

# The Ohio State University

## Efficacy of HAI-022018-339 Burndown Giant Ragweed

Trial ID: 20HELMBD Location: Trial Year: 2020  
 Protocol ID: 2020-H-US09 Investigator: Dr. Mark M. Loux  
 Project ID: Study Director:  
 Sponsor Contact: James Whitehead, HELM AGRO

### General Trial Information

Investigator: Dr. Mark M. Loux

Trial Status: E established

ARM Trial Created On: Apr-9-2020

Initiation Date: Jun-30-2020

### Trial Location

City: South Charleston Country: USA United States

State/Prov.: Ohio

Postal Code: 45368

Latitude of LL Corner °: 39.86024 N  
 Longitude of LL Corner °: -83.67046 W  
 Altitude of LL Corner: 1107.00 FT

Conducted Under GLP: No

Conducted Under GEP: No

Investigator: Dr. Mark M. Loux

### Pest Description

Pest 1 Type: W Code: SETFA *Setaria faberi*  
 Common Name: foxtail, giant Entry Date: Jun-30-2020

Pest 2 Type: W Code: AMARE *Amaranthus retroflexus*  
 Common Name: pigweed, redroot Entry Date: Jun-30-2020

Pest 3 Type: W Code: AMBTR *Ambrosia trifida*  
 Common Name: ragweed, giant Entry Date: Jun-30-2020

### 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 FT<sup>2</sup> Treatments: 12 Tillage Type: CONTIL conventional-till  
 Replications: 3 Study Design: RACOB� Randomized Complete Block (RCB)

### Previous

No. Crop Year  
 1. SOYBEAN 2019

### Soil Description

Description Name: F-8 East  
 % Sand: 37 % OM: 2.7 Texture: SIL silt loam  
 % Silt: 49 pH: 6 Soil Name: Kokomo  
 % Clay: 15 CEC: 16.9 Fert. Level: G good

### Analyzed By:

Spectrum Analytic, Washington Court House, OH 11-27-2017

### Additional Measured Elements

Date	Element	Quantity	Unit
Nov-27-2017	P	95	PPM
Nov-27-2017	K	229	PPM
Nov-27-2017	Mg	490	PPM
Nov-27-2017	Ca	2139	PPM

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**Application Description**

	<b>A</b>
Application Date	Jun-30-2020
Appl. Start Time	11:50 AM
Appl. Stop Time	12:15 PM
Application Method	SPRAY
Application Timing	POSTWE
Application Placement	BROFOL
Applied By	Kimmet
Appl. Entry Date	Jun-30-2020
Air Temperature Start, Stop	85 85 F
% Relative Humidity Start, Stop	61 61
Wind Velocity+Dir. Start	3 MPH NNE
Wind Velocity+Dir. Stop	3 MPH NNE
Wind Velocity+Dir. Max	3 MPH NNE
Wet Leaves (Y/N)	N no
Soil Temperature	80 F
Soil Moisture	DRY
Soil Surface Condition	MEDIUM
% Cloud Cover	50
Next Moisture Occurred On	Jul-1-2020
Time to Next Moisture	1 DAY
Moisture 6 Hours after Appl.	0 IN
Moisture 1 Week after Appl.	0.72 IN

**Pest Stage At Each Application**

	<b>A</b>
Pest 1 Code, Type, Scale	SETFA W
Stage Majority, Percent	13 80
Stage Minimum, Percent	13
Stage Maximum, Percent	14
Height Average	6 IN
Height Minimum, Maximum	3 6
Density Average	346 PLA/M2
Density Min, Max	25 453
Pest 2 Code, Type, Scale	AMARE W
Stage Majority, Percent	16 80
Stage Minimum, Percent	14
Stage Maximum, Percent	16
Height Average	4 IN
Height Minimum, Maximum	2 4.5
Density Average	12 PLA/M2
Density Min, Max	6 35
Pest 3 Code, Type, Scale	AMBTR W
Stage Majority, Percent	18 80
Stage Minimum, Percent	10
Stage Maximum, Percent	19
Height Average	5 IN
Height Minimum, Maximum	1 6
Density Average	8 PLA/M2
Density Min, Max	2 14

