Purdue Weed Science

Valent Actives in a Roundup XtendFlex System - Conventional Tillage

Trial ID: 21S-TPAC-SOY-09 Location: TPAC Trial Year: 2021
Protocol ID: 21S-TPAC-SOY-09 Investigator (Creator): Dr. Bill Johnson
Project ID: Study Director: Brent Mansfield
Sponsor Contact: Eric Ott - Valent

General Trial Information
Study Director: Brent Mansfield **Title:** Research Associate
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide
Trial Status: E established **Trial Reliability:** 1 usable data
ARM Trial Created On: 5/15/2021
Initiation Date: 5/15/2021

Trial Location
City: Lafayette **Country:** USA United States
State/Prov.: Indiana
Postal Code: 47907

Latitude of LL Corner °: 40.291774 N
Longitude of LL Corner °: -86.906013 W

Conducted Under GLP: No
Conducted Under GEP: No

Contacts
Study Director: Brent Mansfield **Title:** Research Associate
Organization: Purdue University
Address 1: 915 W. State Street
Country: USA United States **E-mail:** brentmansfield@purdue.edu
City: West Lafayette **State/Prov:** IN **Postal Code:** 47907
Investigator: Dr. Bill Johnson **Title:** Professor
Organization: Purdue University
Address 1: 915 W. State Street
Country: USA United States **E-mail:** wgj@purdue.edu
City: West Lafayette **State/Prov:** IN **Postal Code:** 47907
Sponsor: Eric Ott - Valent
Cooperator: Jay Young **Title:** Superintendent
Organization: Purdue University
Address 1: 8343 US 231 S **Phone No.:** 765-538-3422
Country: USA United States **E-mail:** jayyoung@purdue.edu
City: Lafayette **State/Prov:** IN **Postal Code:** 47909

Crop Description
Crop 1: C GLXMA Glycine max Soybean
Stage Scale: BBCH
Variety: AG29XF1
Attributes: XtendFlex: Gly-R, Glu-R, Dicamba-R
Planting Date: 5/15/2021 **Planting Rate:** 140000 S/A
Depth: 1.75 IN
Rows per Plot: 4 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** PP plot planter
Soil Temperature: 60 F **Soil Moisture:** NORMAL normal, adequate
Emergence Date: 5/23/2021
Harvest Date: 10/21/2021
Harvested Width: 8.75 FT
% Standard Moisture: 13 **Harvested Length:** 27 FT

Pest Description
Pest 1 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** 12/10/2021
Common Name: Giant ragweed **Stage Scale:** BBCH

Pest 2 Type: W **Code:** ECHCG Echinochloa crus-galli **Entry Date:** 12/10/2021
Common Name: common barnyardgrass **Stage Scale:** BBCH

Pest 3 Type: W **Code:** CHEAL Chenopodium album **Entry Date:** 3/3/2022
Common Name: common lambsquarters **Stage Scale:** BBCH

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: 300.0 FT2 **Treatments:** 7 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Study Design:** RACOBL Randomized Complete Block (RCB)

Soil Description
Description Name: TPAC- Field 4AE
% Sand: 21 **% OM:** 2.8 **Texture:** SIL silt loam
% Silt: 54 **pH:** 6.7 **Soil Name:** Toronto-Millbrook Complex
% Clay: 25 **CEC:** 10.9 **Fert. Level:** G good

