEDIUM
% Cloud Cover	15	50
Next Moisture Occurred On	May-28-2020	Jul-1-2020
Time to Next Moisture	16 HR	1 DAY
Moisture 6 Hours after Appl.	0 IN	0 IN
Moisture 1 Week after Appl.	0.96 IN	0.72 IN

Crop Stage At Each Application

	A		B	
Crop 1 Code, BBCH Scale	GLXMA	BSOY	GLXMA	BSOY
Days after Emergence	-9		25	
Stage Majority, Percent			15	90
Stage Minimum, Percent			15	90
Stage Maximum, Percent			51	10
Height Average			9	IN
Height Minimum, Maximum			8	10

The Ohio State University

Trial ID: 20VALENTNT2	Location:	Trial Year: 2020
Protocol ID: Fierce	Investigator: Dr. Mark M. Loux	
Project ID:	Study Director:	
	Sponsor Contact:	

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	STEME W	STEME W
Stage Majority, Percent	65 80	
Stage Minimum, Percent	63 10	
Stage Maximum, Percent	69 10	
Height Average	12 IN	
Height Minimum, Maximum	11 14	
Density Average	6 PLA/m2	
Density Min, Max	1 9	
Pest 2 Code, Type, Scale	SETFA W	SETFA W
Stage Majority, Percent	12 90	15 90
Stage Minimum, Percent	11 5	15 90
Stage Maximum, Percent	13 5	17 10
Height Average	1 IN	9 IN
Height Minimum, Maximum	1 1	5 15
Density Average	167 PLA/m2	187 PLA/m2
Density Min, Max	135 251	90 276
Pest 3 Code, Type, Scale	AMBTR W	AMBTR W
Stage Majority, Percent	18 80	19 100
Stage Minimum, Percent	16 10	
Stage Maximum, Percent	19 10	
Height Average	4 IN	5 IN
Height Minimum, Maximum	4 6	2 8
Density Average	3 PLA/m2	4.33 PLA/m2
Density Min, Max	1 5	3 6
Pest 4 Code, Type, Scale	ERICA W	ERICA W
Stage Majority, Percent		19 100
Height Average		6 IN
Height Minimum, Maximum		4 8
Density Average		1 PLA/m2
Density Min, Max		1 1
Pest 5 Code, Type, Scale	ABUTH W	ABUTH W
Stage Majority, Percent		15 90
Stage Minimum, Percent		13 10
Stage Maximum, Percent		15 90
Height Average		6 IN
Height Minimum, Maximum		5 8
Density Average		2.33 PLA/m2
Density Min, Max		1 3
Pest 6 Code, Type, Scale	CHEAL W	CHEAL W
Stage Majority, Percent		19 100
Height Average		4 IN
Height Minimum, Maximum		2 4
Density Average		0.33 PLA/m2
Density Min, Max		0 1

Application Equipment

	A	B
Appl. Equipment	6' TTI	10' TTI
Equipment Type	BACCAI	BACCAI
Operation Pressure	44 PSI	44 PSI
Nozzle Type	TTI	TTI
Nozzle Size	1110015	110015
Nozzle Spacing	18 IN	18 IN
Boom Length	6.67 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	1 L	2 L
Propellant	COMCO2	COMCO2
Tank Mix (Y/N)		Y yes

Context	Date	By	Notes
STATUS	May-18-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	May-28-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	SETFA	AMBTR	CHEAL
Pest Scientific Name	Erigeron canad>	Setaria faberi	Ambrosia trifi>	Chenopodium al>
Pest Name	Canada horsewe>	Giant foxtail	Giant ragweed	common lambsqu>
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name	GLXMA			
Rating Date	Jun-18-2020	Jun-18-2020	Jun-18-2020	Jun-18-2020
	0			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-22-2020	Jun-22-2020	Jun-22-2020	Jun-22-2020
	0			
Rating Timing				
Days After First/Last Applic.	22 22	22 22	22 22	22 22
Trt-Eval Interval	22 DA-A	22 DA-A	22 DA-A	22 DA-A
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	22 DP-1
Days After Emergence	13 DE-1	13 DE-1	13 DE-1	13 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	1*	2*	3*	4*	5*
1						0 -	0 b	0 d	0 c	0 b
2	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	0 -	100 a	72 c	87 ab	100 a
2	Xtendimax	0.5 lb ae/a	22 oz/a		A					
2	Induce	0.25 % v/v	0.25 % v/v		A					
2	In-Place	0.25 % v/v	0.25 % v/v		A					
2	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
2	Xtendimax	0.5 lb ae/a	22 oz/a		B					
2	Select Max	0.07 lb ai/a	9 oz/a		B					
2	Induce	0.25 % v/v	0.25 % v/v		B					
2	In-Place	0.25 % v/v	0.25 % v/v		B					
3	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	0 -	100 a	75 bc	90 ab	100 a
3	Xtendimax	0.5 lb ae/a	22 oz/a		A					
3	Induce	0.25 % v/v	0.25 % v/v		A					
3	In-Place	0.25 % v/v	0.25 % v/v		A					
3	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
3	Xtendimax	0.5 lb ae/a	22 oz/a		B					
3	Perpetuo	0.108 lb ai/a	6 oz/a		B					
3	Select Max	0.07 lb ai/a	9 oz/a		B					
3	Induce	0.25 % v/v	0.25 % v/v		B					
3	In-Place	0.25 % v/v	0.25 % v/v		B					
4	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	0 -	100 a	77 bc	90 ab	100 a
4	Xtendimax	0.5 lb ae/a	22 oz/a		A					
4	Fierce EZ	0.143 lb ai/a	6 oz/a		A					
4	Induce	0.25 % v/v	0.25 % v/v		A					
4	In-Place	0.25 % v/v	0.25 % v/v		A					
4	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
4	Xtendimax	0.5 lb ae/a	22 oz/a		B					
4	Select Max	0.07 lb ai/a	9 oz/a		B					
4	Induce	0.25 % v/v	0.25 % v/v		B					
4	In-Place	0.25 % v/v	0.25 % v/v		B					