**Application Equipment**

	<b>A</b>
Appl. Equipment	6' AIXR
Equipment Type	BACCAI
Operation Pressure	44 PSI
Nozzle Type	AIXR
Nozzle Size	1110015
Nozzle Spacing	18 IN
Boom Length	6.67 FT
Boom Height	20 IN
Ground Speed	3 MPH
Carrier	WATER
Application Amount	15 GAL/AC
Mix Size	1 L
Propellant	COMCO2

Context	Date	By	Notes
STATUS	Apr-9-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-30-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.

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Trial Year: 2020

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	SETFA	ECHCG	AMBTR	AMARE	SETFA
Pest Name	Giant foxtail	Common barnyar>	Giant ragweed	Redroot pigweed	Giant foxtail
Rating Date	Jul-3-2020	Jul-3-2020	Jul-3-2020	Jul-3-2020	Jul-7-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jul-6-2020	Jul-6-2020	Jul-6-2020	Jul-6-2020	Jul-7-2020
Days After First/Last Applic.	3 3	3 3	3 3	3 3	7 7
Trt-Eval Interval	3 DA-A	3 DA-A	3 DA-A	3 DA-A	7 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	1*	2*	3*	4*	5*
1	UTC						0 c	0 c	0 c	0 d	0 f
2	HAI 022018-339	0.022 lb ai/a		1 oz/a		A	82 b	70 ab	91 ab	85 c	72 de
	2 MSO			1 % v/v		A					
	2 AMSOL			2.5 % v/v		A					
3	HAI 022018-339	0.044 lb ai/a		2 oz/a		A	91 ab	82 a	94 ab	100 a	93 ab
	3 MSO			1 % v/v		A					
	3 AMSOL			2.5 % v/v		A					
4	HAI 022018-339	0.066 lb ai/a		3 oz/a		A	94 a	80 a	95 ab	100 a	93 ab
	4 MSO			1 % v/v		A					
	4 AMSOL			2.5 % v/v		A					
5	HAI 0228018-70	0.0219 lb ai/a		0.5 oz/a		A	86 ab	73 ab	90 ab	88 bc	80 cd
	5 MSO			1 % v/v		A					
	5 AMSOL			2.5 % v/v		A					
6	HAI 0228018-70	0.0438 lb ai/a		1 oz/a		A	87 ab	76 ab	94 ab	95 ab	87 bc
	6 MSO			1 % v/v		A					
	6 AMSOL			2.5 % v/v		A					
7	HAI 022018-339	0.022 lb ai/a		1 oz/a		A	87 ab	72 ab	94 ab	100 a	95 ab
	7 Roundup Powermax	0.77 lb ae/a		22 oz/a		A					
	7 MSO			1 % v/v		A					
	7 AMSOL			2.5 % v/v		A					
8	HAI 022018-339	0.044 lb ai/a		2 oz/a		A	87 ab	75 ab	98 a	100 a	100 a
	8 Roundup Powermax	0.77 lb ae/a		22 oz/a		A					
	8 MSO			1 % v/v		A					
	8 AMSOL			2.5 % v/v		A					
9	Helmquat	0.75 lb ai/a		1 qt/a		A	87 ab	65 b	85 b	100 a	75 cde
	9 MSO			1 % v/v		A					
	9 AMSOL			2.5 % v/v		A					
10	Sharpen			1 oz/a		A	83 ab	63 b	91 ab	100 a	65 e
	10 MSO			1 % v/v		A					
	10 AMSOL			2.5 % v/v		A					
11	Sharpen			2 oz/a		A	83 ab	70 ab	96 a	100 a	72 de
	11 MSO			1 % v/v		A					
	11 AMSOL			2.5 % v/v		A					

