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Weed Control and crop safety of tankmixes of Xtendimax with vaporgrip technology

Trial ID: 17 XH20DRA Location: F-7 WEST END Trial Year: 2017
 Protocol ID: 17 XH20DRA Investigator: Dr. Mark M. Loux
 Project ID: 2017-01-B7-10 Study Director: Bryan Reeb
 Sponsor Contact: Rod Stevenson, Monsanto

General Trial Information

Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux

Conducted Under GLP: No
Conducted Under GEP: No

Contacts

Study Director: Bryan Reeb
Investigator: Dr. Mark M. Loux

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 36X6
Description: Xtend Tolerant
Planting Rate, Unit: 175000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 15 IN
Soil Moisture: GOOD good
Seed Bed: MEDIUM medium
Planting Date: May-17-2017
Planting Method: PLANTD planted
Planting Equipment: FE Field Equipment
Emergence Date: May-29-2017

Pest Description

- Pest 1 Type:** W **Code:** AMBEL Ambrosia artemisiifolia
Common Name: Common ragweed
- Pest 2 Type:** W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed
- Pest 3 Type:** W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail
- Pest 4 Type:** W **Code:** HIBTR Hibiscus trionum
Common Name: Venice mallow
- Pest 5 Type:** W **Code:** AMARE Amaranthus retroflexus
Common Name: Redroot pigweed
- Pest 6 Type:** W **Code:** POLPY Persicaria pensylvanica
Common Name: annual smartweed
- Pest 7 Type:** W **Code:** CHEAL Chenopodium album
Common Name: common lambsquarters
- Pest 8 Type:** W **Code:** SIDSP Sida spinosa
Common Name: Prickly sida
- Pest 9 Type:** W **Code:** ECHCG Echinochloa crus-galli
Common Name: Common barnyard grass

Site and Design

Treated Plot Width: 6.67 FT
Treated Plot Length: 30 FT
Treated Plot Area: 200.1 FT2 **Treatments:** 16
Replications: 3
Site Type: FIELD field
Experimental Unit: 1 PLOT plot
Tillage Type: CONTIL conventional-till
Study Design: RACOB� Randomized Complete Block (RCB)

Soil Description

Description Name: F-7 West
% OM: 3.1 **Texture:** SICL silty clay loam
pH: 7.1 **Soil Name:** Kokomo
CEC: 22.2 **Fert. Level:** G good
Soil Drainage: G good

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Application Description

A
Application Date: Jun-16-2017
Appl. Start Time: 9:18 AM
Appl. Stop Time: 9:30 AM
Application Method: SPRAY
Application Placement: BROFOL
Applied By: REEB
Air Temperature, Unit: 77 F
% Relative Humidity: 76
Wind Velocity, Unit: 3 MPH
Wind Direction: SW
Dew Presence (Y/N): Y yes
Soil Temperature, Unit: 70 F
Soil Moisture: WET
% Cloud Cover: 30
Next Moisture Occurred On: Jun-18-2017
Time to Next Moisture, Unit: 2 DAY

Crop Stage At Each Application

A
Crop 1 Code, BBCH Scale: GLXMA BSOY
Stage Scale Used: BBCH
Stage Majority, Percent: 12 100
Height, Unit: 5 IN

