The Ohio State University

KFD-302-03, Tripzin ZC, and Moccasin MTZ soybean broadleaf and grass weed control preemergence

Trial ID: 19 KFDPRE Location: Trial Year: 2019
Protocol ID: 19 KFDPRE Investigator: Dr. Mark M. Loux
Project ID: K302-OH-15-TLE Study Director: Bryan Reeb
Sponsor Contact: Tony Estes, UPI

General Trial Information
Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux

Trial Status: E established
ARM Trial Created On: Apr-2-2019

Trial Location
City: South Charleston **Country:** USA United States
State/Prov.: Ohio
Postal Code: 45368 **Climate Zone:** USWARM US Warm Continental

Latitude of LL Corner °: 39.86328 N
Longitude of LL Corner °: 83.67503 W
Altitude of LL Corner: 1115.00 FT

Conducted Under GLP: No
Conducted Under GEP: No

Contacts
Study Director: Bryan Reeb

Investigator: Dr. Mark M. Loux
Crop Description
Crop 1: C GLXMA Glycine max Soybean **BBCH Scale:** BSOY
Entry Date: May-8-2019 **Stage Scale:** BBCH
Variety: Asgrow 38 x 8
Attributes: Round up/ Xtend
Planting Date: May-8-2019 **Planting Rate:** 170000 S/A
Depth: 1 IN
Rows per Plot: 8 **Planting Method:** SEEDED seeded
Row Spacing: 15 IN **Planting Equipment:** PP plot planter
Seed Bed: SMOTRA smooth/trashy
Soil Moisture: SLIWET slightly wet, moist
Emergence Date: May-22-2019

Pest Description
Pest 1 Type: W **Code:** ERICA Erigeron canadensis
Common Name: Canada horseweed **Entry Date:** Apr-24-2019

Pest 2 Type: W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed **Entry Date:** Jul-16-2019

Pest 3 Type: W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass **Entry Date:** Jul-16-2019

Pest 4 Type: W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail **Entry Date:** Jul-16-2019

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 **Treatments:** 24 **Tillage Type:** NOTILL no-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

Maintenance

No.	Date	Type	Maintenance Product Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Tank Mix
1.	Jun-19-2019	HERB	Roundup Powermax	4.5	LBAE/GAL	SL	32	OZ/A	yes
2.	Jun-19-2019	HERB	Xtendimax	2.9	LBAE/GAL	L	22	OZ/A	yes
3.	Jun-19-2019	ADJ	Intact	100	%	L	0.5	% V/V	yes
4.	Jun-19-2019	ADJ	Class Act Ridion	100	%	L	1	% V/V	yes

Soil Description
Description Name: B-5
% OM: 0.7 **Texture:** SICL silty clay loam
pH: 6 **Soil Name:** Crosby
CEC: 7.4 **Fert. Level:** G good

Application Description

	A
Application Date	Apr-24-2019
Appl. Start Time	1:15 PM
Appl. Stop Time	2:15 PM
Application Method	SPRAY
Application Timing	BURNDOWN
Application Placement	BROADC
Applied By	REEB/ACKLEY/LAMB
Appl. Entry Date	Apr-24-2019
Air Temperature Start, Stop	55 F
% Relative Humidity Start, Stop	56
Wind Velocity+Dir. Start	1 MPH SSE
Wet Leaves (Y/N)	N no
Soil Temperature	55 F
Soil Moisture	WET
% Cloud Cover	100
Next Moisture Occurred On	Apr-25-2019
Time to Next Moisture	1 DAY
Moisture 6 Hours after Appl.	0 IN
Moisture 1 Week after Appl.	1.46 IN

Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	GLXMA BSOY
Days after Emergence	-28

Pest Stage At Each Application

	A
Pest 1 Code, Type, Scale	ERICA W
Stage Majority, Percent	19 100
Height Average	2.5 IN
Height Minimum, Maximum	2 3
Density Average	114.66 M2
Density Min, Max	88 136
Pest 2 Code, Type, Scale	AMBTR W
Density Average	6.66 M2
Density Min, Max	4 12
Pest 3 Code, Type, Scale	ECHCG W
Density Average	4 M2
Density Min, Max	4 4
Pest 4 Code, Type, Scale	SETFA W
Density Average	20 M2
Density Min, Max	12 48