Means followed by same letter or symbol do not significantly differ (P=0.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	SETFA	AMBTR	CHEAL
Pest Scientific Name	Erigeron canad>	Setaria faberi	Ambrosia trifi>	Chenopodium al>
Pest Name	Canada horsewe>	Giant foxtail	Giant ragweed	common lambsqu>
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name	GLXMA			
Rating Date	Jun-18-2020	Jun-18-2020	Jun-18-2020	Jun-18-2020
	0			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-22-2020	Jun-22-2020	Jun-22-2020	Jun-22-2020
	0			
Rating Timing				
Days After First/Last Applic.	22 22	22 22	22 22	22 22
Trt-Eval Interval	22 DA-A	22 DA-A	22 DA-A	22 DA-A
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	22 DP-1
Days After Emergence	13 DE-1	13 DE-1	13 DE-1	13 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Code	1*	2*	3*	4*	5*
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		A		0 -	100 a	75 bc	90 ab	100 a
5	Xtendimax	0.5 lb ae/a	22 oz/a		A						
5	Fierce MTZ	0.33 lb ai/a	1 pt/a		A						
5	Induce	0.25 % v/v	0.25 % v/v		A						
5	In-Place	0.25 % v/v	0.25 % v/v		A						
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		B						
5	Xtendimax	0.5 lb ae/a	22 oz/a		B						
5	Select Max	0.07 lb ai/a	9 oz/a		B						
5	Induce	0.25 % v/v	0.25 % v/v		B						
5	In-Place	0.25 % v/v	0.25 % v/v		B						
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		A		0 -	100 a	75 bc	98 a	100 a
6	Xtendimax	0.5 lb ae/a	22 oz/a		A						
6	Authority MTZ	0.31 lb ai/a	11 oz/a		A						
6	Induce	0.25 % v/v	0.25 % v/v		A						
6	In-Place	0.25 % v/v	0.25 % v/v		A						
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		B						
6	Xtendimax	0.5 lb ae/a	22 oz/a		B						
6	Anthem Maxx	0.084 lb ai/a	2.5 oz/a		B						
6	Select Max	0.07 lb ai/a	9 oz/a		B						
6	Induce	0.25 % v/v	0.25 % v/v		B						
6	In-Place	0.25 % v/v	0.25 % v/v		B						
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		A		0 -	100 a	92 a	93 ab	100 a
7	Xtendimax	0.5 lb ae/a	22 oz/a		A						
7	Zidua Pro	0.192 lb ai/a	6 oz/a		A						
7	Induce	0.25 % v/v	0.25 % v/v		A						
7	In-Place	0.25 % v/v	0.25 % v/v		A						
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		B						
7	Xtendimax	0.5 lb ae/a	22 oz/a		B						
7	Select Max	0.07 lb ai/a	9 oz/a		B						
7	Perpetuo	0.108 lb ai/a	6 oz/a		B						
7	Induce	0.25 % v/v	0.25 % v/v		B						
7	In-Place	0.25 % v/v	0.25 % v/v		B						

Means followed by same letter or symbol do not significantly differ (P=,05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	SETFA	AMBTR	CHEAL
Pest Scientific Name	Erigeron canad>	Setaria faberi	Ambrosia trifi>	Chenopodium al>
Pest Name	Canada horsewe>	Giant foxtail	Giant ragweed	common lambsqu>
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name	GLXMA			
Rating Date	Jun-18-2020	Jun-18-2020	Jun-18-2020	Jun-18-2020
	0			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-22-2020	Jun-22-2020	Jun-22-2020	Jun-22-2020
	0			
Rating Timing				
Days After First/Last Applic.	22 22	22 22	22 22	22 22
Trt-Eval Interval	22 DA-A	22 DA-A	22 DA-A	22 DA-A
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	22 DP-1
Days After Emergence	13 DE-1	13 DE-1	13 DE-1	13 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Code	1*	2*	3*	4*	5*
8	Roundup Powermax	1.13 lb ae/a	32 oz/a		A		0 -	100 a	82 b	80 b	100 a
8	Xtendimax	0.5 lb ae/a	22 oz/a		A						
8	Fierce EZ	0.143 lb ai/a	6 oz/a		A						
8	Induce	0.25 % v/v	0.25 % v/v		A						
8	In-Place	0.25 % v/v	0.25 % v/v		A						
8	Roundup Powermax	1.13 lb ae/a	32 oz/a		B						
8	Xtendimax	0.5 lb ae/a	22 oz/a		B						
8	Perpetuo	0.108 lb ai/a	6 oz/a		B						
8	Select Max	0.07 lb ai/a	9 oz/a		B						
8	Induce	0.25 % v/v	0.25 % v/v		B						
8	In-Place	0.25 % v/v	0.25 % v/v		B						
9	Roundup Powermax	1.13 lb ae/a	32 oz/a		A		0 -	100 a	78 bc	88 ab	100 a
9	Xtendimax	0.5 lb ae/a	22 oz/a		A						
9	Fierce MTZ	0.33 lb ai/a	1 pt/a		A						
9	Induce	0.25 % v/v	0.25 % v/v		A						
9	In-Place	0.25 % v/v	0.25 % v/v		A						
9	Roundup Powermax	1.13 lb ae/a	32 oz/a		B						
9	Xtendimax	0.5 lb ae/a	22 oz/a		B						
9	Perpetuo	0.108 lb ai/a	6 oz/a		B						
9	Select Max	0.07 lb ai/a	9 oz/a		B						
9	Induce	0.25 % v/v	0.25 % v/v		B						
9	In-Place	0.25 % v/v	0.25 % v/v		B						

Means followed by same letter or symbol do not significantly differ (P=0.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	SETFA	AMBTR	CHEAL
Pest Scientific Name	Erigeron canad>	Setaria faberi	Ambrosia trifi>	Chenopodium al>
Pest Name	Canada horsewe>	Giant foxtail	Giant ragweed	common lambsqu>
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name	GLXMA			
Rating Date	Jun-18-2020	Jun-18-2020	Jun-18-2020	Jun-18-2020
	0			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-22-2020	Jun-22-2020	Jun-22-2020	Jun-22-2020
	0			
Rating Timing				
Days After First/Last Applic.	22 22	22 22	22 22	22 22
Trt-Eval Interval	22 DA-A	22 DA-A	22 DA-A	22 DA-A
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	22 DP-1
Days After Emergence	13 DE-1	13 DE-1	13 DE-1	13 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Code	1*	2*	3*	4*	5*
10	Roundup Powermax	1.13 lb ae/a	32 oz/a		A		0 -	100 a	83 ab	88 ab	100 a
10	Xtendimax	0.5 lb ae/a	22 oz/a		A						
10	Fierce XLT	0.156 lb ai/a	4 oz/a		A						
10	Induce	0.25 % v/v	0.25 % v/v		A						
10	In-Place	0.25 % v/v	0.25 % v/v		A						
10	Roundup Powermax	1.13 lb ae/a	32 oz/a		B						
10	Xtendimax	0.5 lb ae/a	22 oz/a		B						
10	Select Max	0.07 lb ai/a	9 oz/a		B						
10	Induce	0.25 % v/v	0.25 % v/v		B						
10	In-Place	0.25 % v/v	0.25 % v/v		B						
LSD P=.05									9.7	16.2	
Standard Deviation							0.0	0.0	5.6	9.4	0.0
CV							0.0	0.0	7.99	11.79	0.0
Grand Mean							0.0	89.7	70.3	80.0	89.7
Levene's F							0.00	0.00	0.507	0.389	0.00
Levene's Prob(F)							.	.	0.852	0.926	.
Rank X2							.	.	.	.	.
P(Rank X2)							.	.	.	.	.
Skewness							.	-2.7485*	-2.3535*	-2.2023*	-2.7485*
Kurtosis							.	5.9614*	4.6705*	4.0948*	5.9614*
Replicate F							0.000	0.000	0.145	3.114	0.000
Replicate Prob(F)							1.0000	1.0000	0.8659	0.0704	1.0000
Treatment F							0.000	0.000	61.245	27.515	0.000
Treatment Prob(F)							1.0000	1.0000	0.0001	0.0001	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	SETFA	AMBTR	CHEAL	AMARE
Pest Scientific Name	Erigeron canad>	Setaria Ambrosia trifi>	Chenopodium al>	Amaranthus ret>	
Pest Name	Canada horsewe>	Giant foxtail	Giant ragweed common lambsqu>	Redroot pigweed	
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Timing	AT POST	AT POST	AT POST	AT POST	AT POST
Days After First/Last Applic.	34 34	34 34	34 34	34 34	34 34
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	34 DP-1	34 DP-1
Days After Emergence	25 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1
Number of Decimals	0	0	0	0	0