Pest Stage At Each Application

A
Pest 1 Code, Type, Scale: AMBEL W
Stage Majority, Percent: 16 100
Height, Unit: 3.5 IN
Height Minimum, Maximum: 3 4
Density, Unit: 4 m2
Pest 2 Code, Type, Scale: AMBTR W
Stage Majority, Percent: 21 100
Height, Unit: 10 IN
Height Minimum, Maximum: 8 12
Density, Unit: 21 m2
Pest 3 Code, Type, Scale: SETFA W
Stage Majority, Percent: 15 100
Height, Unit: 7 IN
Height Minimum, Maximum: 5 10
Density, Unit: 122 m2
Pest 4 Code, Type, Scale: HIBTR W
Stage Majority, Percent: 16 100
Height, Unit: 5 IN
Height Minimum, Maximum: 4 6
Density, Unit: 27 m2
Pest 5 Code, Type, Scale: AMARE W
Stage Majority, Percent: 21 100
Height, Unit: 5 IN
Height Minimum, Maximum: 3 6
Density, Unit: 40 m2
Pest 6 Code, Type, Scale: POLPY W
Stage Majority, Percent: 16 100
Height, Unit: 7 IN
Pest 7 Code, Type, Scale: CHEAL W
Stage Majority, Percent: 21 100
Height, Unit: 6 IN
Density, Unit: 1 m2
Pest 8 Code, Type, Scale: SIDSP W
Stage Majority, Percent: 21 100
Height, Unit: 4 IN
Height Minimum, Maximum: 3 5
Density, Unit: 24 m2
Pest 9 Code, Type, Scale: ECHCG W
Stage Majority, Percent: 15 100
Height, Unit: 7 IN
Height Minimum, Maximum: 5 10
Density, Unit: 40 m2

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Application Equipment

A

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

Date	By	Notes
Jun-16-2017		Treatment 5 - narrow and stream like pattern
		Treatment 9 - narrow and stream like pattern
		Treatment 10 - narrow and stream like pattern
		Treatment 11 - narrow and stream like pattern
		Treatment 12 - narrow and stream like pattern

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 Protocol ID: 17 XH20DRA Investigator: Dr. Mark M. Loux
 Project ID: 2017-01-B7-10 Study Director: Bryan Reeb
 Sponsor Contact: Rod Stevenson, Monsanto

Pest Type	O Other	W Weed	W Weed	W Weed	W Weed		
Pest Code		SETFA	ECHCG	AMBTR	AMBEL		
Pest Name		Giant foxtail	Common barnyar	Giant ragweed	Common ragweed		
Crop Code	GLXMA						
Crop Name	Soybean						
Rating Date	Jun-29-2017	Jun-29-2017	Jun-29-2017	Jun-29-2017	Jun-29-2017		
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%	%	%		
Number of Subsamples	1	1	1	1	1		
Days After First/Last Applic.	13 13	13 13	13 13	13 13	13 13		
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A		
Days After Emergence	31 DE-1	31 DE-1	31 DE-1	31 DE-1	31 DE-1		
Trt Treatment	Other Other	Appl					
No. Name	Rate Rate	Unit Code	1	2	3	4	5
1 Xtendimax	22 oz/a	A	0.0 a	100.0 a	86.7 a	97.7 a	100.0 a
1 Roundup Power Max	28.4 oz/a	A					
1 AG 16098	0.3 qt/a	A					
2 Xtendimax	22 oz/a	A	0.0 a	99.3 a	80.0 a	87.3 bc	100.0 a
2 Roundup Power Max	28.4 oz/a	A					
2 Section Three	4 oz/a	A					
2 AG 16098	0.3 qt/a	A					
3 Xtendimax	22 oz/a	A	0.0 a	99.3 a	89.3 a	98.3 a	100.0 a
3 Roundup Power Max	28.4 oz/a	A					
3 AG 16098	0.3 qt/a	A					
3 Class Act Ridion	0.3 qt/a	A					
4 Xtendimax	22 oz/a	A	0.0 a	98.7 a	81.7 a	96.0 a	100.0 a
4 Roundup Power Max	28.4 oz/a	A					
4 Section Three	4 oz/a	A					
4 AG 16098	0.3 qt/a	A					
4 Class Act Ridion	0.3 qt/a	A					
5 Xtendimax	22 oz/a	A	0.0 a	100.0 a	85.0 a	96.7 a	100.0 a
5 Roundup Power Max	28.4 oz/a	A					
5 Reign	0.3 qt/a	A					
6 Xtendimax	22 oz/a	A	0.0 a	99.7 a	89.0 a	98.7 a	100.0 a
6 Roundup Power Max	28.4 oz/a	A					
6 Intensity One	6 oz/a	A					
6 Reign	0.3 qt/a	A					
7 Xtendimax	22 oz/a	A	0.0 a	99.3 a	86.7 a	94.0 ab	100.0 a
7 Roundup Power Max	28.4 oz/a	A					
7 Reign	0.3 qt/a	A					
7 Strike Force	0.3 qt/a	A					
8 Xtendimax	22 oz/a	A	0.0 a	100.0 a	81.7 a	94.7 ab	100.0 a
8 Roundup Power Max	28.4 oz/a	A					
8 Intensity One	5.53 oz/a	A					
8 Reign	0.3 qt/a	A					
8 Strike Force	0.3 qt/a	A					
9 Xtendimax	22 oz/a	A	0.0 a	97.7 a	65.0 a	86.7 bc	100.0 a
9 Roundup Power Max	28.4 oz/a	A					
9 Strikezone LC	0.3 qt/a	A					