Application Equipment

	A
Appl. Equipment	6' BACKPACK
Equipment Type	BACCAI
Operation Pressure	44 PSI
Nozzle Type	TTI
Nozzle Size	11015
Nozzle Spacing	18 IN
Nozzles/Row	4
Boom Length	6.67 FT
Boom Height	20 IN
Ground Speed	3 MPH
Carrier	WATER
Application Amount	15 gal/ac
Mix Size	1 liters
Propellant	COMCO2

Date	By	Context	Notes
Apr-2-2019	Dr. Mark M. Loux	STATUS	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
May-23-2019	Dr. Mark M. Loux	STATUS	Automatically added by ARM: Trial Status updated to 'E' when Emergence Date entered.

SE Definitions

	1.
Crop Type, Code	C

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KFD-302-03, Tripzin ZC, and Moccasin MTZ soybean broadleaf and grass weed control preemergence

Trial ID: 19 KFDPRE Location: Trial Year: 2019
Protocol ID: 19 KFDPRE Investigator: Dr. Mark M. Loux
Project ID: K302-OH-15-TLE Study Director: Bryan Reeb
Sponsor Contact: Tony Estes, UPI

Trt No.	Treatment Name	Rate	Unit	Appl Code	1*	2*	3*	4*	5*	6*
	Pest Type				W Weed	W Weed	W Weed	W Weed	W Weed	W Weed
	Pest Code				ERICA	ERICA	ERICA	ERICA	ERICA	SETFA
	Pest Scientific Name				Erigeron canad>	Erigeron canad>	Erigeron canad>	Erigeron canad>	Erigeron canad>	Setaria faberi
	Pest Name				Canada horsewe>	Canada horsewe>	Canada horsewe>	Canada horsewe>	Canada horsewe>	Giant foxtail
	Crop Type, Code				C GLXMA	C - C GLXMA	C - C GLXMA	C - C GLXMA	C -	
	Crop Name				Soybean	Soybean	Soybean	Soybean		
	Rating Date				May-29-2019	May-29-2019	Jun-6-2019	Jun-6-2019	Jun-19-2019	Jun-19-2019
	Rating Type				PHYGEN	CONTRO	PHYGEN	CONTRO	PHYGEN	CONTRO
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Data Entry Date				May-29-2019	May-29-2019	Jun-6-2019	Jun-6-2019	Jun-19-2019	Jun-19-2019
	Rating Timing								AT POST	AT POST
	Days After First/Last Applic.				35 35	35 35	43 43	43 43	56 56	56 56
	Trt-Eval Interval				35 DA-A	35 DA-A	43 DA-A	43 DA-A	56 DA-A	56 DA-A
	Plant-Eval Interval				21 DP-1	21 DP-1	29 DP-1	29 DP-1	42 DP-1	42 DP-1
	Days After Emergence				7 DE-1	7 DE-1	15 DE-1	15 DE-1	28 DE-1	28 DE-1
	Number of Decimals				0	0	0	0	0	0
1	UTC				0 -	0 c	0 -	0 f	0 -	0 b
2	KFD-302-03	0.46	lb ai/a	A	0 -	97 a	0 -	77 a-d	0 -	77 a
3	Tripzin ZC	1.38	lb ai/a	A	0 -	92 a	0 -	62 bcd	0 -	85 a
4	Moccasin MTZ	1.48	lb ai/a	A	0 -	85 ab	0 -	57 d	0 -	89 a
5	Moccasin MTZ	1.48	lb ai/a	A	0 -	100 a	0 -	92 abc	0 -	93 a
	Shutdown	0.25	lb ai/a	A						
6	Tripzin ZC	1.38	lb ai/a	A	0 -	97 a	0 -	85 a-d	0 -	92 a
	Shutdown	0.25	lb ai/a	A						
7	KFD-302-03	0.46	lb ai/a	A	0 -	100 a	0 -	93 ab	0 -	96 a
