

Purdue Weed Science

Valent Actives in a Roundup Xtend System - Conventional Tillage

Trial ID: 20S-TPAC-SOY-22
 Protocol ID: 20S-TPAC-SOY-22
 Project ID:

Location: TPAC - Throckmorton Purdue Agr Trial Year: 2020
 Investigator (Creator): Eric Ott
 Study Director:
 Sponsor Contact:

General Trial Information

Investigator: Eric Ott

Trial Status: E established **Trial Reliability:** 1 usable data
Initiation Date: 5/8/2020

Trial Location

City: Lafayette **Country:** USA United States
State/Prov.: Indiana
Postal Code: 47905

Latitude of LL Corner °: 40.2917714 N
Longitude of LL Corner °: -86.9092684 W

Conducted Under GLP: No

Conducted Under GEP: No

Study Rules: Default

No.	Guideline	Discipline	Description
1.	ADM-C-PUB	CO	Confidentiality - Public Trial - No Secrecy Agreement Required

Objectives:

To compare Valent PREE and POST actives in a program approach in a Roundup Xtend cropping system. Fierce EZ (6 fl oz/A) and Fierce MTZ (1 pt/A) will be compared to Authority MTZ (11 oz/A) and Zidua Pro (4.5 fl oz/A). Perpetuo (6 fl oz/A) will be compared to Anthem Maxx @ 2.5 fl oz/A. Measures of success are weed control at 21, 42 & 56 DAP with acceptable crop response.

Conclusions:

Roundup Ready
 See test subject list
 Roundup Ready
 See test subject list

Role: INVEST investigator

Investigator: Eric Ott

Crop Description

Crop 1: C GLXM06 Glycine max GMO Soybean, Glyph./Dicamba Tol. **BBCH Scale:** BSOY
Stage Scale: BBCH

Variety: AG29X9

Planting Date: 5/8/2020

Depth: 4.5 cm

Rows per Plot: 4

Row Spacing: 30 IN

Soil Temperature: 55 F

Emergence Date: 5/18/2020

Planting Rate: 157000 S/A

Planting Method: PLANTD planted
Planting Equipment: PP plot planter

Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida

Common Name: Giant ragweed

Stage Scale: BBCH

Pest 2 Type: W **Code:** SETFA Setaria faberi

Common Name: Giant foxtail

Stage Scale: BBCH

Site and Design

Treated Plot Width: 10 FT

Treated Plot Length: 30 FT

Treated Plot Area: 300.0 FT² **Treatments:** 10

Replications: 4

Tillage Type: CONTIL conventional-till

Study Design: RAOBL Randomized Complete Block (RCB)

Soil Description

Description Name: Toronto-Millbrook complex
% Sand: 21 **% OM:** 3.4 **Texture:** SIL silt loam
% Silt: 54 **pH:** 5.8
% Clay: 25 **CEC:** 13.5

Weather Conditions

Closest Weather Station: Throckmorton Purdue Agricultur **Distance:** 0.75 km

No.	Date	Moisture Total	Unit
1.	5/2/2020	0.025	CM
2.	5/3/2020	0.585	CM
3.	5/5/2020	0.481	CM
4.	5/6/2020	0.025	CM
5.	5/10/2020	0.101	CM
6.	5/14/2020	0.405	CM
7.	5/15/2020	0.279	CM
8.	5/17/2020	1.497	CM
9.	5/18/2020	0.914	CM
10.	5/19/2020	0.684	CM
11.	5/23/2020	0.178	CM
12.	5/27/2020	0.025	CM
13.	5/28/2020	0.331	CM
14.	6/4/2020	0.33	CM
15.	6/9/2020	0.787	CM
16.	6/20/2020	0.025	CM
17.	6/21/2020	0.075	CM
18.	6/22/2020	0.711	CM
19.	6/23/2020	0.203	CM
20.	6/27/2020	2.769	CM
21.	6/28/2020	0.229	CM
22.	6/29/2020	0.076	CM
23.	6/30/2020	1.829	CM
24.	7/10/2020	0.05	CM
25.	7/11/2020	0.914	CM
26.	7/12/2020	0.66	CM
27.	7/15/2020	0.127	CM
28.	7/16/2020	0.456	CM
29.	7/19/2020	0.051	CM
30.	7/21/2020	1.423	CM
31.	7/22/2020	0.329	CM
32.	7/23/2020	0.178	CM
33.	7/27/2020	1.295	CM
34.	7/30/2020	1.599	CM