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.
 Could not calculate LSD (% mean diff) for columns 1,10,19 because error mean square = 0.

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Pest Type	O Other	W Weed	W Weed	W Weed	W Weed			
Pest Code	SETFA	ECHCG	AMBTR	AMBEL				
Pest Name	Giant foxtail	Common barnyar	Giant ragweed	Common ragweed				
Crop Code	GLXMA							
Crop Name	Soybean							
Rating Date	Jun-29-2017	Jun-29-2017	Jun-29-2017	Jun-29-2017	Jun-29-2017			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
Days After First/Last Applic.	13 13	13 13	13 13	13 13	13 13			
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A			
Days After Emergence	31 DE-1	31 DE-1	31 DE-1	31 DE-1	31 DE-1			
Trt Treatment	Other	Other	Appl					
No. Name	Rate	Rate	Unit Code	1	2			
				3	4			
				5				
10 Xtendimax	22 oz/a	A	A	0.0 a	100.0 a	75.0 a	95.0 ab	100.0 a
10 Roundup Power Max	28.4 oz/a	A	A					
10 Tapout	6 oz/a	A	A					
10 Strikezone LC	0.3 qt/a	A	A					
11 Xtendimax	22 oz/a	A	A	0.0 a	98.3 a	76.7 a	96.0 a	70.0 a
11 Roundup Power Max	28.4 oz/a	A	A					
11 Strikezone LC	0.3 qt/a	A	A					
11 Oculus	0.6 qt/a	A	A					
12 Xtendimax	22 oz/a	A	A	0.0 a	98.3 a	85.0 a	96.0 a	100.0 a
12 Roundup Power Max	28.4 oz/a	A	A					
12 Tapout	6 oz/a	A	A					
12 Strikezone LC	0.3 qt/a	A	A					
12 Oculus	0.6 qt/a	A	A					
13 Xtendimax	22 oz/a	A	A	0.0 a	100.0 a	93.3 a	96.7 a	100.0 a
13 Roundup Power Max	28.4 oz/a	A	A					
13 Intact	0.3 qt/a	A	A					
14 Xtendimax	22 oz/a	A	A	0.0 a	100.0 a	75.0 a	91.7 abc	100.0 a
14 Roundup Power Max	28.4 oz/a	A	A					
14 Select Max	6 oz/a	A	A					
14 Intact	0.3 qt/a	A	A					
15 Xtendimax	22 oz/a	A	A	0.0 a	99.3 a	90.0 a	99.0 a	100.0 a
15 Roundup Power Max	28.4 oz/a	A	A					
15 Intact	0.3 qt/a	A	A					
15 FS Certain	0.3 qt/a	A	A					
16 Xtendimax	22 oz/a	A	A	0.0 a	100.0 a	83.3 a	85.0 c	100.0 a
16 Roundup Power Max	28.4 oz/a	A	A					
16 Select Max	6 oz/a	A	A					
16 Intact	0.3 qt/a	A	A					
16 FS Certain	0.3 qt/a	A	A					
LSD P=.05					2.14	15.37	8.64	21.66
Standard Deviation				0.00	1.28	9.22	5.18	12.99
CV				0.0	1.29	11.15	5.5	13.24
Bartlett's X2				0.0	8.072	14.284	12.725	0.0
P(Bartlett's X2)				.	0.426	0.429	0.623	.
Replicate F				0.000	3.182	2.213	4.945	1.000
Replicate Prob(F)				1.0000	0.0558	0.1270	0.0139	0.3798
Treatment F				0.000	1.020	1.813	2.155	1.000
Treatment Prob(F)				1.0000	0.4624	0.0808	0.0358	0.4801