Weather Conditions
Closest Weather Station: TPAC **Distance:** 0.5 MI

No.	Date	Moisture Total	Unit	Min Temp	Max Temp	Temp Unit
1.	5/1/2021	0	IN	40	63	F
2.	5/2/2021	0	IN	49	74	F
3.	5/3/2021	0.26	IN	56	78	F
4.	5/4/2021	0.01	IN	55	66	F
5.	5/5/2021	0.04	IN	43	59	F
6.	5/6/2021	0	IN	42	61	F
7.	5/7/2021	0.25	IN	38	58	F
8.	5/8/2021	0	IN	32	63	F
9.	5/9/2021	1.43	IN	40	57	F
10.	5/10/2021	0.37	IN	37	47	F
11.	5/11/2021	0.09	IN	39	59	F
12.	5/12/2021	0	IN	36	61	F
13.	5/13/2021	0	IN	38	60	F
14.	5/14/2021	0	IN	41	66	F
15.	5/15/2021	0	IN	46	70	F
16.	5/16/2021	0	IN	53	71	F
17.	5/17/2021	0.35	IN	55	71	F
18.	5/18/2021	0.12	IN	58	63	F
19.	5/19/2021	0	IN	59	72	F
20.	5/20/2021	0	IN	64	75	F
21.	5/21/2021	0	IN	64	84	F
22.	5/22/2021	0	IN	63	83	F
23.	5/23/2021	0	IN	63	85	F
24.	5/24/2021	0	IN	68	85	F
25.	5/25/2021	0	IN	67	88	F
26.	5/26/2021	0.32	IN	66	87	F
27.	5/27/2021	0.19	IN	58	81	F
28.	5/28/2021	0.08	IN	60	80	F
29.	5/29/2021	0.47	IN	43	61	F
30.	5/30/2021	0	IN	41	63	F
31.	5/31/2021	0	IN	43	71	F
32.	6/1/2021	0	IN	57	71	F
33.	6/2/2021	0.04	IN	58	74	F
34.	6/3/2021	0.03	IN	59	87	F
35.	6/4/2021	0	IN	61	82	F
36.	6/5/2021	0	IN	63	88	F
37.	6/6/2021	0	IN	66	86	F
38.	6/7/2021	0.01	IN	69	83	F
39.	6/8/2021	0.1	IN	69	83	F
40.	6/9/2021	0	IN	70	85	F
41.	6/10/2021	0	IN	67	85	F
42.	6/11/2021	0	IN	69	85	F
43.	6/12/2021	0	IN	67	90	F
44.	6/13/2021	0	IN	69	93	F
45.	6/14/2021	0	IN	63	86	F
46.	6/15/2021	0	IN	57	83	F
47.	6/16/2021	0	IN	53	81	F
48.	6/17/2021	0	IN	53	82	F
49.	6/18/2021	0.01	IN	61	86	F
50.	6/19/2021	0.47	IN	67	93	F

51.	6/20/2021	0	IN	67	81	F
52.	6/21/2021	0.1	IN	70	86	F
53.	6/22/2021	0	IN	49	72	F
54.	6/23/2021	0	IN	54	74	F
55.	6/24/2021	0	IN	60	77	F
56.	6/25/2021	1.19	IN	63	79	F
57.	6/26/2021	0.83	IN	70	81	F
58.	6/27/2021	1.05	IN	69	85	F
59.	6/28/2021	0.11	IN	69	86	F
60.	6/29/2021	0	IN	72	88	F
61.	6/30/2021	0	IN	72	89	F
62.	7/1/2021	0.35	IN	70	78	F
63.	7/2/2021	0	IN	55	82	F
64.	7/3/2021	0	IN	53	75	F
65.	7/4/2021	0	IN	57	78	F
66.	7/5/2021	0	IN	67	85	F
67.	7/6/2021	0	IN	68	86	F
68.	7/7/2021	0	IN	71	86	F
69.	7/8/2021	1.29	IN	67	86	F
70.	7/9/2021	0.05	IN	59	80	F
71.	7/10/2021	0.03	IN	61	73	F
72.	7/11/2021	0.1	IN	65	76	F
73.	7/12/2021	1.3	IN	66	76	F
74.	7/13/2021	0.4	IN	67	82	F
75.	7/14/2021	0.08	IN	65	79	F
76.	7/15/2021	0	IN	66	82	F
77.	7/16/2021	0.16	IN	69	86	F
78.	7/17/2021	0.1	IN	66	78	F
79.	7/18/2021	0.01	IN	66	80	F
80.	7/19/2021	0	IN	61	83	F
81.	7/20/2021	0	IN	61	82	F
82.	7/21/2021	0	IN	64	83	F
83.	7/22/2021	0	IN	64	79	F
84.	7/23/2021	0	IN	67	83	F
85.	7/24/2021	0	IN	71	86	F
86.	7/25/2021	0	IN	69	87	F
87.	7/26/2021	0	IN	65	88	F
88.	7/27/2021	0	IN	62	87	F
89.	7/28/2021	0	IN	66	86	F
90.	7/29/2021	0	IN	70	87	F
91.	7/30/2021	0	IN	65	88	F
92.	7/31/2021	0	IN	62	78	F