Application Description		
	A	B
Application Date	5/9/2020	6/12/2020
Appl. Start Time	11:05 AM	11:45 AM
Appl. Stop Time	11:28 AM	12:16 PM
Interval to Prev. Appl.		34 DAYS
Application Method	SPRAY	SPRAY
Application Timing	PREPRE	POSPOS
Application Placement	BROADC	BROADC
Applied By	L. Maia	J. Haarmann
Air Temperature Start, Stop	53, - F	83, - F
% Relative Humidity Start, Stop	26, -	48, -
Wind Velocity+Dir. Start	6 MPH, W	3 MPH, N
Wind Velocity+Dir. Max	6 MPH, W	3 MPH, N
Wet Leaves (Y/N)	N, no	N, no
Soil Temperature	48 F	82 F
Soil Moisture	NORMAL	NORMAL
% Cloud Cover	0	0

Protocol Application Directions:
One preemergence application fb one postemergence application.

Crop Stage At Each Application		
	A	B
Crop 1 Code, BBCH Scale	GLXM06, BSOY	GLXM06, BSOY
Days after Emergence	-9	25
Stage Scale Used	BBCH	BBCH
Stage Majority, Percent	00, 100	12, -
Stage Minimum, Percent	00, -	12, -
Stage Maximum, Percent	00, -	13, -
Height Average		3 IN
Height Minimum, Maximum		2.5, 3.5

Pest Stage At Each Application		
	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Stage Majority, Percent	0, 100	16, -
Stage Minimum, Percent		12, -
Stage Maximum, Percent		18, -
Height Average		4 in
Height Minimum, Maximum		1, 12
Density Average		5 FT2
Pest 2 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Stage Majority, Percent	0, 100	13, -
Stage Minimum, Percent		11, -
Stage Maximum, Percent		14, -
Height Average		3 in
Height Minimum, Maximum		0.5, 4
Density Average		2 FT2

Application Equipment

	A	B
Appl. Equipment	CO2 BACKPACK	CO2 BACKPACK
Equipment Type	BACSPR	BACSPR
Nozzle Model	TT110015	TTI110015
Nozzle Type	TEEJAI	TEEJAI
Nozzle Spacing	15 IN	15 IN
Nozzles/Row	8	8
Boom Length	10 FT	10 FT
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC
Mix Overage	0 mL	0 mL
Mix Size	1.8 L	1.8 L
Propellant	COMCO2	COMCO2

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Pest Type	C, GLXM06	W, Weed AMBTR	W, Weed SETFA	C, GLXM06	W, Weed AMBTR			
Pest Code	BSOY	Ambrosia trifida	Setaria faberi	BSOY	Ambrosia trifida			
Pest Scientific Name		ragweed, giant	foxtail, giant		ragweed, giant			
Pest Name								
Crop Type, Code	C, GLXM06			C, GLXM06				
BBCH Scale	BSOY			BSOY				
Crop Scientific Name	Glycine max GMO			Glycine max GMO				
Crop Name	Soybean, Glyph.>			Soybean, Glyph.>				
Rating Date	5/30/2020	5/30/2020	5/30/2020	6/12/2020	6/12/2020			
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C	PLANT, P			
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN	CONTRO			
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100			
Number of Subsamples	1	1	1	1	1			
Rating Timing	21 DAA	21 DAA	21 DAA	0 DAB	0 DAB			
Days After First/Last Applic.	21, 21	21, 21	21, 21	34, 34	34, 34			
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	35 DP-1	35 DP-1			
Days After Emergence	12 DE-1	12 DE-1	12 DE-1	25 DE-1	25 DE-1			
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5
		Rate Unit						
1	UNTREATED CHECK			0.0	0.0	0.0	0.0	0.0
2	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	IN-PLACE	0.5 % V/V	B					
3	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	IN-PLACE	0.5 % V/V	B					
4	FIERCE EZ (2065)	6 FL OZ/A	A	6.3 -	90.8 ab	100.0 -	5.0 cd	67.5 bc
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	IN-PLACE	0.5 % V/V	B					
5	FIERCE MTZ SC (2030)	1 PT/A	A	4.3 -	88.8 bc	100.0 -	3.8 d	68.8 bc
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	IN-PLACE	0.5 % V/V	B					
6	AUTHORITY MTZ	11 OZ WT/A	A	3.0 -	85.0 c	100.0 -	2.5 d	58.8 c
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	ANTHEM MAXX	2.5 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
7	ZIDUA PRO	6 FL OZ/A	A	12.5 -	93.0 ab	100.0 -	15.0 a	85.0 a
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
8	FIERCE EZ (2065)	6 FL OZ/A	A	16.3 -	93.5 ab	100.0 -	12.5 ab	78.8 ab
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
9	FIERCE MTZ SC (2030)	1 PT/A	A	4.0 -	96.0 a	100.0 -	7.5 bcd	76.3 ab
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	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.
 Untreated treatment(s) 1 excluded from analysis.
 Could not calculate LSD (% mean diff) for columns 3,7,10,13 because error mean square = 0.
 ^Calculated from residual.