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Pest Type	W Weed	W Weed	W Weed	W Weed	O Other			
Pest Code	CHEAL	AMARE	POLPY	SIDSP				
Pest Name	common lambsqu>	Redroot pigweed	annual smartwe>	Prickly sida				
Crop Code					GLXMA			
Crop Name					Soybean			
Rating Date	Jun-29-2017	Jun-29-2017	Jun-29-2017	Jun-29-2017	Jul-7-2017			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
Days After First/Last Applic.	13 13	13 13	13 13	13 13	21 21			
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	21 DA-A			
Days After Emergence	31 DE-1	31 DE-1	31 DE-1	31 DE-1	39 DE-1			
Trt Treatment	Other Rate	Other Rate	Appl Unit Code	6	7	8	9	10
1 Xtendimax	22 oz/a		A	100.0 a	97.7 a	100.0 a	90.0 a	0.0 a
1 Roundup Power Max	28.4 oz/a		A					
1 AG 16098	0.3 qt/a		A					
2 Xtendimax	22 oz/a		A	100.0 a	100.0 a	100.0 a	93.3 a	0.0 a
2 Roundup Power Max	28.4 oz/a		A					
2 Section Three	4 oz/a		A					
2 AG 16098	0.3 qt/a		A					
3 Xtendimax	22 oz/a		A	100.0 a	100.0 a	100.0 a	95.0 a	0.0 a
3 Roundup Power Max	28.4 oz/a		A					
3 AG 16098	0.3 qt/a		A					
3 Class Act Ridion	0.3 qt/a		A					
4 Xtendimax	22 oz/a		A	100.0 a	98.3 a	100.0 a	98.0 a	0.0 a
4 Roundup Power Max	28.4 oz/a		A					
4 Section Three	4 oz/a		A					
4 AG 16098	0.3 qt/a		A					
4 Class Act Ridion	0.3 qt/a		A					
5 Xtendimax	22 oz/a		A	100.0 a	100.0 a	100.0 a	94.7 a	0.0 a
5 Roundup Power Max	28.4 oz/a		A					
5 Reign	0.3 qt/a		A					
6 Xtendimax	22 oz/a		A	100.0 a	100.0 a	70.0 a	95.0 a	0.0 a
6 Roundup Power Max	28.4 oz/a		A					
6 Intensity One	6 oz/a		A					
6 Reign	0.3 qt/a		A					
7 Xtendimax	22 oz/a		A	100.0 a	100.0 a	100.0 a	90.7 a	0.0 a
7 Roundup Power Max	28.4 oz/a		A					
7 Reign	0.3 qt/a		A					
7 Strike Force	0.3 qt/a		A					
8 Xtendimax	22 oz/a		A	100.0 a	98.7 a	100.0 a	96.0 a	0.0 a
8 Roundup Power Max	28.4 oz/a		A					
8 Intensity One	5.53 oz/a		A					
8 Reign	0.3 qt/a		A					
8 Strike Force	0.3 qt/a		A					
9 Xtendimax	22 oz/a		A	99.0 a	98.3 a	100.0 a	86.0 a	0.0 a
9 Roundup Power Max	28.4 oz/a		A					
9 Strikezone LC	0.3 qt/a		A					