	KFD-308-01	0.75	lb ai/a	A						
8	Tripzin ZC	1.38	lb ai/a	A	0 -	98 a	0 -	96 a	0 -	91 a
	KFD-308-01	0.75	lb ai/a	A						
9	Moccasin MTZ	1.48	lb ai/a	A	0 -	80 ab	0 -	63 bcd	0 -	96 a
	KFD-308-01	0.75	lb ai/a	A						
10	KFD-302-03	0.46	lb ai/a	A	0 -	98 a	0 -	75 a-d	0 -	90 a
	KFD-365-02	0.0313	lb ai/a	A						
11	Tripzin ZC	1.38	lb ai/a	A	0 -	97 a	0 -	70 a-d	0 -	97 a
	KFD-365-02	0.0313	lb ai/a	A						
12	Moccasin MTZ	1.48	lb ai/a	A	0 -	72 b	0 -	37 e	0 -	88 a
	KFD-365-02	0.0313	lb ai/a	A						
13	KFD-302-03	0.46	lb ai/a	A	0 -	97 a	0 -	72 a-d	0 -	91 a
	Firstrate	0.0394	lb ai/a	A						
14	Tripzin ZC	1.38	lb ai/a	A	0 -	97 a	0 -	70 a-d	0 -	89 a
	Firstrate	0.0394	lb ai/a	A						
15	Moccasin MTZ	1.48	lb ai/a	A	0 -	93 a	0 -	75 a-d	0 -	78 a
	Firstrate	0.0394	lb ai/a	A						
16	KFD-302-03	0.46	lb ai/a	A	0 -	95 a	0 -	88 a-d	0 -	81 a
	Valor SX	0.064	lb ai/a	A						
17	Tripzin ZC	1.38	lb ai/a	A	0 -	98 a	0 -	83 a-d	0 -	97 a
	Valor SX	0.064	lb ai/a	A						
18	Moccasin MTZ	1.48	lb ai/a	A	0 -	98 a	0 -	85 a-d	0 -	96 a
	Valor SX	0.064	lb ai/a	A						
19	KFD-302-03	0.46	lb ai/a	A	0 -	88 ab	0 -	62 bcd	0 -	87 a
	Outlook	0.84	lb ai/a	A						
20	Tripzin ZC	1.38	lb ai/a	A	0 -	87 ab	0 -	60 cd	0 -	89 a
	Outlook	0.84	lb ai/a	A						
21	Sonic	0.263	lb ai/a	A	0 -	97 a	0 -	80 a-d	0 -	99 a
22	Authority MTZ	0.45	lb ai/a	A	0 -	95 a	0 -	83 a-d	0 -	67 a
23	Zidua Pro	0.192	lb ai/a	A	0 -	93 a	0 -	77 a-d	0 -	98 a

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. 1-14=3
* Adjusted means
Could not calculate LSD (% mean diff) for columns 1,3,5,10,11,12 because error mean square = 0.

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Pest Type				W Weed			W Weed			W Weed		
Pest Code				ERICA			ERICA			SETFA		
Pest Scientific Name				Erigeron canad>			Erigeron canad>			Setaria faberi		
Pest Name				Canada horsewe>			Canada horsewe>			Giant foxtail		
Crop Type, Code				C GLXMA			C - C GLXMA			C - C GLXMA		
Crop Name				Soybean			Soybean			Soybean		
Rating Date				May-29-2019			May-29-2019	Jun-6-2019		Jun-6-2019	Jun-19-2019	
Rating Type				PHYGEN			CONTRO	PHYGEN		CONTRO	PHYGEN	
Rating Unit				%			%	%		%	%	
Number of Subsamples				1			1	1		1	1	
Data Entry Date				May-29-2019			May-29-2019	Jun-6-2019		Jun-6-2019	Jun-19-2019	
Rating Timing											AT POST	
Days After First/Last Applic.				35	35		35	35	43	43	56	56
Trt-Eval Interval				35 DA-A			35 DA-A		43 DA-A		56 DA-A	
Plant-Eval Interval				21 DP-1			21 DP-1		29 DP-1		42 DP-1	
Days After Emergence				7 DE-1			7 DE-1		15 DE-1		28 DE-1	
Number of Decimals				0			0		0		0	