Pest Type		W, Weed AMBTR	W, Weed SETFA	W, Weed AMBTR			
Pest Code		Ambrosia trifida	Setaria faberi	Ambrosia trifida			
Pest Scientific Name		ragweed, giant	foxtail, giant	ragweed, giant			
Pest Name							
Crop Type, Code	C, GLXM06			C, GLXM06			
BBCH Scale	BSOY			BSOY			
Crop Scientific Name	Glycine max GMO			Glycine max GMO			
Crop Name	Soybean, Glyph.>			Soybean, Glyph.>			
Rating Date	5/30/2020	5/30/2020	5/30/2020	6/12/2020			
Part Rated	PLANT, C	PLANT, P	PLANT, P	PLANT, C			
Rating Type	PHYGEN	CONTRO	CONTRO	PHYGEN			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1			
Rating Timing	21 DAA	21 DAA	21 DAA	0 DAB			
Days After First/Last Applic.	21, 21	21, 21	21, 21	34, 34			
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	35 DP-1			
Days After Emergence	12 DE-1	12 DE-1	12 DE-1	25 DE-1			
Trt Treatment	Rate	Appl	1	2	3	4	5
No. Name	Rate Unit	Code					
10 FIERCE XLT	4 OZ WT/A	A	15.3 -	94.3 a	100.0 -	11.3 abc	78.0 ab
ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
INDUCE	0.25 % V/V	B					
IN-PLACE	0.5 % V/V	B					
LSD P=.05			12.99	5.43	.	7.02	15.27
Standard Deviation			8.74	3.65	0.00	4.72	10.28
CV			99.51	3.99	0.0	57.52	14.03
Grand Mean			8.79	91.61	100.00	8.21	73.29
Levene's F^			0.644	0.277	.	0.683	0.866
Levene's Prob(F)			0.694	0.942	.	0.665	0.535
Rank X2			.	.	.	.	.
P(Rank X2)			.	.	.	.	.
Skewness^			1.6739*	0.4804	.	-0.5982	-0.2282
Kurtosis^			3.7962*	0.2854	.	0.2198	-0.9392
Replicate F			1.919	3.170	0.000	6.880	1.436
Replicate Prob(F)			0.1626	0.0495	1.0000	0.0028	0.2652
Treatment F			1.698	4.213	0.000	4.093	2.923
Treatment Prob(F)			0.1789	0.0080	1.0000	0.0092	0.0360

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^Calculated from residual.