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Pest Type	W Weed	W Weed	W Weed	W Weed	O Other			
Pest Code	CHEAL	AMARE	POLPY	SIDSP				
Pest Name	common lambsqu>	Redroot pigweed	annual smartwe>	Prickly sida				
Crop Code					GLXMA			
Crop Name					Soybean			
Rating Date	Jun-29-2017	Jun-29-2017	Jun-29-2017	Jun-29-2017	Jul-7-2017			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	PHYGEN			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
Days After First/Last Applic.	13 13	13 13	13 13	13 13	21 21			
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	21 DA-A			
Days After Emergence	31 DE-1	31 DE-1	31 DE-1	31 DE-1	39 DE-1			
Trt Treatment	Other Rate	Other Rate	Appl Unit Code	6	7	8	9	10
10 Xtendimax	22 oz/a		A	98.3 a	91.7 a	99.3 a	95.7 a	0.0 a
10 Roundup Power Max	28.4 oz/a		A					
10 Tapout	6 oz/a		A					
10 Strikezone LC	0.3 qt/a		A					
11 Xtendimax	22 oz/a		A	95.0 a	88.3 a	100.0 a	86.7 a	0.0 a
11 Roundup Power Max	28.4 oz/a		A					
11 Strikezone LC	0.3 qt/a		A					
11 Oculus	0.6 qt/a		A					
12 Xtendimax	22 oz/a		A	96.7 a	90.7 a	100.0 a	89.0 a	0.0 a
12 Roundup Power Max	28.4 oz/a		A					
12 Tapout	6 oz/a		A					
12 Strikezone LC	0.3 qt/a		A					
12 Oculus	0.6 qt/a		A					
13 Xtendimax	22 oz/a		A	100.0 a	100.0 a	100.0 a	95.0 a	0.0 a
13 Roundup Power Max	28.4 oz/a		A					
13 Intact	0.3 qt/a		A					
14 Xtendimax	22 oz/a		A	100.0 a	98.3 a	100.0 a	91.7 a	0.0 a
14 Roundup Power Max	28.4 oz/a		A					
14 Select Max	6 oz/a		A					
14 Intact	0.3 qt/a		A					
15 Xtendimax	22 oz/a		A	100.0 a	100.0 a	100.0 a	95.7 a	0.0 a
15 Roundup Power Max	28.4 oz/a		A					
15 Intact	0.3 qt/a		A					
15 FS Certain	0.3 qt/a		A					
16 Xtendimax	22 oz/a		A	100.0 a	96.7 a	100.0 a	93.3 a	0.0 a
16 Roundup Power Max	28.4 oz/a		A					
16 Select Max	6 oz/a		A					
16 Intact	0.3 qt/a		A					
16 FS Certain	0.3 qt/a		A					
LSD P=.05				3.37	8.56	21.68	14.66	.
Standard Deviation				2.02	5.13	13.00	8.79	0.00
CV				2.04	5.27	13.26	9.47	0.0
Bartlett's X2				2.859	18.559	12.264	17.249	0.0
P(Bartlett's X2)				0.414	0.017*	0.001*	0.304	.
Replicate F				2.032	2.589	0.976	6.033	0.000
Replicate Prob(F)				0.1487	0.0918	0.3883	0.0063	1.0000
Treatment F				1.581	1.615	0.996	0.477	0.000
Treatment Prob(F)				0.1392	0.1286	0.4840	0.9344	1.0000