Trt	Treatment	Rate	Other	Other	Appl	6*	7*	8*	9*	10*	
No.	Name	Rate	Unit	Rate	Unit	Code					
1							0 c	0 d	0 b	0 b	0 c
2	Roundup Powermax	1.13 lb	ae/a	32 oz/a	A		100 ab	63 abc	80 a	100 a	32 c
	2 Xtendimax	0.5 lb	ae/a	22 oz/a	A						
	2 Induce	0.25 %	v/v	0.25 %	v/v	A					
	2 In-Place	0.25 %	v/v	0.25 %	v/v	A					
	2 Roundup Powermax	1.13 lb	ae/a	32 oz/a	B						
	2 Xtendimax	0.5 lb	ae/a	22 oz/a	B						
	2 Select Max	0.07 lb	ai/a	9 oz/a	B						
	2 Induce	0.25 %	v/v	0.25 %	v/v	B					
	2 In-Place	0.25 %	v/v	0.25 %	v/v	B					
3	Roundup Powermax	1.13 lb	ae/a	32 oz/a	A		100 ab	50 c	73 a	100 a	27 c
	3 Xtendimax	0.5 lb	ae/a	22 oz/a	A						
	3 Induce	0.25 %	v/v	0.25 %	v/v	A					
	3 In-Place	0.25 %	v/v	0.25 %	v/v	A					
	3 Roundup Powermax	1.13 lb	ae/a	32 oz/a	B						
	3 Xtendimax	0.5 lb	ae/a	22 oz/a	B						
	3 Perpetuo	0.108 lb	ai/a	6 oz/a	B						
	3 Select Max	0.07 lb	ai/a	9 oz/a	B						
	3 Induce	0.25 %	v/v	0.25 %	v/v	B					
	3 In-Place	0.25 %	v/v	0.25 %	v/v	B					
4	Roundup Powermax	1.13 lb	ae/a	32 oz/a	A		100 a	67 ab	73 a	100 a	73 b
	4 Xtendimax	0.5 lb	ae/a	22 oz/a	A						
	4 Fierce EZ	0.143 lb	ai/a	6 oz/a	A						
	4 Induce	0.25 %	v/v	0.25 %	v/v	A					
	4 In-Place	0.25 %	v/v	0.25 %	v/v	A					
	4 Roundup Powermax	1.13 lb	ae/a	32 oz/a	B						
	4 Xtendimax	0.5 lb	ae/a	22 oz/a	B						
	4 Select Max	0.07 lb	ai/a	9 oz/a	B						
	4 Induce	0.25 %	v/v	0.25 %	v/v	B					
	4 In-Place	0.25 %	v/v	0.25 %	v/v	B					

Means followed by same letter or symbol do not significantly differ (P=,05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	SETFA	AMBTR	CHEAL	AMARE
Pest Scientific Name	Erigeron canad>	Setaria Ambrosia trifi>	Chenopodium al>	Amaranthus ret>	
Pest Name	Canada horsewe>	Giant foxtail	Giant ragweed common lambsqu>	Redroot pigweed	
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Timing	AT POST	AT POST	AT POST	AT POST	AT POST
Days After First/Last Applic.	34 34	34 34	34 34	34 34	34 34
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	34 DP-1	34 DP-1
Days After Emergence	25 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	6*	7*	8*	9*	10*
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	97 b	63 abc	63 a	100 a	97 ab
5	Xtendimax	0.5 lb ae/a	22 oz/a		A					
5	Fierce MTZ	0.33 lb ai/a	1 pt/a		A					
5	Induce	0.25 % v/v	0.25 % v/v		A					
5	In-Place	0.25 % v/v	0.25 % v/v		A					
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
5	Xtendimax	0.5 lb ae/a	22 oz/a		B					
5	Select Max	0.07 lb ai/a	9 oz/a		B					
5	Induce	0.25 % v/v	0.25 % v/v		B					
5	In-Place	0.25 % v/v	0.25 % v/v		B					
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 ab	57 bc	77 a	100 a	100 ab
6	Xtendimax	0.5 lb ae/a	22 oz/a		A					
6	Authority MTZ	0.31 lb ai/a	11 oz/a		A					
6	Induce	0.25 % v/v	0.25 % v/v		A					
6	In-Place	0.25 % v/v	0.25 % v/v		A					
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
6	Xtendimax	0.5 lb ae/a	22 oz/a		B					
6	Anthem Maxx	0.084 lb ai/a	2.5 oz/a		B					
6	Select Max	0.07 lb ai/a	9 oz/a		B					
6	Induce	0.25 % v/v	0.25 % v/v		B					
6	In-Place	0.25 % v/v	0.25 % v/v		B					
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 ab	77 a	77 a	100 a	97 ab
7	Xtendimax	0.5 lb ae/a	22 oz/a		A					
7	Zidua Pro	0.192 lb ai/a	6 oz/a		A					
7	Induce	0.25 % v/v	0.25 % v/v		A					
7	In-Place	0.25 % v/v	0.25 % v/v		A					
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
7	Xtendimax	0.5 lb ae/a	22 oz/a		B					
7	Select Max	0.07 lb ai/a	9 oz/a		B					
7	Perpetuo	0.108 lb ai/a	6 oz/a		B					
7	Induce	0.25 % v/v	0.25 % v/v		B					
7	In-Place	0.25 % v/v	0.25 % v/v		B					

Means followed by same letter or symbol do not significantly differ (P=,05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	SETFA	AMBTR	CHEAL	AMARE
Pest Scientific Name	Erigeron canad>	Setaria Ambrosia trifi>	Chenopodium al>	Amaranthus ret>	
Pest Name	Canada horsewe>	Giant foxtail	Giant ragweed common	lambsqu>	Redroot pigweed
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Timing	AT POST	AT POST	AT POST	AT POST	AT POST
Days After First/Last Applic.	34 34	34 34	34 34	34 34	34 34
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	34 DP-1	34 DP-1
Days After Emergence	25 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	6*	7*	8*	9*	10*
8	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 ab	67 ab	50 a	100 a	104 ab
8	Xtendimax	0.5 lb ae/a	22 oz/a		A					
8	Fierce EZ	0.143 lb ai/a	6 oz/a		A					
8	Induce	0.25 % v/v	0.25 % v/v		A					
8	In-Place	0.25 % v/v	0.25 % v/v		A					
8	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
8	Xtendimax	0.5 lb ae/a	22 oz/a		B					
8	Perpetuo	0.108 lb ai/a	6 oz/a		B					
8	Select Max	0.07 lb ai/a	9 oz/a		B					
8	Induce	0.25 % v/v	0.25 % v/v		B					
8	In-Place	0.25 % v/v	0.25 % v/v		B					
9	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 ab	70 ab	60 a	100 a	77 b
9	Xtendimax	0.5 lb ae/a	22 oz/a		A					
9	Fierce MTZ	0.33 lb ai/a	1 pt/a		A					
9	Induce	0.25 % v/v	0.25 % v/v		A					
9	In-Place	0.25 % v/v	0.25 % v/v		A					
9	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
9	Xtendimax	0.5 lb ae/a	22 oz/a		B					
9	Perpetuo	0.108 lb ai/a	6 oz/a		B					
9	Select Max	0.07 lb ai/a	9 oz/a		B					
9	Induce	0.25 % v/v	0.25 % v/v		B					
9	In-Place	0.25 % v/v	0.25 % v/v		B					