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1*	2*	3*	4*	5*	6*
24	UTC				0 -	0 c	0 -	0 f	0 -	0 b
	LSD P=.05				.	12.5	.	17.6	.	18.6
	Standard Deviation				0.0	7.6	0.0	10.7	0.0	11.3
	CV				0.0	8.88	0.0	15.64	0.0	13.79
	Levene's F				0.00	0.811	0.00	0.846	0.00	0.865
	Levene's Prob(F)				.	0.702	.	0.661	.	0.639
	Skewness				.	-2.5355*	.	-1.3586*	.	-2.2907*
	Kurtosis				.	5.3909*	.	1.5694*	.	4.3349*
	Replicate F				0.000	4.201	0.000	2.461	0.000	0.505
	Replicate Prob(F)				1.0000	0.0211	1.0000	0.0965	1.0000	0.6065
	Treatment F				0.000	38.420	0.000	16.406	0.000	16.289
	Treatment Prob(F)				1.0000	0.0001	1.0000	0.0001	1.0000	0.0001

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Trt No.	Treatment Name	Rate	Unit	Appl Code	7*	8*	9*	10*	11*	12*
	Pest Type				W Weed	W Weed	W Weed		W Weed	W Weed
	Pest Code				ECHCG	AMBTR	ERICA		SETFA	ECHCG
	Pest Scientific Name				Echinochloa cr>	Ambrosia trifi>	Erigeron canad>		Setaria faberi	Echinochloa cr>
	Pest Name				Common barnyar>	Giant ragweed	Canada horsewe>		Giant foxtail	Common barnyar>
	Crop Type, Code				C -	C -	C -	C GLXMA	C -	C -
	Crop Name							Soybean		
	Rating Date				Jun-19-2019	Jun-19-2019	Jun-19-2019	Jul-18-2019	Jul-18-2019	Jul-18-2019
	Rating Type				CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Data Entry Date				Jun-19-2019	Jun-19-2019	Jun-19-2019	Jul-18-2019	Jul-18-2019	Jul-18-2019
	Rating Timing				AT POST	AT POST		28 DAPO	28 DAPO	28 DAPO
	Days After First/Last Applic.				56 56	56 56	56 56	85 85	85 85	85 85
	Trt-Eval Interval				56 DA-A	56 DA-A	56 DA-A	85 DA-A	85 DA-A	85 DA-A
	Plant-Eval Interval				42 DP-1	42 DP-1	42 DP-1	71 DP-1	71 DP-1	71 DP-1
	Days After Emergence				28 DE-1	28 DE-1	28 DE-1	57 DE-1	57 DE-1	57 DE-1
	Number of Decimals				0	0	0	0	0	0
1	UTC				0 b	0 b	20 b	0 -	98	98
2	KFD-302-03	0.46	lb ai/a	A	77 a	72 a	68 a	0 -	100 -	100 -
3	Tripzin ZC	1.38	lb ai/a	A	83 a	68 a	67 a	0 -	100 -	100 -
4	Moccasin MTZ	1.48	lb ai/a	A	90 a	73 a	60 a	0 -	100 -	100 -
5	Moccasin MTZ	1.48	lb ai/a	A	93 a	90 a	86 a	0 -	100 -	100 -
	Shutdown	0.25	lb ai/a	A						
6	Tripzin ZC	1.38	lb ai/a	A	92 a	90 a	73 a	0 -	100 -	100 -
	Shutdown	0.25	lb ai/a	A						
7	KFD-302-03	0.46	lb ai/a	A	96 a	77 a	75 a	0 -	100 -	100 -
	KFD-308-01	0.75	lb ai/a	A						
8	Tripzin ZC	1.38	lb ai/a	A	92 a	77 a	77 a	0 -	100 -	100 -
	KFD-308-01	0.75	lb ai/a	A						
9	Moccasin MTZ	1.48	lb ai/a	A	96 a	80 a	70 a	0 -	100 -	100 -
	KFD-308-01	0.75	lb ai/a	A						
10	KFD-302-03	0.46	lb ai/a	A	90 a	77 a	70 a	0 -	100 -	100 -
	KFD-365-02	0.0313	lb ai/a	A						
11	Tripzin ZC	1.38	lb ai/a	A	96 a	92 a	73 a	0 -	100 -	100 -
	KFD-365-02	0.0313	lb ai/a	A						
12	Moccasin MTZ	1.48	lb ai/a	A	88 a	80 a	53 a	0 -	100 -	100 -
	KFD-365-02	0.0313	lb ai/a	A						
13	KFD-302-03	0.46	lb ai/a	A	91 a	80 a	70 a	0 -	100 -	100 -
	Firstrate	0.0394	lb ai/a	A						
14	Tripzin ZC	1.38	lb ai/a	A	89 a	70 a	67 a	0 -	100 -	100 -
	Firstrate	0.0394	lb ai/a	A						
15	Moccasin MTZ	1.48	lb ai/a	A	78 a	58 a	70 a	0 -	100 -	100 -
	Firstrate	0.0394	lb ai/a	A						
16	KFD-302-03	0.46	lb ai/a	A	78 a	43 ab	75 a	0 -	100 -	100 -
	Valor SX	0.064	lb ai/a	A						
17	Tripzin ZC	1.38	lb ai/a	A	97 a	82 a	72 a	0 -	100 -	100 -
	Valor SX	0.064	lb ai/a	A						
18	Moccasin MTZ	1.48	lb ai/a	A	96 a	90 a	73 a	0 -	100 -	100 -
	Valor SX	0.064	lb ai/a	A						
19	KFD-302-03	0.46	lb ai/a	A	87 a	90 a	67 a	0 -	100 -	100 -
	Outlook	0.84	lb ai/a	A						
20	Tripzin ZC	1.38	lb ai/a	A	89 a	67 a	53 a	0 -	100 -	100 -
	Outlook	0.84	lb ai/a	A						
21	Sonic	0.263	lb ai/a	A	99 a	87 a	75 a	0 -	100 -	100 -
22	Authority MTZ	0.45	lb ai/a	A	67 a	67 a	72 a	0 -	100 -	100 -
23	Zidua Pro	0.192	lb ai/a	A	97 a	100 a	73 a	0 -	100 -	100 -