Application Description

	A	B	C
Application Date	5/15/2021	6/11/2021	6/29/2021
Appl. Start Time	5:53 PM	12:19 PM	2:25 PM
Appl. Stop Time	6:06 PM	1:05 PM	2:35 PM
Application Method	SPRAY	SPRAY	SPRAY
Application Timing	PREPRE	POSPOS	POSPOS
Application Placement	BROSOI	BROFOL	BROFOL
Applied By	M. ZIMMER	C. BLAND	L. BLAND
Air Temperature Start, Stop	69, 69 F	90, 90 F	93, 93 F
% Relative Humidity Start, Stop	32, 32	55, 55	64, 64
Wind Velocity+Dir. Start	2.4 MPH, S	4.8 MPH, S	4.4 MPH, S
Wet Leaves (Y/N)	N, no	N, no	N, no
Soil Temperature	60 F	90 F	96 F
Soil Moisture	NORMAL	DRY	NORMAL
% Cloud Cover	85	15	85

Comment:
Application B was for treatments 5, 6, and 7

Application C was for treatments 2, 3, and 4

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-8	19	37
Stage Majority, Percent	00, -	13, -	16, -
Stage Minimum, Percent	00, -	13, -	16, -
Stage Maximum, Percent	00, -	13, -	60, -
Height Average	0 IN	6 IN	9 IN

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Stage Majority, Percent	00, -	16, -	18, -
Stage Minimum, Percent	00, -	14, -	12, -
Stage Maximum, Percent	00, -	18, -	19, -
Height Average	0 IN	4 IN	12 IN
Density Average		4 FT2	6 FT2
Pest 2 Code, Type, Scale	ECHCG, W, BBCH	ECHCG, W, BBCH	ECHCG, W, BBCH
Stage Majority, Percent	00, -	13, -	00, -
Stage Minimum, Percent	00, -	12, -	00, -
Stage Maximum, Percent	00, -	13, -	00, -
Height Average	0 IN	2 IN	0 IN
Density Average		1 FT2	
Pest 3 Code, Type, Scale	CHEAL, W, BBCH	CHEAL, W, BBCH	CHEAL, W, BBCH

Application Equipment

	A	B	C
Appl. Equipment	CO2 BACKPACK	CO2 BACKPACK	CO2 BACKPACK
Equipment Type	BACSPR	BACSPR	BACSPR
Operation Pressure	26 PSI	26 PSI	26 PSI
Nozzle Model	TTI	TT	TTI
Nozzle Type	TEEJAI	TEEJTU	TEEJAI
Nozzle TradeName	TEEJET	TEEJET	TEEJET
Nozzle Tip Size, Color	110015, GREEN	110015, GREEN	110015, GREEN
Nozzle Spacing	15 IN	15 IN	15 IN
Nozzles/Row	8	8	8
Boom Length	10 FT	10 FT	10 FT
Boom Height	17 IN	24.0 IN	26.0 IN
Ground Speed	3 MPH	3 MPH	3 MPH
Carrier	WATER	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC	15 GAL/AC
Mix Size	1.8 L	1.8 L	1.8 L
Propellant	COMCO2	COMCO2	COMCO2

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Trial ID: 21S-TPAC-SOY-09 Location: TPAC Trial Year: 2021
Protocol ID: 21S-TPAC-SOY-09 Investigator (Creator): Dr. Bill Johnson
Project ID: Study Director: Brent Mansfield
Sponsor Contact: Eric Ott - Valent