Means followed by same letter or symbol do not significantly differ (P=,05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ERICA	SETFA	AMBTR	CHEAL	AMARE
Pest Scientific Name	Erigeron canad>	Setaria Ambrosia trifi>	Chenopodium al>	Amaranthus ret>	
Pest Name	Canada horsewe>	Giant foxtail	Giant ragweed common lambsqu>	Redroot pigweed	
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Timing	AT POST	AT POST	AT POST	AT POST	AT POST
Days After First/Last Applic.	34 34	34 34	34 34	34 34	34 34
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A
Plant-Eval Interval	34 DP-1	34 DP-1	34 DP-1	34 DP-1	34 DP-1
Days After Emergence	25 DE-1	25 DE-1	25 DE-1	25 DE-1	25 DE-1
Number of Decimals	0	0	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Other Rate	Other Rate Unit	Appl Code	6*	7*	8*	9*	10*
10 Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 ab	69 ab	53 a	100 a	104 a
10 Xtendimax	0.5 lb ae/a	22 oz/a		A					
10 Fierce XLT	0.156 lb ai/a	4 oz/a		A					
10 Induce	0.25 % v/v	0.25 % v/v		A					
10 In-Place	0.25 % v/v	0.25 % v/v		A					
10 Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
10 Xtendimax	0.5 lb ae/a	22 oz/a		B					
10 Select Max	0.07 lb ai/a	9 oz/a		B					
10 Induce	0.25 % v/v	0.25 % v/v		B					
10 In-Place	0.25 % v/v	0.25 % v/v		B					
LSD P=.05					3.2	16.0	33.9	.	26.9
Standard Deviation					1.9	9.3	19.7	0.0	15.0
CV					2.09	16.02	32.45	0.0	21.69
Grand Mean					89.3	57.9	60.7	89.7	69.1
Levene's F					0.946	0.529	0.839	0.00	1.903
Levene's Prob(F)					0.51	0.836	0.591	.	0.145
Rank X2					.	.	.	.	.
P(Rank X2)					.	.	.	.	.
Skewness					-2.731*	-1.7618*	-0.7289	-2.7485*	-0.8689
Kurtosis					5.8963*	2.4487*	0.1672	5.9614*	-0.9381
Replicate F					1.063	1.949	1.212	0.000	1.469
Replicate Prob(F)					0.3675	0.1730	0.3220	1.0000	0.2720
Treatment F					851.685	16.352	4.370	0.000	15.841
Treatment Prob(F)					0.0001	0.0001	0.0044	1.0000	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ABUTH	ERICA	SETFA	AMBTR
Pest Scientific Name	Abutilon theop>	Erigeron canad>	Setaria faberi	Ambrosia trifi>
Pest Name	velvetleaf	Canada horsewe>	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	Jun-30-2020	Jul-7-2020	Jul-7-2020	Jul-7-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-30-2020	Jul-7-2020	Jul-7-2020	Jul-7-2020
Rating Timing	AT POST			
Days After First/Last Applic.	34 34	41 7	41 7	41 7
Trt-Eval Interval	34 DA-A	41 DA-A	41 DA-A	41 DA-A
Plant-Eval Interval	34 DP-1	41 DP-1	41 DP-1	41 DP-1
Days After Emergence	25 DE-1	32 DE-1	32 DE-1	32 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	11*	12*	13*	14*	15*
1							0 b	0 e	0 b	0 c	0 b
2	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	-2 b	2 cd	100 a	97 ab	95 a
2	Xtendimax	0.5 lb	ae/a	22 oz/a		A					
2	Induce	0.25 %	v/v	0.25 %	v/v	A					
2	In-Place	0.25 %	v/v	0.25 %	v/v	A					
2	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
2	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
2	Select Max	0.07 lb	ai/a	9 oz/a		B					
2	Induce	0.25 %	v/v	0.25 %	v/v	B					
2	In-Place	0.25 %	v/v	0.25 %	v/v	B					
3	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	31 b	4 a	100 a	97 b	95 a
3	Xtendimax	0.5 lb	ae/a	22 oz/a		A					
3	Induce	0.25 %	v/v	0.25 %	v/v	A					
3	In-Place	0.25 %	v/v	0.25 %	v/v	A					
3	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
3	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
3	Perpetuo	0.108 lb	ai/a	6 oz/a		B					
3	Select Max	0.07 lb	ai/a	9 oz/a		B					
3	Induce	0.25 %	v/v	0.25 %	v/v	B					
3	In-Place	0.25 %	v/v	0.25 %	v/v	B					
4	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	100 a	1 d	100 a	98 ab	95 a
4	Xtendimax	0.5 lb	ae/a	22 oz/a		A					
4	Fierce EZ	0.143 lb	ai/a	6 oz/a		A					
4	Induce	0.25 %	v/v	0.25 %	v/v	A					
4	In-Place	0.25 %	v/v	0.25 %	v/v	A					
4	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
4	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
4	Select Max	0.07 lb	ai/a	9 oz/a		B					
4	Induce	0.25 %	v/v	0.25 %	v/v	B					
4	In-Place	0.25 %	v/v	0.25 %	v/v	B					