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Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	7*	8*	9*	10*	11*	12*
	Pest Type				W Weed	W Weed	W Weed		W Weed	W Weed
	Pest Code				ECHCG	AMBTR	ERICA		SETFA	ECHCG
	Pest Scientific Name				Echinochloa cr>	Ambrosia trifi>	Erigeron canad>		Setaria faberi	Echinochloa cr>
	Pest Name				Common barnyar>	Giant ragweed	Canada horsewe>		Giant foxtail	Common barnyar>
	Crop Type, Code				C -	C -	C -	C GLXMA	C -	C -
	Crop Name							Soybean		
	Rating Date				Jun-19-2019	Jun-19-2019	Jun-19-2019	Jul-18-2019	Jul-18-2019	Jul-18-2019
	Rating Type				CONTRO	CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
	Rating Unit				%	%	%	%	%	%
	Number of Subsamples				1	1	1	1	1	1
	Data Entry Date				Jun-19-2019	Jun-19-2019	Jun-19-2019	Jul-18-2019	Jul-18-2019	Jul-18-2019
	Rating Timing				AT POST	AT POST		28 DAPO	28 DAPO	28 DAPO
	Days After First/Last Applic.				56 56	56 56	56 56	85 85	85 85	85 85
	Trt-Eval Interval				56 DA-A	56 DA-A	56 DA-A	85 DA-A	85 DA-A	85 DA-A
	Plant-Eval Interval				42 DP-1	42 DP-1	42 DP-1	71 DP-1	71 DP-1	71 DP-1
	Days After Emergence				28 DE-1	28 DE-1	28 DE-1	57 DE-1	57 DE-1	57 DE-1
	Number of Decimals				0	0	0	0	0	0
24	UTC				0 b	0 b	10 b	0 -	100 -	100 -
	LSD P=.05				18.9	40.1	18.4	.	.	.
	Standard Deviation				11.5	24.4	11.2	0.0	0.0	0.0
	CV				14.07	34.29	17.06	0.0	0.0	0.0
	Levene's F				0.877	0.434	0.563	0.00	0.00	0.00
	Levene's Prob(F)				0.625	0.984	0.932	.	.	.
	Skewness				-2.266*	-0.9913*	-1.6228*	.	.	.
	Kurtosis				4.2355*	-0.0076	3.8484*	.	.	.
	Replicate F				0.412	0.175	5.178	0.000	0.000	0.000
	Replicate Prob(F)				0.6646	0.8397	0.0094	1.0000	1.0000	1.0000
	Treatment F				15.696	3.168	7.048	0.000	0.000	0.000
	Treatment Prob(F)				0.0001	0.0004	0.0001	1.0000	1.0000	1.0000

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Due to missing data, the effective replicates used for mean comparisons are: col. 1-14=3
* Adjusted means
Could not calculate LSD (% mean diff) for columns 1,3,5,10,11,12 because error mean square = 0.

Pest Type						W Weed	W Weed