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1	2	3	4	5	6
	Pest Type							W, Weed	W, Weed	W, Weed
	Pest Code							AMBTR	ECHCG	AMBTR
	Pest Name							Giant ragweed	common barnyard>	Giant ragweed
	Crop Type, Code				C, GLXMA	C, GLXMA	C, GLXMA			
	Crop Name				Soybean	Soybean	Soybean			
	Rating Date				5/29/2021	6/11/2021	6/29/2021	5/29/2021	5/29/2021	6/11/2021
	Rating Type				PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO
	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
	Data Entry Date				2/18/2022	2/18/2022	3/3/2022	2/18/2022	3/3/2022	3/3/2022
	Rating Timing				14 DAA	27 DAA	45 DAA	14 DAA	14 DAA	27 DAA
	Days After First/Last Applic.				14, 14	27, 27	45, 18	14, 14	14, 14	27, 27
	Trt-Eval Interval				-13 DA-B	0 DA-B	18 DA-B			
	Days After Emergence				6 DE-1	19 DE-1	37 DE-1	6 DE-1	6 DE-1	19 DE-1
	ARM Action Codes									
	Number of Decimals									
1	NONTREATED				0.0	0.0	0.0	0.0	0.0	0.0
2	FIERCE EZ	6	FL OZ/A	A	0.0 -	0.0 -	0.0 -	83.8 -	100.0 -	70.0 -
	ROUNDUP POWERMAX	32	FL OZ/A	C						
	XTENDIMAX	22	FL OZ/A	C						
	PERPETUO	6	FL OZ/A	C						
	SELECT MAX	9	FL OZ/A	C						
	INDUCE	0.25	% V/V	C						
	INTACT	0.5	% V/V	C						
	VOLIMINATE	20	FL OZ/A	C						
3	FIERCE MTZ	1	PT/A	A	0.0 -	0.0 -	0.0 -	93.8 -	100.0 -	81.3 -
	ROUNDUP POWERMAX	32	FL OZ/A	C						
	XTENDIMAX	22	FL OZ/A	C						
	PERPETUO	6	FL OZ/A	C						
	SELECT MAX	9	FL OZ/A	C						
	INDUCE	0.25	% V/V	C						
	INTACT	0.5	% V/V	C						
	VOLIMINATE	20	FL OZ/A	C						
4	FIERCE XLT	4	OZ/A	A	0.0 -	0.0 -	0.0 -	90.8 -	100.0 -	82.5 -
	ROUNDUP POWERMAX	32	FL OZ/A	C						
	XTENDIMAX	22	FL OZ/A	C						
	PERPETUO	6	FL OZ/A	C						
	SELECT MAX	9	FL OZ/A	C						
	INDUCE	0.25	% V/V	C						
	INTACT	0.5	% V/V	C						
	VOLIMINATE	20	FL OZ/A	C						
5	FIERCE EZ	6	FL OZ/A	A	0.0 -	0.0 -		75.0 -	100.0 -	51.3 -
	SCOUT	32	FL OZ/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	INDUCE	0.25	% V/V	B						
	AMSOL	4.4	% V/V	B						
6	FIERCE MTZ	16	FL OZ/A	A	0.0 -	0.0 -		75.0 -	100.0 -	55.0 -
	SCOUT	32	FL OZ/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	INDUCE	0.25	% V/V	B						
	AMSOL	4.4	% 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.
Missing data estimates are included in columns:Average=4,6,11,12,13
Could not calculate LSD (% mean diff) for columns 1,2,3,5 because error mean square = 0.
^Calculated from residual.

Pest Type						W, Weed	W, Weed	W, Weed
Pest Code						AMBTR	ECHCG	AMBTR
Pest Name						Giant ragweed	common barnyard>	Giant ragweed
Crop Type, Code			C, GLXMA	C, GLXMA	C, GLXMA			
Crop Name			Soybean	Soybean	Soybean			
Rating Date			5/29/2021	6/11/2021	6/29/2021	5/29/2021	5/29/2021	6/11/2021
Rating Type			PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO
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
Data Entry Date			2/18/2022	2/18/2022	3/3/2022	2/18/2022	3/3/2022	3/3/2022
Rating Timing			14 DAA	27 DAA	45 DAA	14 DAA	14 DAA	27 DAA
Days After First/Last Applic.			14, 14	27, 27	45, 18	14, 14	14, 14	27, 27
Trt-Eval Interval			-13 DA-B	0 DA-B	18 DA-B			
Days After Emergence			6 DE-1	19 DE-1	37 DE-1	6 DE-1	6 DE-1	19 DE-1
ARM Action Codes								
Number of Decimals								
Trt No.	Treatment Name	Rate Rate Unit	Appl Code	1	2	3	4	5	6
7	FIERCE XLT	4 OZ/A	A	0.0 -	0.0 -		94.5 -	100.0 -	83.0 -
	SCOUT	32 FL OZ/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	INDUCE	0.25 % V/V	B						
	AMSOL	4.4 % V/V	B						
LSD P=.05				.	.	.	19.12	.	29.71
Standard Deviation				0.00	0.00	0.00	12.61	0.00	19.59
CV				0.0	0.0	0.0	14.75	0.0	27.79
Grand Mean				0.00	0.00	0.00	85.46	100.00	70.50
Levene's F^				.	.	.	0.569	.	1.242
Levene's Prob(F)				.	.	.	0.723	.	0.333
Rank X2				.	.	.	.	.	.
P(Rank X2)				.	.	.	.	.	.
Skewness^				.	.	.	-0.8098	.	-0.8649
Kurtosis^				.	.	.	1.4114	.	1.5267
Replicate F				0.000	0.000	0.000	1.011	0.000	0.761
Replicate Prob(F)				1.0000	1.0000	1.0000	0.4171	1.0000	0.5345
Treatment F				0.000	0.000	0.000	2.014	0.000	2.140
Treatment Prob(F)				1.0000	1.0000	1.0000	0.1388	1.0000	0.1204