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed			
Pest Code	SETFA	ECHCG	AMBTR	AMBEL	CHEAL			
Pest Name	Giant foxtail	Common barnyar>	Giant ragweed	Common ragweed	common lambsqu>			
Crop Code								
Crop Name								
Rating Date	Jul-7-2017	Jul-7-2017	Jul-7-2017	Jul-7-2017	Jul-7-2017			
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit	%	%	%	%	%			
Number of Subsamples	1	1	1	1	1			
Days After First/Last Applic.	21 21	21 21	21 21	21 21	21 21			
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A			
Days After Emergence	39 DE-1	39 DE-1	39 DE-1	39 DE-1	39 DE-1			
Trt Treatment	Other	Other	Appl					
No. Name	Rate	Rate	Unit Code	11	12	13	14	15
1 Xtendimax	22 oz/a		A	93.3 a	70.0 a	96.7 a	100.0 a	100.0 a
1 Roundup Power Max	28.4 oz/a		A					
1 AG 16098	0.3 qt/a		A					
2 Xtendimax	22 oz/a		A	93.3 a	60.0 a	90.0 a	100.0 a	96.7 a
2 Roundup Power Max	28.4 oz/a		A					
2 Section Three	4 oz/a		A					
2 AG 16098	0.3 qt/a		A					
3 Xtendimax	22 oz/a		A	96.7 a	80.0 a	100.0 a	100.0 a	99.3 a
3 Roundup Power Max	28.4 oz/a		A					
3 AG 16098	0.3 qt/a		A					
3 Class Act Ridion	0.3 qt/a		A					
4 Xtendimax	22 oz/a		A	93.3 a	68.3 a	96.7 a	100.0 a	99.0 a
4 Roundup Power Max	28.4 oz/a		A					
4 Section Three	4 oz/a		A					
4 AG 16098	0.3 qt/a		A					
4 Class Act Ridion	0.3 qt/a		A					
5 Xtendimax	22 oz/a		A	99.3 a	68.3 a	91.7 a	100.0 a	93.3 a
5 Roundup Power Max	28.4 oz/a		A					
5 Reign	0.3 qt/a		A					
6 Xtendimax	22 oz/a		A	96.7 a	73.3 a	96.0 a	100.0 a	96.0 a
6 Roundup Power Max	28.4 oz/a		A					
6 Intensity One	6 oz/a		A					
6 Reign	0.3 qt/a		A					
7 Xtendimax	22 oz/a		A	99.3 a	71.7 a	96.0 a	100.0 a	99.0 a
7 Roundup Power Max	28.4 oz/a		A					
7 Reign	0.3 qt/a		A					
7 Strike Force	0.3 qt/a		A					
8 Xtendimax	22 oz/a		A	93.3 a	60.0 a	93.3 a	100.0 a	95.0 a
8 Roundup Power Max	28.4 oz/a		A					
8 Intensity One	5.53 oz/a		A					
8 Reign	0.3 qt/a		A					
8 Strike Force	0.3 qt/a		A					
9 Xtendimax	22 oz/a		A	93.3 a	46.7 a	93.3 a	100.0 a	96.7 a
9 Roundup Power Max	28.4 oz/a		A					
9 Strikezone LC	0.3 qt/a		A					

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.
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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed				
Pest Code	SETFA	ECHCG	AMBTR	AMBEL	CHEAL				
Pest Name	Giant foxtail Common barnyar> Giant ragweed Common ragweed common lambsqu>								
Crop Code									
Crop Name									
Rating Date	Jul-7-2017	Jul-7-2017	Jul-7-2017	Jul-7-2017	Jul-7-2017				
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO				
Rating Unit	%	%	%	%	%				
Number of Subsamples	1	1	1	1	1				
Days After First/Last Applic.	21 21	21 21	21 21	21 21	21 21				
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A				
Days After Emergence	39 DE-1	39 DE-1	39 DE-1	39 DE-1	39 DE-1				
Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	11	12	13	14	15
10	Xtendimax	22 oz/a		A	96.7 a	56.7 a	93.3 a	100.0 a	94.3 a
10	Roundup Power Max	28.4 oz/a		A					
10	Tapout	6 oz/a		A					
10	Strikezone LC	0.3 qt/a		A					
11	Xtendimax	22 oz/a		A	96.0 a	53.3 a	89.3 a	100.0 a	90.0 a
11	Roundup Power Max	28.4 oz/a		A					
11	Strikezone LC	0.3 qt/a		A					
11	Oculus	0.6 qt/a		A					
12	Xtendimax	22 oz/a		A	98.3 a	68.3 a	96.0 a	100.0 a	92.7 a
12	Roundup Power Max	28.4 oz/a		A					
12	Tapout	6 oz/a		A					
12	Strikezone LC	0.3 qt/a		A					
12	Oculus	0.6 qt/a		A					
13	Xtendimax	22 oz/a		A	100.0 a	75.0 a	91.7 a	93.3 a	96.7 a
13	Roundup Power Max	28.4 oz/a		A					
13	Intact	0.3 qt/a		A					
14	Xtendimax	22 oz/a		A	99.3 a	53.3 a	86.7 a	100.0 a	88.3 a
14	Roundup Power Max	28.4 oz/a		A					
14	Select Max	6 oz/a		A					
14	Intact	0.3 qt/a		A					
15	Xtendimax	22 oz/a		A	99.3 a	65.0 a	97.7 a	100.0 a	96.7 a
15	Roundup Power Max	28.4 oz/a		A					
15	Intact	0.3 qt/a		A					
15	FS Certain	0.3 qt/a		A					
16	Xtendimax	22 oz/a		A	98.7 a	60.0 a	93.3 a	100.0 a	94.0 a
16	Roundup Power Max	28.4 oz/a		A					
16	Select Max	6 oz/a		A					
16	Intact	0.3 qt/a		A					
16	FS Certain	0.3 qt/a		A					
LSD P=.05					7.79	21.36	11.35	4.81	9.62
Standard Deviation					4.67	12.81	6.81	2.89	5.77
CV					4.83	19.9	7.25	2.9	6.04
Bartlett's X2					30.051	14.783	7.762	0.0	14.146
P(Bartlett's X2)					0.008*	0.321	0.901	.	0.439
Replicate F					17.481	0.695	1.660	1.000	1.873
Replicate Prob(F)					0.0001	0.5068	0.2071	0.3798	0.1712
Treatment F					0.937	1.516	0.775	1.000	0.982
Treatment Prob(F)					0.5374	0.1615	0.6929	0.4801	0.4956