Pest Code						AMBTR	ERICA
Pest Scientific Name						Ambrosia trifi>	Erigeron canad>
Pest Name						Giant ragweed	Canada horsewe>
Crop Type, Code						C -	C -
Crop Name							
Rating Date						Jul-18-2019	Jul-18-2019
Rating Type						CONTRO	CONTRO
Rating Unit						%	%
Number of Subsamples						1	1
Data Entry Date						Jul-18-2019	Jul-18-2019
Rating Timing						28 DAPO	
Days After First/Last Applic.						85 85	85 85
Trt-Eval Interval						85 DA-A	85 DA-A
Plant-Eval Interval						71 DP-1	71 DP-1
Days After Emergence						57 DE-1	57 DE-1
Number of Decimals						0	0
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code		13*	14*
1	UTC					100 -	78 -
2	KFD-302-03	0.46	lb ai/a	A		100 -	99 -
3	Tripzin ZC	1.38	lb ai/a	A		100 -	100 -
4	Moccasin MTZ	1.48	lb ai/a	A		99 -	100 -
5	Moccasin MTZ	1.48	lb ai/a	A		100 -	100 -
	Shutdown	0.25	lb ai/a	A			
6	Tripzin ZC	1.38	lb ai/a	A		100 -	99 -
	Shutdown	0.25	lb ai/a	A			
7	KFD-302-03	0.46	lb ai/a	A		100 -	100 -
	KFD-308-01	0.75	lb ai/a	A			
8	Tripzin ZC	1.38	lb ai/a	A		100 -	100 -
	KFD-308-01	0.75	lb ai/a	A			
9	Moccasin MTZ	1.48	lb ai/a	A		100 -	100 -
	KFD-308-01	0.75	lb ai/a	A			
10	KFD-302-03	0.46	lb ai/a	A		100 -	100 -
	KFD-365-02	0.0313	lb ai/a	A			
11	Tripzin ZC	1.38	lb ai/a	A		100 -	100 -
	KFD-365-02	0.0313	lb ai/a	A			
12	Moccasin MTZ	1.48	lb ai/a	A		99 -	98 -
	KFD-365-02	0.0313	lb ai/a	A			
13	KFD-302-03	0.46	lb ai/a	A		100 -	67 -
	Firstrate	0.0394	lb ai/a	A			
14	Tripzin ZC	1.38	lb ai/a	A		100 -	100 -
	Firstrate	0.0394	lb ai/a	A			
15	Moccasin MTZ	1.48	lb ai/a	A		99 -	100 -
	Firstrate	0.0394	lb ai/a	A			
16	KFD-302-03	0.46	lb ai/a	A		91 -	98 -
	Valor SX	0.064	lb ai/a	A			
17	Tripzin ZC	1.38	lb ai/a	A		100 -	100 -
	Valor SX	0.064	lb ai/a	A			
18	Moccasin MTZ	1.48	lb ai/a	A		100 -	100 -
	Valor SX	0.064	lb ai/a	A			
19	KFD-302-03	0.46	lb ai/a	A		100 -	95 -
	Outlook	0.84	lb ai/a	A			
20	Tripzin ZC	1.38	lb ai/a	A		100 -	97 -
	Outlook	0.84	lb ai/a	A			
21	Sonic	0.263	lb ai/a	A		100 -	100 -
22	Authority MTZ	0.45	lb ai/a	A		100 -	100 -
23	Zidua Pro	0.192	lb ai/a	A		100 -	100 -