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Untreated treatment(s) 1 excluded from analysis.
Missing data estimates are included in columns:Average=4,6,11,12,13
Could not calculate LSD (% mean diff) for columns 1,2,3,5 because error mean square = 0.
^Calculated from residual.

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		
	Pest Code				CHEAL	ECHCG	AMBTR	ECHCG		
	Pest Name				common lambsqua>	common barnyard>	Giant ragweed	common barnyard>		
	Crop Type, Code								C, GLXMA	C, GLXMA
	Crop Name								Soybean	Soybean
	Rating Date				6/11/2021	6/11/2021	6/29/2021	6/29/2021	10/21/2021	10/21/2021
	Rating Type				CONTRO	CONTRO	CONTRO	CONTRO	WEIGHT	MOICON
	Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	#, -, -	%, 0, 100
	Number of Subsamples				1	1	1	1	1	1
	Data Entry Date				3/3/2022	3/3/2022	3/3/2022	3/3/2022	3/3/2022	3/3/2022
	Rating Timing				27 DAA	27 DAA	45 DAA	45 DAA	HARVEST	HARVEST
	Days After First/Last Applic.				27, 27	27, 27	45, 18	45, 18	159, 114	159, 114
	Trt-Eval Interval									
	Days After Emergence				19 DE-1	19 DE-1	37 DE-1	37 DE-1	151 DE-1	151 DE-1
	ARM Action Codes									
	Number of Decimals									
1	NONTREATED				0.0	0.0	0.0	0.0	6.900	13.83
2	FIERCE EZ	6	FL OZ/A	A	97.5 -	94.8 -	52.5 -	91.3 -	18.533 a	14.53 -
	ROUNDUP POWERMAX	32	FL OZ/A	C						
	XTENDIMAX	22	FL OZ/A	C						
	PERPETUO	6	FL OZ/A	C						
	SELECT MAX	9	FL OZ/A	C						
	INDUCE	0.25	% V/V	C						
	INTACT	0.5	% V/V	C						
	VOLIMINATE	20	FL OZ/A	C						
3	FIERCE MTZ	1	PT/A	A	100.0 -	94.3 -	65.0 -	91.3 -	21.123 a	14.30 -
	ROUNDUP POWERMAX	32	FL OZ/A	C						
	XTENDIMAX	22	FL OZ/A	C						
	PERPETUO	6	FL OZ/A	C						
	SELECT MAX	9	FL OZ/A	C						
	INDUCE	0.25	% V/V	C						
	INTACT	0.5	% V/V	C						
	VOLIMINATE	20	FL OZ/A	C						
4	FIERCE XLT	4	OZ/A	A	100.0 -	96.5 -	65.0 -	93.8 -	18.318 ab	13.05 -
	ROUNDUP POWERMAX	32	FL OZ/A	C						
	XTENDIMAX	22	FL OZ/A	C						
	PERPETUO	6	FL OZ/A	C						
	SELECT MAX	9	FL OZ/A	C						
	INDUCE	0.25	% V/V	C						
	INTACT	0.5	% V/V	C						
	VOLIMINATE	20	FL OZ/A	C						
5	FIERCE EZ	6	FL OZ/A	A	99.3 -	95.0 -			11.500 c	14.20 -
	SCOUT	32	FL OZ/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	INDUCE	0.25	% V/V	B						
	AMSOL	4.4	% V/V	B						
6	FIERCE MTZ	16	FL OZ/A	A	97.5 -	97.8 -			14.693 bc	12.78 -
	SCOUT	32	FL OZ/A	B						
	PERPETUO	6	FL OZ/A	B						
	SELECT MAX	9	FL OZ/A	B						
	INDUCE	0.25	% V/V	B						
	AMSOL	4.4	% V/V	B						