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.
 Could not calculate LSD (% mean diff) for columns 1,10,19 because error mean square = 0.

The Ohio State University

Pest Type	W Weed	W Weed	W Weed		
Pest Code	AMARE	POLPY	SIDSP		
Pest Name	Redroot pigweed annual smartwe> Prickly sida				
Crop Code					
Crop Name					
Rating Date	Jul-7-2017	Jul-7-2017	Jul-7-2017		
Rating Type	CONTRO	CONTRO	CONTRO		
Rating Unit	%	%	%		
Number of Subsamples	1	1	1 1		
Days After First/Last Applic.	21 21	21 21	21 21		
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A		
Days After Emergence	39 DE-1	39 DE-1	39 DE-1		
Trt Treatment	Other Rate	Other Rate	Appl Unit Code		
No. Name					
			16 17 18 19		
1 Xtendimax	22 oz/a	A	90.0 a	100.0 a	80.0 bcd
1 Roundup Power Max	28.4 oz/a	A			
1 AG 16098	0.3 qt/a	A			
2 Xtendimax	22 oz/a	A	83.3 a	93.3 a	86.7 abc
2 Roundup Power Max	28.4 oz/a	A			
2 Section Three	4 oz/a	A			
2 AG 16098	0.3 qt/a	A			
3 Xtendimax	22 oz/a	A	95.7 a	100.0 a	90.0 ab
3 Roundup Power Max	28.4 oz/a	A			
3 AG 16098	0.3 qt/a	A			
3 Class Act Ridion	0.3 qt/a	A			
4 Xtendimax	22 oz/a	A	83.3 a	86.7 a	80.0 bcd
4 Roundup Power Max	28.4 oz/a	A			
4 Section Three	4 oz/a	A			
4 AG 16098	0.3 qt/a	A			
4 Class Act Ridion	0.3 qt/a	A			
5 Xtendimax	22 oz/a	A	93.3 a	96.7 a	90.0 ab
5 Roundup Power Max	28.4 oz/a	A			
5 Reign	0.3 qt/a	A			
6 Xtendimax	22 oz/a	A	86.7 a	96.7 a	80.0 bcd
6 Roundup Power Max	28.4 oz/a	A			
6 Intensity One	6 oz/a	A			
6 Reign	0.3 qt/a	A			
7 Xtendimax	22 oz/a	A	93.3 a	95.7 a	83.3 a-d
7 Roundup Power Max	28.4 oz/a	A			
7 Reign	0.3 qt/a	A			
7 Strike Force	0.3 qt/a	A			
8 Xtendimax	22 oz/a	A	85.0 a	100.0 a	90.0 ab
8 Roundup Power Max	28.4 oz/a	A			
8 Intensity One	5.53 oz/a	A			
8 Reign	0.3 qt/a	A			
8 Strike Force	0.3 qt/a	A			
9 Xtendimax	22 oz/a	A	88.3 a	100.0 a	86.7 abc
9 Roundup Power Max	28.4 oz/a	A			
9 Strikezone LC	0.3 qt/a	A			