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. 1-14=3
* Adjusted means
Could not calculate LSD (% mean diff) for columns 1,3,5,10,11,12 because error mean square = 0.

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Pest Type				W Weed	W Weed	
Pest Code				AMBTR	ERICA	
Pest Scientific Name				Ambrosia trifi>	Erigeron canad>	
Pest Name				Giant ragweed	Canada horsewe>	
Crop Type, Code				C -	C -	
Crop Name						
Rating Date				Jul-18-2019	Jul-18-2019	
Rating Type				CONTRO	CONTRO	
Rating Unit				%	%	
Number of Subsamples				1	1	
Data Entry Date				Jul-18-2019	Jul-18-2019	
Rating Timing				28 DAPO		
Days After First/Last Applic.				85 85	85 85	
Trt-Eval Interval				85 DA-A	85 DA-A	
Plant-Eval Interval				71 DP-1	71 DP-1	
Days After Emergence				57 DE-1	57 DE-1	
Number of Decimals				0	0	
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13*	14*
24	UTC				100 -	77 -
LSD P=.05					4.8	19.8
Standard Deviation					2.9	12.1
CV					2.95	12.55
Levene's F					1.082	0.94
Levene's Prob(F)					0.397	0.551
Skewness					-8.1542*	-5.7774*
Kurtosis					68.0591*	39.1449*
Replicate F					0.857	1.549
Replicate Prob(F)					0.4311	0.2233
Treatment F					1.072	1.625
Treatment Prob(F)					0.4080	0.0800

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. 1-14=3
* Adjusted means
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KFD-302-03, Tripzin ZC, and Moccasin MTZ soybean broadleaf and grass weed control preemergence

Trial ID: 19 KFDPRE Location: Trial Year: 2019
Protocol ID: 19 KFDPRE Investigator: Dr. Mark M. Loux
Project ID: K302-OH-15-TLE Study Director: Bryan Reeb
Sponsor Contact: Tony Estes, UPI

Pest Type
W, Weed, G-BYRW7, G-WedStg = Weed or volunteer crop
Pest Code
ERICA, Erigeron canadensis, Canada horseweed = US
SETFA, Setaria faberi, Giant foxtail = US
ECHCG, Echinochloa crus-galli, Common barnyard grass = US
AMBTR, Ambrosia trifida, Giant ragweed = US
Crop Type, Code
C, G-ByrC7 = EPPO species (Bayer) codes
GLXMA, BSOY, Glycine max, Soybean = US
Rating Type
PHYGEN = phytotoxicity - general / injury
CONTRO = control / burndown or knockdown
Rating Unit
% = percent
Plant-Eval Interval
21 DP-1 = 1 GLXMA May-8-2019
29 DP-1 = 1 GLXMA May-8-2019
42 DP-1 = 1 GLXMA May-8-2019
71 DP-1 = 1 GLXMA May-8-2019