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	SETFA	ECHCG	AMBTR	AMARE	SETFA					
Pest Name	Giant foxtail	Common barnyar>	Giant ragweed	Redroot pigweed	Giant foxtail					
Rating Date	Jul-3-2020	Jul-3-2020	Jul-3-2020	Jul-3-2020	Jul-7-2020					
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO					
Rating Unit	%	%	%	%	%					
Number of Subsamples	1	1	1	1	1					
Data Entry Date	Jul-6-2020	Jul-6-2020	Jul-6-2020	Jul-6-2020	Jul-7-2020					
Days After First/Last Applic.	3 3	3 3	3 3	3 3	7 7					
Trt-Eval Interval	3 DA-A	3 DA-A	3 DA-A	3 DA-A	7 DA-A					
Number of Decimals	0	0	0	0	0					
Trt Treatment No. Name	Rate	Unit	Other Rate	Other Rate	Appl Unit Code	1*	2*	3*	4*	5*
12 Sharpen			1 oz/a		A	83 ab	75 ab	93 ab	100 a	100 a
12 Roundup Powermax			22 oz/a		A					
12 MSO			1 % v/v		A					
12 AMSOL			2.5 % v/v		A					
LSD P=.05						10.9	14.8	9.7	7.3	13.0
Standard Deviation						6.4	8.8	5.7	4.3	7.7
CV						8.1	13.13	6.76	4.86	9.9
Grand Mean						79.1	66.7	85.0	89.0	77.6
Levene's F						0.481	0.471	0.486	1.12	0.422
Levene's Prob(F)						0.897	0.903	0.894	0.389	0.931
Rank X2						.	.	.	.	.
P(Rank X2)						.	.	.	.	.
Skewness						-2.6334*	-1.6917*	-2.8721*	-2.8867*	-1.8149*
Kurtosis						6.364*	3.2481*	7.2463*	7.2231*	3.1626*
Replicate F						10.053	18.598	2.661	2.824	10.459
Replicate Prob(F)						0.0008	0.0001	0.0922	0.0810	0.0006
Treatment F						46.160	18.400	66.066	130.497	37.642
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	ECHCG	AMBTR	AMARE	SETFA	ECHCG
Pest Name	Common Giant ragweed	Redroot pigweed	foxtail, giant barnyardgrasses		
Rating Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-14-2020	Jul-14-2020
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-13-2020	Jul-13-2020
Days After First/Last Applic.	7 7	7 7	7 7	14 14	14 14
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	6*	7*	8*	9*	10*
1	UTC						0 g	0 c	0 d	0 e	0 g
2	HAI 022018-339	0.022	lb ai/a	1 oz/a		A	62 ef	98 ab	62 c	67 bc	53 de
2	MSO			1 % v/v		A					
2	AMSOL			2.5 % v/v		A					
3	HAI 022018-339	0.044	lb ai/a	2 oz/a		A	90 abc	95 b	100 a	73 b	63 bcd
3	MSO			1 % v/v		A					
3	AMSOL			2.5 % v/v		A					
4	HAI 022018-339	0.066	lb ai/a	3 oz/a		A	82 a-d	100 a	95 a	70 b	70 bc
4	MSO			1 % v/v		A					
4	AMSOL			2.5 % v/v		A					
5	HAI 0228018-70	0.0219	lb ai/a	0.5 oz/a		A	77 b-e	100 a	77 bc	57 bc	57 cde
5	MSO			1 % v/v		A					
5	AMSOL			2.5 % v/v		A					
6	HAI 0228018-70	0.0438	lb ai/a	1 oz/a		A	73 c-f	100 a	100 a	73 b	73 ab
6	MSO			1 % v/v		A					
6	AMSOL			2.5 % v/v		A					
7	HAI 022018-339	0.022	lb ai/a	1 oz/a		A	92 ab	100 a	98 a	95 a	87 a
7	Roundup Powermax	0.77	lb ae/a	22 oz/a		A					
7	MSO			1 % v/v		A					
7	AMSOL			2.5 % v/v		A					
8	HAI 022018-339	0.044	lb ai/a	2 oz/a		A	98 a	100 a	100 a	95 a	88 a
8	Roundup Powermax	0.77	lb ae/a	22 oz/a		A					
8	MSO			1 % v/v		A					
8	AMSOL			2.5 % v/v		A					
9	Helmquat	0.75	lb ai/a	1 qt/a		A	72 def	100 a	92 ab	65 bc	63 bcd
9	MSO			1 % v/v		A					
9	AMSOL			2.5 % v/v		A					
10	Sharpen			1 oz/a		A	58 f	100 a	100 a	37 d	37 f
10	MSO			1 % v/v		A					
10	AMSOL			2.5 % v/v		A					
11	Sharpen			2 oz/a		A	58 f	100 a	100 a	50 cd	47 ef
11	MSO			1 % v/v		A					
11	AMSOL			2.5 % v/v		A					