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The Ohio State University

Pest Type	W Weed		W Weed	W Weed				
Pest Code	AMARE		POLPY	SIDSP				
Pest Name	Redroot pigweed annual smartwe> Prickly sida							
Crop Code								
Crop Name								
Rating Date	Jul-7-2017		Jul-7-2017	Jul-7-2017				
Rating Type	CONTRO		CONTRO	CONTRO				
Rating Unit	%		%	%				
Number of Subsamples	1		1	1				
Days After First/Last Applic.	21	21	21	21				
Trt-Eval Interval	21 DA-A		21 DA-A	21 DA-A				
Days After Emergence	39 DE-1		39 DE-1	39 DE-1				
Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	16	17	18	19
10	Xtendimax	22 oz/a		A	76.7 a	100.0 a	76.7 cd	
10	Roundup Power Max	28.4 oz/a		A				
10	Tapout	6 oz/a		A				
10	Strikezone LC	0.3 qt/a		A				
11	Xtendimax	22 oz/a		A	85.0 a	96.7 a	78.3 cd	
11	Roundup Power Max	28.4 oz/a		A				
11	Strikezone LC	0.3 qt/a		A				
11	Oculus	0.6 qt/a		A				
12	Xtendimax	22 oz/a		A	85.0 a	100.0 a	76.7 cd	
12	Roundup Power Max	28.4 oz/a		A				
12	Tapout	6 oz/a		A				
12	Strikezone LC	0.3 qt/a		A				
12	Oculus	0.6 qt/a		A				
13	Xtendimax	22 oz/a		A	90.0 a	100.0 a	93.3 a	
13	Roundup Power Max	28.4 oz/a		A				
13	Intact	0.3 qt/a		A				
14	Xtendimax	22 oz/a		A	81.7 a	96.7 a	73.3 d	
14	Roundup Power Max	28.4 oz/a		A				
14	Select Max	6 oz/a		A				
14	Intact	0.3 qt/a		A				
15	Xtendimax	22 oz/a		A	88.3 a	100.0 a	80.0 bcd	
15	Roundup Power Max	28.4 oz/a		A				
15	Intact	0.3 qt/a		A				
15	FS Certain	0.3 qt/a		A				
16	Xtendimax	22 oz/a		A	86.7 a	100.0 a	83.3 a-d	
16	Roundup Power Max	28.4 oz/a		A				
16	Select Max	6 oz/a		A				
16	Intact	0.3 qt/a		A				
16	FS Certain	0.3 qt/a		A				
LSD P=.05					10.56	8.46	11.13	.
Standard Deviation					6.34	5.07	6.67	.
CV					7.28	5.19	8.04	.
Bartlett's X2					13.009	4.684	4.18	.
P(Bartlett's X2)					0.602	0.585	0.989	.
Replicate F					3.303	1.570	14.182	
Replicate Prob(F)					0.0505	0.2247	0.0001	
Treatment F					1.750	1.530	2.300	
Treatment Prob(F)					0.0937	0.1566	0.0254	

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 Could not calculate LSD (% mean diff) for columns 1,10,19 because error mean square = 0.

The Ohio State University

Weed Control and crop safety of tankmixes of Xtendimax with vaporgrip technology

Trial ID: 17 XH20DRA Location: F-7 WEST END Trial Year: 2017
Protocol ID: 17 XH20DRA Investigator: Dr. Mark M. Loux
Project ID: 2017-01-B7-10 Study Director: Bryan Reeb
Sponsor Contact: Rod Stevenson, Monsanto

Pest Type

O, Other, G-BYRO7, G-OthStg = Other animal or nematode
W, Weed, G-BYRW7, G-WedStg = 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
AMBEL, *Ambrosia artemisiifolia*, Common ragweed = US
CHEAL, *Chenopodium album*, common lambsquarters = US
AMARE, *Amaranthus retroflexus*, Redroot pigweed = US
POLPY, *Persicaria pensylvanica*, annual smartweed = US
SIDSP, *Sida spinosa*, Prickly sida = US

Crop Code

GLXMA, BSOY, *Glycine max*, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury
CONTRO = control / burndown or knockdown

Rating Unit

% = percent