Pest Type			W, Weed		W, Weed	W, Weed	W, Weed	
Pest Code			SETFA		AMBTR	SETFA		
Pest Scientific Name			Setaria faberi		Ambrosia trifida	Setaria faberi		
Pest Name			foxtail, giant		ragweed, giant	foxtail, giant		
Crop Type, Code				C, GLXM06				C, GLXM06
BBCH Scale				BSOY				BSOY
Crop Scientific Name				Glycine max GMO				Glycine max GMO
Crop Name				Soybean, Glyph.>				Soybean, Glyph.>
Rating Date			6/12/2020	7/3/2020	7/3/2020	7/3/2020	7/24/2020	
Part Rated			PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, C	
Rating Type			CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN	
Rating Unit/Min/Max			% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples			1	1	1	1	1	1
Rating Timing			0 DAB	21 DAB	21 DAB	21 DAB	42 DAB	
Days After First/Last Applic.			34, 34	55, 21	55, 21	55, 21	76, 42	
Plant-Eval Interval			35 DP-1	56 DP-1	56 DP-1	56 DP-1	77 DP-1	
Days After Emergence			25 DE-1	46 DE-1	46 DE-1	46 DE-1	67 DE-1	
Trt	Treatment	Rate	Appl	6	7	8	9	10
No.	Name	Rate Unit	Code					
1	UNTREATED CHECK			0.0	0.0	0.0	0.0	0.0
2	ROUNDUP PWR MAX(S)	32 FL OZ/A	B		0.0 -	98.5 -	96.5 c	0.0 -
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	IN-PLACE	0.5 % V/V	B					
3	ROUNDUP PWR MAX(S)	32 FL OZ/A	B		0.0 -	98.5 -	97.3 bc	0.0 -
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	IN-PLACE	0.5 % V/V	B					
4	FIERCE EZ (2065)	6 FL OZ/A	A	97.3 -	0.0 -	99.3 -	98.5 abc	0.0 -
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	IN-PLACE	0.5 % V/V	B					
5	FIERCE MTZ SC (2030)	1 PT/A	A	97.0 -	0.0 -	100.0 -	100.0 a	0.0 -
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	INDUCE	0.25 % V/V	B					
	IN-PLACE	0.5 % V/V	B					
6	AUTHORITY MTZ	11 OZ WT/A	A	90.3 -	0.0 -	99.3 -	96.5 c	0.0 -
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	ANTHEM MAXX	2.5 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
7	ZIDUA PRO	6 FL OZ/A	A	99.3 -	0.0 -	97.8 -	99.3 ab	0.0 -
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
8	FIERCE EZ (2065)	6 FL OZ/A	A	99.3 -	0.0 -	98.8 -	98.5 abc	0.0 -
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					
9	FIERCE MTZ SC (2030)	1 PT/A	A	96.0 -	0.0 -	99.3 -	98.5 abc	0.0 -
	ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
	XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
	PERPETUO	6 FL OZ/A	B					
	IN-PLACE	0.5 % V/V	B					
	INDUCE	0.25 % V/V	B					

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^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	SETFA	AMBTR	SETFA	SETFA	SETFA		
Pest Scientific Name	Setaria faberi	Ambrosia trifida	Setaria faberi	Setaria faberi	Setaria faberi		
Pest Name	foxtail, giant	ragweed, giant	foxtail, giant	foxtail, giant	foxtail, giant		
Crop Type, Code	C, GLXM06				C, GLXM06		
BBCH Scale	BSOY				BSOY		
Crop Scientific Name	Glycine max				Glycine max		
Crop Name	Soybean, Glyph.>				Soybean, Glyph.>		
Rating Date	6/12/2020	7/3/2020	7/3/2020	7/3/2020	7/24/2020		
Part Rated	PLANT, P	PLANT, C	PLANT, P	PLANT, P	PLANT, C		
Rating Type	CONTRO	PHYGEN	CONTRO	CONTRO	PHYGEN		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples	1	1	1	1	1		
Rating Timing	0 DAB	21 DAB	21 DAB	21 DAB	42 DAB		
Days After First/Last Applic.	34, 34	55, 21	55, 21	55, 21	76, 42		
Plant-Eval Interval	35 DP-1	56 DP-1	56 DP-1	56 DP-1	77 DP-1		
Days After Emergence	25 DE-1	46 DE-1	46 DE-1	46 DE-1	67 DE-1		
Trt Treatment No. Name	Rate Rate Unit	Appl Code	6	7	8	9	10
10 FIERCE XLT	4 OZ WT/A	A	98.5 -	0.0 -	100.0 -	100.0 a	0.0 -
ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
INDUCE	0.25 % V/V	B					
IN-PLACE	0.5 % V/V	B					
LSD P=.05			7.73	.	2.13	2.03	.
Standard Deviation			5.21	0.00	1.46	1.39	0.00
CV			5.38	0.0	1.47	1.42	0.0
Grand Mean			96.79	0.00	99.03	98.33	0.00
Levene's F^			0.629	.	0.713	1.563	.
Levene's Prob(F)			0.706	.	0.678	0.183	.
Rank X2			.	.	.	.	.
P(Rank X2)			.	.	.	.	.
Skewness^			-1.9458*	.	-0.544	-0.2618	.
Kurtosis^			7.7042*	.	-0.101	-0.7598	.
Replicate F			1.822	0.000	2.000	1.032	0.000
Replicate Prob(F)			0.1793	1.0000	0.1409	0.3960	1.0000
Treatment F			1.443	0.000	1.013	3.710	0.000
Treatment Prob(F)			0.2528	1.0000	0.4525	0.0059	1.0000