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	ECHCG	AMBTR	AMARE	SETFA	ECHCG					
Pest Name	Common Giant ragweed	Redroot pigweed	foxtail, giant barnyardgrasses							
Rating Date	Jul-7-2020	Jul-7-2020	Jul-7-2020	Jul-14-2020	Jul-14-2020					
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-13-2020	Jul-13-2020					
Days After First/Last Applic.	7 7	7 7	7 7	14 14	14 14					
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	14 DA-A	14 DA-A					
Number of Decimals	0	0	0	0	0					
Trt Treatment No. Name	Rate	Unit	Other Rate	Other Rate	Appl Unit Code	6*	7*	8*	9*	10*
12 Sharpen			1 oz/a		A	93 ab	98 ab	98 a	96 a	88 a
12 Roundup Powermax			22 oz/a		A					
12 MSO			1 % v/v		A					
12 AMSOL			2.5 % v/v		A					
LSD P=.05						16.9	4.8	16.3	17.7	15.7
Standard Deviation						10.0	2.8	9.6	10.5	9.2
CV						14.04	3.09	11.32	16.15	15.27
Grand Mean						71.3	91.0	85.1	64.8	60.6
Levene's F						0.324	0.884	1.525	0.614	0.579
Levene's Prob(F)						0.972	0.567	0.187	0.799	0.827
Rank X2						.	.	.	.	.
P(Rank X2)						.	.	.	.	.
Skewness						-1.2228*	-3.0991*	-2.2229*	-0.8622*	-0.8206*
Kurtosis						1.2935	8.1569*	3.9362*	0.2487	0.3915
Replicate F						13.583	0.616	1.285	4.699	7.801
Replicate Prob(F)						0.0001	0.5492	0.2965	0.0200	0.0027
Treatment F						20.820	312.856	27.774	20.538	22.288
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001	0.0001