Means followed by same letter or symbol do not significantly differ (P=0.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ABUTH	ERICA	SETFA	AMBTR
Pest Scientific Name	Abutilon theop>	Erigeron canad>	Setaria faberi	Ambrosia trifi>
Pest Name	velvetleaf	Canada horsewe>	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	Jun-30-2020	Jul-7-2020	Jul-7-2020	Jul-7-2020
Rating Type	CONTRO	PHYNEC	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-30-2020	Jul-7-2020	Jul-7-2020	Jul-7-2020
Rating Timing	AT POST			
Days After First/Last Applic.	34 34	41 7	41 7	41 7
Trt-Eval Interval	34 DA-A	41 DA-A	41 DA-A	41 DA-A
Plant-Eval Interval	34 DP-1	41 DP-1	41 DP-1	41 DP-1
Days After Emergence	25 DE-1	32 DE-1	32 DE-1	32 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Unit	Appl Unit Code	11*	12*	13*	14*	15*
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 a	2 cd	100 a	99 ab	95 a
5	Xtendimax	0.5 lb ae/a	22 oz/a		A					
5	Fierce MTZ	0.33 lb ai/a	1 pt/a		A					
5	Induce	0.25 % v/v	0.25 % v/v		A					
5	In-Place	0.25 % v/v	0.25 % v/v		A					
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
5	Xtendimax	0.5 lb ae/a	22 oz/a		B					
5	Select Max	0.07 lb ai/a	9 oz/a		B					
5	Induce	0.25 % v/v	0.25 % v/v		B					
5	In-Place	0.25 % v/v	0.25 % v/v		B					
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	80 a	4 a	100 a	99 ab	95 a
6	Xtendimax	0.5 lb ae/a	22 oz/a		A					
6	Authority MTZ	0.31 lb ai/a	11 oz/a		A					
6	Induce	0.25 % v/v	0.25 % v/v		A					
6	In-Place	0.25 % v/v	0.25 % v/v		A					
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
6	Xtendimax	0.5 lb ae/a	22 oz/a		B					
6	Anthem Maxx	0.084 lb ai/a	2.5 oz/a		B					
6	Select Max	0.07 lb ai/a	9 oz/a		B					
6	Induce	0.25 % v/v	0.25 % v/v		B					
6	In-Place	0.25 % v/v	0.25 % v/v		B					
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	101 a	3 bc	100 a	99 ab	97 a
7	Xtendimax	0.5 lb ae/a	22 oz/a		A					
7	Zidua Pro	0.192 lb ai/a	6 oz/a		A					
7	Induce	0.25 % v/v	0.25 % v/v		A					
7	In-Place	0.25 % v/v	0.25 % v/v		A					
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
7	Xtendimax	0.5 lb ae/a	22 oz/a		B					
7	Select Max	0.07 lb ai/a	9 oz/a		B					
7	Perpetuo	0.108 lb ai/a	6 oz/a		B					
7	Induce	0.25 % v/v	0.25 % v/v		B					
7	In-Place	0.25 % v/v	0.25 % v/v		B					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ABUTH	ERICA	SETFA	AMBTR
Pest Scientific Name	Abutilon theop>	Erigeron canad>	Setaria faberi	Ambrosia trifi>
Pest Name	velvetleaf	Canada horsewe>	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	Jun-30-2020	Jul-7-2020	Jul-7-2020	Jul-7-2020
Rating Type	CONTRO	PHYNEC	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-30-2020	Jul-7-2020	Jul-7-2020	Jul-7-2020
Rating Timing	AT POST			
Days After First/Last Applic.	34 34	41 7	41 7	41 7
Trt-Eval Interval	34 DA-A	41 DA-A	41 DA-A	41 DA-A
Plant-Eval Interval	34 DP-1	41 DP-1	41 DP-1	41 DP-1
Days After Emergence	25 DE-1	32 DE-1	32 DE-1	32 DE-1
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Rate	Other Rate	Other Rate	Unit	Unit	Appl Code	11*	12*	13*	14*	15*
8 Roundup Powermax	1.13 lb ae/a	32 oz/a		ae/a	oz/a	A	101 a	4 ab	100 a	99 ab	93 a
8 Xtendimax	0.5 lb ae/a	22 oz/a		ae/a	oz/a	A					
8 Fierce EZ	0.143 lb ai/a	6 oz/a		ai/a	oz/a	A					
8 Induce	0.25 % v/v	0.25 % v/v		% v/v	% v/v	A					
8 In-Place	0.25 % v/v	0.25 % v/v		% v/v	% v/v	A					
8 Roundup Powermax	1.13 lb ae/a	32 oz/a		ae/a	oz/a	B					
8 Xtendimax	0.5 lb ae/a	22 oz/a		ae/a	oz/a	B					
8 Perpetuo	0.108 lb ai/a	6 oz/a		ai/a	oz/a	B					
8 Select Max	0.07 lb ai/a	9 oz/a		ai/a	oz/a	B					
8 Induce	0.25 % v/v	0.25 % v/v		% v/v	% v/v	B					
8 In-Place	0.25 % v/v	0.25 % v/v		% v/v	% v/v	B					
9 Roundup Powermax	1.13 lb ae/a	32 oz/a		ae/a	oz/a	A	76 a	5 a	100 a	100 ab	98 a
9 Xtendimax	0.5 lb ae/a	22 oz/a		ae/a	oz/a	A					
9 Fierce MTZ	0.33 lb ai/a	1 pt/a		ai/a	pt/a	A					
9 Induce	0.25 % v/v	0.25 % v/v		% v/v	% v/v	A					
9 In-Place	0.25 % v/v	0.25 % v/v		% v/v	% v/v	A					
9 Roundup Powermax	1.13 lb ae/a	32 oz/a		ae/a	oz/a	B					
9 Xtendimax	0.5 lb ae/a	22 oz/a		ae/a	oz/a	B					
9 Perpetuo	0.108 lb ai/a	6 oz/a		ai/a	oz/a	B					
9 Select Max	0.07 lb ai/a	9 oz/a		ai/a	oz/a	B					
9 Induce	0.25 % v/v	0.25 % v/v		% v/v	% v/v	B					
9 In-Place	0.25 % v/v	0.25 % v/v		% v/v	% v/v	B					

Means followed by same letter or symbol do not significantly differ (P=,05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	ABUTH	ERICA	SETFA	AMBTR
Pest Scientific Name	Abutilon theop>	Erigeron canad>	Setaria faberi	Ambrosia trifi>
Pest Name	velvetleaf	Canada horsewe>	Giant foxtail	Giant ragweed
Crop Type, Code	C GLXMA			
BBCH Scale	BSOY			
Crop Scientific Name	Glycine max			
Crop Name	Soybean			
Rating Date	Jun-30-2020	Jul-7-2020	Jul-7-2020	Jul-7-2020
Rating Type	CONTRO	PHYNEC	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jun-30-2020	Jul-7-2020	Jul-7-2020	Jul-7-2020
Rating Timing	AT POST			
Days After First/Last Applic.	34 34	41 7	41 7	41 7
Trt-Eval Interval	34 DA-A	41 DA-A	41 DA-A	41 DA-A
Plant-Eval Interval	34 DP-1	41 DP-1	41 DP-1	41 DP-1
Days After Emergence	25 DE-1	32 DE-1	32 DE-1	32 DE-1
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Rate	Other Rate	Other Rate	Appl Unit Code	11*	12*	13*	14*	15*
10 Roundup Powermax	1.13 lb ae/a	32 oz/a		A	98 a	3 bc	100 a	100 a	93 a
10 Xtendimax	0.5 lb ae/a	22 oz/a		A					
10 Fierce XLT	0.156 lb ai/a	4 oz/a		A					
10 Induce	0.25 % v/v	0.25 % v/v		A					
10 In-Place	0.25 % v/v	0.25 % v/v		A					
10 Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
10 Xtendimax	0.5 lb ae/a	22 oz/a		B					
10 Select Max	0.07 lb ai/a	9 oz/a		B					
10 Induce	0.25 % v/v	0.25 % v/v		B					
10 In-Place	0.25 % v/v	0.25 % v/v		B					
LSD P=.05					39.0	1.3	0.4	2.7	5.5
Standard Deviation					21.7	0.8	0.2	1.6	3.2
CV					30.26	26.41	0.28	1.76	3.72
Grand Mean					71.7	2.9	89.6	88.3	85.3
Levene's F					1.988	0.449	0.837	0.479	1.231
Levene's Prob(F)					0.13	0.891	0.592	0.871	0.334
Rank X2					.	.	.	.	.
P(Rank X2)					.	.	.	.	.
Skewness					-1.0217*	-0.1796	-2.7481*	-2.7339*	-2.6941*
Kurtosis					-0.7794	-0.6685	5.9602*	5.9106*	5.7754*
Replicate F					0.281	2.005	2.429	1.684	1.882
Replicate Prob(F)					0.7606	0.1652	0.1181	0.2152	0.1827
Treatment F					7.986	12.344	48915.746	1203.259	269.809
Treatment Prob(F)					0.0011	0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	CHEAL	AMARE	ABUTH	ERICA	SETFA
Pest Scientific Name	Chenopodium al-	Amaranthus ret>	Abutilon theop>	Conyza canad>	Setaria faberi
Pest Name	common lambsqu>	Redroot pigweed	velvetleaf	horseweed	foxtail, giant
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-20-2020	Jul-20-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-20-2020	Jul-20-2020
Rating Timing					
Days After First/Last Applic.	41 7	41 7	41 7	54 20	54 20
Trt-Eval Interval	41 DA-A	41 DA-A	41 DA-A	54 DA-A	54 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	54 DP-1	54 DP-1
Days After Emergence	32 DE-1	32 DE-1	32 DE-1	45 DE-1	45 DE-1
Number of Decimals	0	0	0	0	0