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^Calculated from residual.

Pest Type			W, Weed AMBTR	W, Weed SETFA		W, Weed AMBTR	W, Weed SETFA
Pest Code			Ambrosia trifida	Setaria faberi		Ambrosia trifida	Setaria faberi
Pest Scientific Name			ragweed, giant	foxtail, giant		ragweed, giant	foxtail, giant
Pest Name					C, GLXM06		
Crop Type, Code					BSOY		
BBCH Scale					Glycine max GMO		
Crop Scientific Name					Soybean, Glyph.>		
Crop Name					8/7/2020		
Rating Date			7/24/2020	7/24/2020	8/7/2020	8/7/2020	8/7/2020
Part Rated			PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type			CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max			% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples			1	1	1	1	1
Rating Timing			42 DAB	42 DAB	56 DAB	56 DAB	56 DAB
Days After First/Last Applic.			76, 42	76, 42	90, 56	90, 56	90, 56
Plant-Eval Interval			77 DP-1	77 DP-1	91 DP-1	91 DP-1	91 DP-1
Days After Emergence			67 DE-1	67 DE-1	81 DE-1	81 DE-1	81 DE-1
Trt Treatment	Rate	Appl	11	12	13	14	15
No. Name	Rate Unit	Code					
1 UNTREATED CHECK			0.0	0.0	0.0	0.0	0.0
2 ROUNDUP PWR MAX(S)	32 FL OZ/A	B	90.5 -	80.0 c	0.0 -	95.0 -	87.5 b
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
INDUCE	0.25 % V/V	B					
IN-PLACE	0.5 % V/V	B					
3 ROUNDUP PWR MAX(S)	32 FL OZ/A	B	93.0 -	95.3 ab	0.0 -	95.5 -	98.8 a
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
INDUCE	0.25 % V/V	B					
IN-PLACE	0.5 % V/V	B					
4 FIERCE EZ (2065)	6 FL OZ/A	A	96.0 -	95.3 ab	0.0 -	98.0 -	98.8 a
ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
INDUCE	0.25 % V/V	B					
IN-PLACE	0.5 % V/V	B					
5 FIERCE MTZ SC (2030)	1 PT/A	A	92.5 -	97.5 ab	0.0 -	95.0 -	100.0 a
ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
INDUCE	0.25 % V/V	B					
IN-PLACE	0.5 % V/V	B					
6 AUTHORITY MTZ	11 OZ WT/A	A	95.0 -	88.5 bc	0.0 -	97.5 -	93.8 ab
ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
ANTHEM MAXX	2.5 FL OZ/A	B					
IN-PLACE	0.5 % V/V	B					
INDUCE	0.25 % V/V	B					
7 ZIDUA PRO	6 FL OZ/A	A	94.3 -	100.0 a	0.0 -	96.0 -	100.0 a
ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
IN-PLACE	0.5 % V/V	B					
INDUCE	0.25 % V/V	B					
8 FIERCE EZ (2065)	6 FL OZ/A	A	96.3 -	97.5 ab	0.0 -	98.0 -	98.8 a
ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
IN-PLACE	0.5 % V/V	B					
INDUCE	0.25 % V/V	B					
9 FIERCE MTZ SC (2030)	1 PT/A	A	93.3 -	100.0 a	0.0 -	95.8 -	100.0 a
ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
PERPETUO	6 FL OZ/A	B					
IN-PLACE	0.5 % V/V	B					
INDUCE	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.
Untreated treatment(s) 1 excluded from analysis.
Could not calculate LSD (% mean diff) for columns 3,7,10,13 because error mean square = 0.
^Calculated from residual.