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	AMBTR	AMARE	SETFA	ECHCG	AMBTR
Pest Name	ragweed, giant	pigweed, redro>	foxtail, giant	barnyardgrass	ragweed, giant
Rating Date	Jul-14-2020	Jul-14-2020	Jul-20-2020	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-13-2020	Jul-13-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020
Days After First/Last Applic.	14 14	14 14	20 20	20 20	20 20
Trt-Eval Interval	14 DA-A	14 DA-A	20 DA-A	20 DA-A	20 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	11*	12*	13*	14*	15*
1	UTC						0 c	0 c	0 f	0 d	0 b
2	HAI 022018-339	0.022 lb ai/a		1 oz/a		A	98 ab	63 b	40 cde	40 bc	85 a
2	MSO			1 % v/v		A					
2	AMSOL			2.5 % v/v		A					
3	HAI 022018-339	0.044 lb ai/a		2 oz/a		A	95 ab	78 ab	70 ab	67 ab	80 a
3	MSO			1 % v/v		A					
3	AMSOL			2.5 % v/v		A					
4	HAI 022018-339	0.066 lb ai/a		3 oz/a		A	98 ab	75 ab	57 abc	53 ab	82 a
4	MSO			1 % v/v		A					
4	AMSOL			2.5 % v/v		A					
5	HAI 0228018-70	0.0219 lb ai/a		0.5 oz/a		A	97 ab	68 b	50 bcd	43 bc	80 a
5	MSO			1 % v/v		A					
5	AMSOL			2.5 % v/v		A					
6	HAI 0228018-70	0.0438 lb ai/a		1 oz/a		A	98 ab	80 ab	58 abc	55 ab	87 a
6	MSO			1 % v/v		A					
6	AMSOL			2.5 % v/v		A					
7	HAI 022018-339	0.022 lb ai/a		1 oz/a		A	97 ab	85 ab	82 a	78 a	78 a
7	Roundup Powermax	0.77 lb ae/a		22 oz/a		A					
7	MSO			1 % v/v		A					
7	AMSOL			2.5 % v/v		A					
8	HAI 022018-339	0.044 lb ai/a		2 oz/a		A	92 b	85 ab	80 a	80 a	78 a
8	Roundup Powermax	0.77 lb ae/a		22 oz/a		A					
8	MSO			1 % v/v		A					
8	AMSOL			2.5 % v/v		A					
9	Helmquat	0.75 lb ai/a		1 qt/a		A	93 ab	68 b	47 b-e	47 bc	75 a
9	MSO			1 % v/v		A					
9	AMSOL			2.5 % v/v		A					
10	Sharpen			1 oz/a		A	97 ab	87 ab	20 ef	20 cd	85 a
10	MSO			1 % v/v		A					
10	AMSOL			2.5 % v/v		A					
11	Sharpen			2 oz/a		A	100 a	95 a	27 def	23 cd	87 a
11	MSO			1 % v/v		A					
11	AMSOL			2.5 % v/v		A					

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed					
Pest Code	AMBTR	AMARE	SETFA	ECHCG	AMBTR					
Pest Name	ragweed, giant	pigweed, redro>	foxtail, giant	barnyardgrass	ragweed, giant					
Rating Date	Jul-14-2020	Jul-14-2020	Jul-20-2020	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-13-2020	Jul-13-2020	Jul-20-2020	Jul-20-2020	Jul-20-2020					
Days After First/Last Applic.	14 14	14 14	20 20	20 20	20 20					
Trt-Eval Interval	14 DA-A	14 DA-A	20 DA-A	20 DA-A	20 DA-A					
Number of Decimals	0	0	0	0	0					
Trt Treatment No. Name	Rate	Unit	Other Rate	Other Rate	Appl Unit Code	11*	12*	13*	14*	15*
12 Sharpen			1 oz/a		A	98 ab	85 ab	83 a	78 a	85 a
12 Roundup Powermax			22 oz/a		A					
12 MSO			1 % v/v		A					
12 AMSOL			2.5 % v/v		A					
LSD P=.05						8.0	25.5	27.3	28.5	13.3
Standard Deviation						4.7	15.1	16.1	16.8	7.9
CV						5.36	20.79	31.53	34.54	10.46
Grand Mean						88.6	72.5	51.1	48.8	75.1
Levene's F						0.469	0.375	1.15	0.955	0.333
Levene's Prob(F)						0.904	0.954	0.369	0.51	0.969
Rank X2						.	.	.	.	.
P(Rank X2)						.	.	.	.	.
Skewness						-2.9838*	-1.5478*	-0.4007	-0.2892	-2.6389*
Kurtosis						7.6701*	2.4927*	-1.1718	-1.3338	6.3359*
Replicate F						2.913	0.687	5.071	6.312	0.919
Replicate Prob(F)						0.0755	0.5136	0.0154	0.0068	0.4137
Treatment F						104.508	7.979	7.946	6.798	27.901
Treatment Prob(F)						0.0001	0.0001	0.0001	0.0001	0.0001

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# The Ohio State University

## Efficacy of HAI-022018-339 Burndown Giant Ragweed

Trial ID: 20HELMBD      Location:      Trial Year: 2020  
 Protocol ID: 2020-H-US09      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director:  
 Sponsor Contact: James Whitehead, HELM AGRO