Trt	Treatment	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	16*	17*	18*	19*	20*
1							0 c	0 b	0 b	0 c	0 c
2	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	100 ab	98 a	98 a	100 ab	100 a
2	Xtendimax	0.5 lb	ae/a	22 oz/a		A					
2	Induce	0.25 %	v/v	0.25 %	v/v	A					
2	In-Place	0.25 %	v/v	0.25 %	v/v	A					
2	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
2	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
2	Select Max	0.07 lb	ai/a	9 oz/a		B					
2	Induce	0.25 %	v/v	0.25 %	v/v	B					
2	In-Place	0.25 %	v/v	0.25 %	v/v	B					
3	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	98 b	98 a	98 a	100 ab	100 b
3	Xtendimax	0.5 lb	ae/a	22 oz/a		A					
3	Induce	0.25 %	v/v	0.25 %	v/v	A					
3	In-Place	0.25 %	v/v	0.25 %	v/v	A					
3	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
3	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
3	Perpetuo	0.108 lb	ai/a	6 oz/a		B					
3	Select Max	0.07 lb	ai/a	9 oz/a		B					
3	Induce	0.25 %	v/v	0.25 %	v/v	B					
3	In-Place	0.25 %	v/v	0.25 %	v/v	B					
4	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	100 ab	98 a	98 a	100 a	100 a
4	Xtendimax	0.5 lb	ae/a	22 oz/a		A					
4	Fierce EZ	0.143 lb	ai/a	6 oz/a		A					
4	Induce	0.25 %	v/v	0.25 %	v/v	A					
4	In-Place	0.25 %	v/v	0.25 %	v/v	A					
4	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
4	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
4	Select Max	0.07 lb	ai/a	9 oz/a		B					
4	Induce	0.25 %	v/v	0.25 %	v/v	B					
4	In-Place	0.25 %	v/v	0.25 %	v/v	B					

Means followed by same letter or symbol do not significantly differ (P=,05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	CHEAL	AMARE	ABUTH	ERICA	SETFA
Pest Scientific Name	Chenopodium al-	Amaranthus ret-	Abutilon theop-	Conyza canaden-	Setaria faberi
Pest Name	common lambsqu-	Redroot pigweed	velvetleaf	horseweed	foxtail, giant
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-20-2020	Jul-20-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-20-2020	Jul-20-2020
Rating Timing					
Days After First/Last Applic.	41 7	41 7	41 7	54 20	54 20
Trt-Eval Interval	41 DA-A	41 DA-A	41 DA-A	54 DA-A	54 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	54 DP-1	54 DP-1
Days After Emergence	32 DE-1	32 DE-1	32 DE-1	45 DE-1	45 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	16*	17*	18*	19*	20*
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 ab	100 a	100 a	100 a	100 a
5	Xtendimax	0.5 lb ae/a	22 oz/a		A					
5	Fierce MTZ	0.33 lb ai/a	1 pt/a		A					
5	Induce	0.25 % v/v	0.25 % v/v		A					
5	In-Place	0.25 % v/v	0.25 % v/v		A					
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
5	Xtendimax	0.5 lb ae/a	22 oz/a		B					
5	Select Max	0.07 lb ai/a	9 oz/a		B					
5	Induce	0.25 % v/v	0.25 % v/v		B					
5	In-Place	0.25 % v/v	0.25 % v/v		B					
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 ab	100 a	100 a	99 b	100 a
6	Xtendimax	0.5 lb ae/a	22 oz/a		A					
6	Authority MTZ	0.31 lb ai/a	11 oz/a		A					
6	Induce	0.25 % v/v	0.25 % v/v		A					
6	In-Place	0.25 % v/v	0.25 % v/v		A					
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
6	Xtendimax	0.5 lb ae/a	22 oz/a		B					
6	Anthem Maxx	0.084 lb ai/a	2.5 oz/a		B					
6	Select Max	0.07 lb ai/a	9 oz/a		B					
6	Induce	0.25 % v/v	0.25 % v/v		B					
6	In-Place	0.25 % v/v	0.25 % v/v		B					
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 ab	100 a	100 a	100 a	100 a
7	Xtendimax	0.5 lb ae/a	22 oz/a		A					
7	Zidua Pro	0.192 lb ai/a	6 oz/a		A					
7	Induce	0.25 % v/v	0.25 % v/v		A					
7	In-Place	0.25 % v/v	0.25 % v/v		A					
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
7	Xtendimax	0.5 lb ae/a	22 oz/a		B					
7	Select Max	0.07 lb ai/a	9 oz/a		B					
7	Perpetuo	0.108 lb ai/a	6 oz/a		B					
7	Induce	0.25 % v/v	0.25 % v/v		B					
7	In-Place	0.25 % v/v	0.25 % v/v		B					

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	CHEAL	AMARE	ABUTH	ERICA	SETFA
Pest Scientific Name	Chenopodium al-	Amaranthus ret>	Abutilon theop>	Conyza canaden>	Setaria faberi
Pest Name	common lambsqu>	Redroot pigweed	velvetleaf	horseweed	foxtail, giant
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-20-2020	Jul-20-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-20-2020	Jul-20-2020
Rating Timing					
Days After First/Last Applic.	41 7	41 7	41 7	54 20	54 20
Trt-Eval Interval	41 DA-A	41 DA-A	41 DA-A	54 DA-A	54 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	54 DP-1	54 DP-1
Days After Emergence	32 DE-1	32 DE-1	32 DE-1	45 DE-1	45 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	16*	17*	18*	19*	20*
8	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	100 ab	100 a	100 a	100 ab	100 a
8	Xtendimax	0.5 lb	ae/a	22 oz/a		A					
8	Fierce EZ	0.143 lb	ai/a	6 oz/a		A					
8	Induce	0.25 %	v/v	0.25 %	v/v	A					
8	In-Place	0.25 %	v/v	0.25 %	v/v	A					
8	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
8	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
8	Perpetuo	0.108 lb	ai/a	6 oz/a		B					
8	Select Max	0.07 lb	ai/a	9 oz/a		B					
8	Induce	0.25 %	v/v	0.25 %	v/v	B					
8	In-Place	0.25 %	v/v	0.25 %	v/v	B					
9	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	100 ab	100 a	100 a	100 ab	100 a
9	Xtendimax	0.5 lb	ae/a	22 oz/a		A					
9	Fierce MTZ	0.33 lb	ai/a	1 pt/a		A					
9	Induce	0.25 %	v/v	0.25 %	v/v	A					
9	In-Place	0.25 %	v/v	0.25 %	v/v	A					
9	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B					
9	Xtendimax	0.5 lb	ae/a	22 oz/a		B					
9	Perpetuo	0.108 lb	ai/a	6 oz/a		B					
9	Select Max	0.07 lb	ai/a	9 oz/a		B					
9	Induce	0.25 %	v/v	0.25 %	v/v	B					
9	In-Place	0.25 %	v/v	0.25 %	v/v	B					