Pest Type			W, Weed AMBTR	W, Weed SETFA		W, Weed AMBTR	W, Weed SETFA
Pest Code			Ambrosia trifida	Setaria faberi		Ambrosia trifida	Setaria faberi
Pest Scientific Name			ragweed, giant	foxtail, giant		ragweed, giant	foxtail, giant
Pest Name					C, GLXM06		
Crop Type, Code					BSOY		
BBCH Scale					Glycine max GMO		
Crop Scientific Name					Soybean, Glyph.>		
Crop Name					8/7/2020	8/7/2020	8/7/2020
Rating Date			7/24/2020	7/24/2020			
Part Rated			PLANT, P	PLANT, P	PLANT, C	PLANT, P	PLANT, P
Rating Type			CONTRO	CONTRO	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max			% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Number of Subsamples			1	1	1	1	1
Rating Timing			42 DAB	42 DAB	56 DAB	56 DAB	56 DAB
Days After First/Last Applic.			76, 42	76, 42	90, 56	90, 56	90, 56
Plant-Eval Interval			77 DP-1	77 DP-1	91 DP-1	91 DP-1	91 DP-1
Days After Emergence			67 DE-1	67 DE-1	81 DE-1	81 DE-1	81 DE-1
Trt Treatment	Rate	Appl	11	12	13	14	15
No. Name	Rate Unit	Code					
10 FIERCE XLT	4 OZ WT/A	A	95.0 -	94.8 ab	0.0 -	99.3 -	98.8 a
ROUNDUP PWR MAX(S)	32 FL OZ/A	B					
XTENDIMAX WITH VAPORGRIP TECH	22 FL OZ/A	B					
INDUCE	0.25 % V/V	B					
IN-PLACE	0.5 % V/V	B					
LSD P=.05			5.94	9.06	.	5.27	7.09
Standard Deviation			4.07	6.21	0.00	3.61	4.86
CV			4.33	6.59	0.0	3.73	4.99
Grand Mean			93.97	94.31	0.00	96.67	97.36
Levene's F^			0.942	1.104	.	1.357	0.647
Levene's Prob(F)			0.499	0.391	.	0.259	0.732
Rank X2			.	.	.	.	.
P(Rank X2)			.	.	.	.	.
Skewness^			-0.6015	-1.1911*	.	-0.4919	-1.4033*
Kurtosis^			-0.2186	3.8197*	.	0.6364	4.2626*
Replicate F			3.322	2.711	0.000	2.779	2.853
Replicate Prob(F)			0.0367	0.0675	1.0000	0.0630	0.0584
Treatment F			0.821	4.221	0.000	0.734	2.941
Treatment Prob(F)			0.5920	0.0028	1.0000	0.6613	0.0193

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.
Untreated treatment(s) 1 excluded from analysis.
Could not calculate LSD (% mean diff) for columns 3,7,10,13 because error mean square = 0.
^Calculated from residual.

Purdue Weed Science

Valent Actives in a Roundup Xtend System - Conventional Tillage

Trial ID: 20S-TPAC-SOY-22
Protocol ID: 20S-TPAC-SOY-22
Project ID:

Location: TPAC - Throckmorton Purdue Agr Trial Year: 2020
Investigator (Creator): Eric Ott
Study Director:
Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, ragweed, giant = US

SETFA, Setaria faberi, foxtail, giant = US

Crop Type Code

C = EPP0 species (Bayer) codes

Part Rated

PLANT = plant

C = Crop is Part Rated

P = Pest is Part Rated

Rating Type

PHYGEN = phytotoxicity - general / injury

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

22 DP-1 = 1 GLXM06 5/8/2020

35 DP-1 = 1 GLXM06 5/8/2020

56 DP-1 = 1 GLXM06 5/8/2020

77 DP-1 = 1 GLXM06 5/8/2020

91 DP-1 = 1 GLXM06 5/8/2020