Pest Type      W Weed  
 Pest Code      AMARE  
 Pest Name      pigweed, redro>  
 Rating Date      Jul-20-2020  
 Rating Type      CONTRO  
 Rating Unit      %  
 Number of Subsamples      1  
 Data Entry Date      Jul-20-2020  
 Days After First/Last Applic.      20 20  
 Trt-Eval Interval      20 DA-A  
 Number of Decimals      0

Trt No.	Treatment Name	Rate	Rate Unit	Other Rate	Other Rate Unit	Appl Code	16*
1	UTC					A	0 c
2	HAI 022018-339	0.022 lb ai/a		1 oz/a		A	60 b
2	MSO			1 % v/v		A	
2	AMSOL			2.5 % v/v		A	
3	HAI 022018-339	0.044 lb ai/a		2 oz/a		A	70 b
3	MSO			1 % v/v		A	
3	AMSOL			2.5 % v/v		A	
4	HAI 022018-339	0.066 lb ai/a		3 oz/a		A	70 b
4	MSO			1 % v/v		A	
4	AMSOL			2.5 % v/v		A	
5	HAI 0228018-70	0.0219 lb ai/a		0.5 oz/a		A	67 b
5	MSO			1 % v/v		A	
5	AMSOL			2.5 % v/v		A	
6	HAI 0228018-70	0.0438 lb ai/a		1 oz/a		A	73 b
6	MSO			1 % v/v		A	
6	AMSOL			2.5 % v/v		A	
7	HAI 022018-339	0.022 lb ai/a		1 oz/a		A	67 b
7	Roundup Powermax	0.77 lb ae/a		22 oz/a		A	
7	MSO			1 % v/v		A	
7	AMSOL			2.5 % v/v		A	
8	HAI 022018-339	0.044 lb ai/a		2 oz/a		A	68 b
8	Roundup Powermax	0.77 lb ae/a		22 oz/a		A	
8	MSO			1 % v/v		A	
8	AMSOL			2.5 % v/v		A	
9	Helmquat	0.75 lb ai/a		1 qt/a		A	67 b
9	MSO			1 % v/v		A	
9	AMSOL			2.5 % v/v		A	
10	Sharpen			1 oz/a		A	97 a
10	MSO			1 % v/v		A	
10	AMSOL			2.5 % v/v		A	
11	Sharpen			2 oz/a		A	95 a
11	MSO			1 % v/v		A	
11	AMSOL			2.5 % v/v		A	

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.  
 \* Adjusted means

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 Trt-Eval Interval      20 DA-A  
 Number of Decimals      0

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	
							16*
12	Sharpen			1 oz/a		A	73 b
12	Roundup Powermax			22 oz/a		A	
12	MSO			1 % v/v		A	
12	AMSOL			2.5 % v/v		A	

LSD P=.05	14.4
Standard Deviation	8.5
CV	12.61
Grand Mean	67.2
Levene's F	0.384
Levene's Prob(F)	0.95
Rank X2	.
P(Rank X2)	.
Skewness	-1.6268*
Kurtosis	3.2949*
Replicate F	0.589
Replicate Prob(F)	0.5633
Treatment F	23.902
Treatment Prob(F)	0.0001

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Protocol ID: 2020-H-US09  
Project ID:

Location:  
Investigator: Dr. Mark M. Loux  
Study Director:  
Sponsor Contact: James Whitehead, HELM AGRO

Trial Year: 2020

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, Giant foxtail = US  
ECHCG, Echinochloa crus-galli, Common barnyard grass = US  
AMBTR, Ambrosia trifida, Giant ragweed = US  
AMARE, Amaranthus retroflexus, Redroot pigweed = US  
SETFA, Setaria faberi, foxtail, giant = US  
ECHCG, Echinochloa crus-galli, barnyardgrass = US  
AMBTR, Ambrosia trifida, ragweed, giant = US  
AMARE, Amaranthus retroflexus, pigweed, redroot = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit

% = percent