Means followed by same letter or symbol do not significantly differ (P=0.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	CHEAL	AMARE	ABUTH	ERICA	SETFA
Pest Scientific Name	Chenopodium al-	Amaranthus ret-	Abutilon theop-	Conyza canad-	Setaria fabri
Pest Name	common lambsq-	Redroot pigweed	velvetleaf	horseweed	foxtail, giant
Crop Type, Code					
BBCH Scale					
Crop Scientific Name					
Crop Name					
Rating Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-20-2020	Jul-20-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-20-2020	Jul-20-2020
Rating Timing					
Days After First/Last Applic.	41 7	41 7	41 7	54 20	54 20
Trt-Eval Interval	41 DA-A	41 DA-A	41 DA-A	54 DA-A	54 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	54 DP-1	54 DP-1
Days After Emergence	32 DE-1	32 DE-1	32 DE-1	45 DE-1	45 DE-1
Number of Decimals	0	0	0	0	0

Trt Treatment No. Name	Rate	Other Rate	Other Rate	Appl Unit Code	16*	17*	18*	19*	20*
10 Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 a	100 a	100 a	100 a	100 ab
10 Xtendimax	0.5 lb ae/a	22 oz/a		A					
10 Fierce XLT	0.156 lb ai/a	4 oz/a		A					
10 Induce	0.25 % v/v	0.25 % v/v		A					
10 In-Place	0.25 % v/v	0.25 % v/v		A					
10 Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
10 Xtendimax	0.5 lb ae/a	22 oz/a		B					
10 Select Max	0.07 lb ai/a	9 oz/a		B					
10 Induce	0.25 % v/v	0.25 % v/v		B					
10 In-Place	0.25 % v/v	0.25 % v/v		B					
LSD P=.05					1.6	3.1	2.7	0.8	0.3
Standard Deviation					0.9	1.8	1.6	0.4	0.2
CV					1.05	2.02	1.78	0.49	0.21
Grand Mean					89.5	87.4	89.1	89.4	89.6
Levene's F					0.946	1.327	0.867	0.903	0.946
Levene's Prob(F)					0.51	0.302	0.569	0.542	0.51
Rank X2					.	.	.	.	.
P(Rank X2)					.	.	.	.	.
Skewness					-2.744*	-2.4789*	-2.7359*	-2.7471*	-2.7483*
Kurtosis					5.9453*	4.5261*	5.9168*	5.9567*	5.9608*
Replicate F					0.974	0.449	0.867	3.588	1.063
Replicate Prob(F)					0.3978	0.6480	0.4381	0.0501	0.3675
Treatment F					3385.336	931.452	1169.091	15400.371	85667.771
Treatment Prob(F)					0.0001	0.0001	0.0001	0.0001	0.0001

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	CHEAL	AMARE	ABUTH
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Amaranthus retrofractus	Abutilon theophrasti
Pest Name	ragweed, giant	lambsquarters,	pigweed, redtop	velvetleaf
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date	Jul-20-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jul-20-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020
Rating Timing				
Days After First/Last Applic.	54 20	54 20	54 20	54 20
Trt-Eval Interval	54 DA-A	54 DA-A	54 DA-A	54 DA-A
Plant-Eval Interval	54 DP-1	54 DP-1	54 DP-1	54 DP-1
Days After Emergence	45 DE-1	45 DE-1	45 DE-1	45 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	21*	22*	23*	24*
1							0 c	0 b	0 b	0 b
2	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	100 a	100 a	100 a	100 a
2	Xtendimax	0.5 lb	ae/a	22 oz/a		A				
2	Induce	0.25 %	v/v	0.25 %	v/v	A				
2	In-Place	0.25 %	v/v	0.25 %	v/v	A				
2	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B				
2	Xtendimax	0.5 lb	ae/a	22 oz/a		B				
2	Select Max	0.07 lb	ai/a	9 oz/a		B				
2	Induce	0.25 %	v/v	0.25 %	v/v	B				
2	In-Place	0.25 %	v/v	0.25 %	v/v	B				
3	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	97 b	100 a	100 a	100 a
3	Xtendimax	0.5 lb	ae/a	22 oz/a		A				
3	Induce	0.25 %	v/v	0.25 %	v/v	A				
3	In-Place	0.25 %	v/v	0.25 %	v/v	A				
3	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B				
3	Xtendimax	0.5 lb	ae/a	22 oz/a		B				
3	Perpetuo	0.108 lb	ai/a	6 oz/a		B				
3	Select Max	0.07 lb	ai/a	9 oz/a		B				
3	Induce	0.25 %	v/v	0.25 %	v/v	B				
3	In-Place	0.25 %	v/v	0.25 %	v/v	B				
4	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	100 a	100 a	100 a	100 a
4	Xtendimax	0.5 lb	ae/a	22 oz/a		A				
4	Fierce EZ	0.143 lb	ai/a	6 oz/a		A				
4	Induce	0.25 %	v/v	0.25 %	v/v	A				
4	In-Place	0.25 %	v/v	0.25 %	v/v	A				
4	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B				
4	Xtendimax	0.5 lb	ae/a	22 oz/a		B				
4	Select Max	0.07 lb	ai/a	9 oz/a		B				
4	Induce	0.25 %	v/v	0.25 %	v/v	B				
4	In-Place	0.25 %	v/v	0.25 %	v/v	B				

Means followed by same letter or symbol do not significantly differ (P=,05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	CHEAL	AMARE	ABUTH
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Amaranthus retrofractus	Abutilon theophrasti
Pest Name	ragweed, giant	lambsquarters,	pigweed, redtop	velvetleaf
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date	Jul-20-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jul-20-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020
Rating Timing				
Days After First/Last Applic.	54 20	54 20	54 20	54 20
Trt-Eval Interval	54 DA-A	54 DA-A	54 DA-A	54 DA-A
Plant-Eval Interval	54 DP-1	54 DP-1	54 DP-1	54 DP-1
Days After Emergence	45 DE-1	45 DE-1	45 DE-1	45 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit	Code	21*	22*	23*	24*
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		A		99 ab	100 a	100 a	100 a
5	Xtendimax	0.5 lb ae/a	22 oz/a		A					
5	Fierce MTZ	0.33 lb ai/a	1 pt/a		A					
5	Induce	0.25 % v/v	0.25 % v/v		A					
5	In-Place	0.25 % v/v	0.25 % v/v		A					
5	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
5	Xtendimax	0.5 lb ae/a	22 oz/a		B					
5	Select Max	0.07 lb ai/a	9 oz/a		B					
5	Induce	0.25 % v/v	0.25 % v/v		B					
5	In-Place	0.25 % v/v	0.25 % v/v		B					
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		A		100 a	100 a	100 a	100 a
6	Xtendimax	0.5 lb ae/a	22 oz/a		A					
6	Authority MTZ	0.31 lb ai/a	11 oz/a		A					
6	Induce	0.25 % v/v	0.25 % v/v		A					
6	In-Place	0.25 % v/v	0.25 % v/v		A					
6	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
6	Xtendimax	0.5 lb ae/a	22 oz/a		B					
6	Anthem Maxx	0.084 lb ai/a	2.5 oz/a		B					
6	Select Max	0.07 lb ai/a	9 oz/a		B					
6	Induce	0.25 % v/v	0.25 % v/v		B					
6	In-Place	0.25 % v/v	0.25 % v/v		B					
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		A		100 a	100 a	100 a	100 a
7	Xtendimax	0.5 lb ae/a	22 oz/a		A					
7	Zidua Pro	0.192 lb ai/a	6 oz/a		A					
7	Induce	0.25 % v/v	0.25 % v/v		A					
7	In-Place	0.25 % v/v	0.25 % v/v		A					
7	Roundup Powermax	1.13 lb ae/a	32 oz/a		B					
7	Xtendimax	0.5 lb ae/a	22 oz/a		B					
7	Select Max	0.07 lb ai/a	9 oz/a		B					
7	Perpetuo	0.108 lb ai/a	6 oz/a		B					
7	Induce	0.25 % v/v	0.25 % v/v		B					
7	In-Place	0.25 % v/v	0.25 % v/v		B					

Means followed by same letter or symbol do not significantly differ (P=,05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	CHEAL	AMARE	ABUTH
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Amaranthus retrofractus	Abutilon theophrasti
Pest Name	ragweed, giant	lambsquarters,	pigweed, redtop	velvetleaf
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date	Jul-20-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jul-20-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020
Rating Timing				
Days After First/Last Applic.	54 20	54 20	54 20	54 20
Trt-Eval Interval	54 DA-A	54 DA-A	54 DA-A	54 DA-A
Plant-Eval Interval	54 DP-1	54 DP-1	54 DP-1	54 DP-1
Days After Emergence	45 DE-1	45 DE-1	45 DE-1	45 DE-1
Number of Decimals	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	21*	22*	23*	24*
8	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	98 ab	100 a	100 a	100 a
8	Xtendimax	0.5 lb	ae/a	22 oz/a		A				
8	Fierce EZ	0.143 lb	ai/a	6 oz/a		A				
8	Induce	0.25 %	v/v	0.25 %	v/v	A				
8	In-Place	0.25 %	v/v	0.25 %	v/v	A				
8	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B				
8	Xtendimax	0.5 lb	ae/a	22 oz/a		B				
8	Perpetuo	0.108 lb	ai/a	6 oz/a		B				
8	Select Max	0.07 lb	ai/a	9 oz/a		B				
8	Induce	0.25 %	v/v	0.25 %	v/v	B				
8	In-Place	0.25 %	v/v	0.25 %	v/v	B				
9	Roundup Powermax	1.13 lb	ae/a	32 oz/a		A	98 ab	100 a	100 a	100 a
9	Xtendimax	0.5 lb	ae/a	22 oz/a		A				
9	Fierce MTZ	0.33 lb	ai/a	1 pt/a		A				
9	Induce	0.25 %	v/v	0.25 %	v/v	A				
9	In-Place	0.25 %	v/v	0.25 %	v/v	A				
9	Roundup Powermax	1.13 lb	ae/a	32 oz/a		B				
9	Xtendimax	0.5 lb	ae/a	22 oz/a		B				
9	Perpetuo	0.108 lb	ai/a	6 oz/a		B				
9	Select Max	0.07 lb	ai/a	9 oz/a		B				
9	Induce	0.25 %	v/v	0.25 %	v/v	B				
9	In-Place	0.25 %	v/v	0.25 %	v/v	B				

Means followed by same letter or symbol do not significantly differ (P=0.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	CHEAL	AMARE	ABUTH
Pest Scientific Name	Ambrosia trifida	Chenopodium album	Amaranthus retrofractus	Abutilon theophrasti
Pest Name	ragweed, giant	lambsquarters, >	pigweed, redtop	velvetleaf
Crop Type, Code				
BBCH Scale				
Crop Scientific Name				
Crop Name				
Rating Date	Jul-20-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%
Number of Subsamples	1	1	1	1
Data Entry Date	Jul-20-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020
Rating Timing				
Days After First/Last Applic.	54 20	54 20	54 20	54 20
Trt-Eval Interval	54 DA-A	54 DA-A	54 DA-A	54 DA-A
Plant-Eval Interval	54 DP-1	54 DP-1	54 DP-1	54 DP-1
Days After Emergence	45 DE-1	45 DE-1	45 DE-1	45 DE-1
Number of Decimals	0	0	0	0

Trt Treatment No. Name	Rate	Other Rate	Other Rate	Appl Unit Code	21*	22*	23*	24*
10 Roundup Powermax	1.13 lb ae/a	32 oz/a		A	100 a	100 a	100 a	100 a
10 Xtendimax	0.5 lb ae/a	22 oz/a		A				
10 Fierce XLT	0.156 lb ai/a	4 oz/a		A				
10 Induce	0.25 % v/v	0.25 % v/v		A				
10 In-Place	0.25 % v/v	0.25 % v/v		A				
10 Roundup Powermax	1.13 lb ae/a	32 oz/a		B				
10 Xtendimax	0.5 lb ae/a	22 oz/a		B				
10 Select Max	0.07 lb ai/a	9 oz/a		B				
10 Induce	0.25 % v/v	0.25 % v/v		B				
10 In-Place	0.25 % v/v	0.25 % v/v		B				
LSD P=.05					2.9	.	.	.
Standard Deviation					1.7	0.0	0.0	0.0
CV					1.93	0.0	0.0	0.0
Grand Mean					88.8	89.7	88.0	89.7
Levene's F					0.731	0.00	0.00	0.00
Levene's Prob(F)					0.676	.	.	.
Rank X2					.	.	.	.
P(Rank X2)					.	.	.	.
Skewness					-2.7323*	-2.7485*	-2.4907*	-2.7485*
Kurtosis					5.9046*	5.9614*	4.5634*	5.9614*
Replicate F					0.047	0.000	0.000	0.000
Replicate Prob(F)					0.9544	1.0000	1.0000	1.0000
Treatment F					1002.652	0.000	0.000	0.000
Treatment Prob(F)					0.0001	1.0000	1.0000	1.0000

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Due to missing data, larger LSD values (col. 2: >=0.0 and <=0.0) are used for mean comparisons of treatment pairs with missing data.
 * Adjusted means
 Could not calculate LSD (% mean diff) for columns 1,2,5,9,22,23,24 because error mean square = 0.

The Ohio State University

Trial ID: 20VALENTNT2 Location: Trial Year: 2020
 Protocol ID: Fierce Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

ERICA, Erigeron canadensis, Canada horseweed = US
 SETFA, Setaria faberi, Giant foxtail = US
 AMBTR, Ambrosia trifida, Giant ragweed = US
 CHEAL, Chenopodium album, common lambsquarters = US
 AMARE, Amaranthus retroflexus, Redroot pigweed = US
 ABUTH, Abutilon theophrasti, velvetleaf = US
 ERICA, Conyza canadensis, horseweed = US
 SETFA, Setaria faberi, foxtail, giant = US
 AMBTR, Ambrosia trifida, ragweed, giant = US
 CHEAL, Chenopodium album, lambsquarters, common = US
 AMARE, Amaranthus retroflexus, pigweed, redroot = US

Crop Type, Code

C = EPPO species (Bayer) codes

, , , GLXMA = US

GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

PHYNEC = phytotoxicity - necrosis /burn

Rating Unit

% = percent

Plant-Eval Interval

22 DP-1 = 1 GLXMA May-27-2020

34 DP-1 = 1 GLXMA May-27-2020

41 DP-1 = 1 GLXMA May-27-2020

54 DP-1 = 1 GLXMA May-27-2020