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Pest Type			W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code			CHEAL	ECHCG	AMBTR	ECHCG		
Pest Name			common lambsqua>	common barnyard>	Giant ragweed	common barnyard>		
Crop Type, Code							C, GLXMA	C, GLXMA
Crop Name							Soybean	Soybean
Rating Date			6/11/2021	6/11/2021	6/29/2021	6/29/2021	10/21/2021	10/21/2021
Rating Type			CONTRO	CONTRO	CONTRO	CONTRO	WEIGHT	MOICON
Rating Unit/Min/Max			%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	#, -, -	%, 0, 100
Number of Subsamples			1	1	1	1	1	1
Data Entry Date			3/3/2022	3/3/2022	3/3/2022	3/3/2022	3/3/2022	3/3/2022
Rating Timing			27 DAA	27 DAA	45 DAA	45 DAA	HARVEST	HARVEST
Days After First/Last Applic.			27, 27	27, 27	45, 18	45, 18	159, 114	159, 114
Trt-Eval Interval								
Days After Emergence			19 DE-1	19 DE-1	37 DE-1	37 DE-1	151 DE-1	151 DE-1
ARM Action Codes								
Number of Decimals								
Trt No.	Treatment Name	Rate / Rate Unit	Appl Code	7	8	9	10	11	12
7	FIERCE XLT	4 OZ/A	A	100.0 -	96.8 -			18.337 ab	14.25 -
	SCOUT	32 FL OZ/A	B						
	PERPETUO	6 FL OZ/A	B						
	SELECT MAX	9 FL OZ/A	B						
	INDUCE	0.25 % V/V	B						
	AMSOL	4.4 % V/V	B						
LSD P=.05				4.09	3.34	42.38	6.45	3.8321	1.417
Standard Deviation				2.72	2.22	24.49	3.73	2.5268	0.919
CV				2.74	2.31	40.27	4.05	14.79	6.64
Grand Mean				99.04	95.83	60.83	92.08	17.0836	13.850
Levene's F^				0.136	0.50	1.087	0.75	0.733	0.479
Levene's Prob(F)				0.982	0.773	0.378	0.50	0.609	0.786
Rank X2				.	.	.	.	.	.
P(Rank X2)				.	.	.	.	.	.
Skewness^				-0.8646	-0.4613	-0.5036	-0.654	0.6254	-0.8218
Kurtosis^				0.6824	-0.3869	0.3231	0.4473	0.0401	0.7066
Replicate F				2.085	1.380	0.764	1.750	0.347	2.486
Replicate Prob(F)				0.1452	0.2871	0.5543	0.2561	0.7920	0.1104
Treatment F				0.819	1.520	0.347	0.600	7.317	2.589
Treatment Prob(F)				0.5547	0.2422	0.7200	0.5787	0.0015	0.0821

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.
Missing data estimates are included in columns:Average=4,6,11,12,13
Could not calculate LSD (% mean diff) for columns 1,2,3,5 because error mean square = 0.
^Calculated from residual.

Pest Type					
Pest Code					
Pest Name					
Crop Type, Code					C, GLXMA
Crop Name					Soybean
Rating Date					10/21/2021
Rating Type					YIELD
Rating Unit/Min/Max					BU, -, -
Number of Subsamples					1
Data Entry Date					
Rating Timing					HARVEST
Days After First/Last Applic.					159, 114
Trt-Eval Interval					
Days After Emergence					151 DE-1
ARM Action Codes					TY1
Number of Decimals					1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13
1	NONTREATED				21.0
2	FIERCE EZ	6	FL OZ/A	A	55.9 ab
	ROUNDUP POWERMAX	32	FL OZ/A	C	
	XTENDIMAX	22	FL OZ/A	C	
	PERPETUO	6	FL OZ/A	C	
	SELECT MAX	9	FL OZ/A	C	
	INDUCE	0.25	% V/V	C	
	INTACT	0.5	% V/V	C	
	VOLIMINATE	20	FL OZ/A	C	
3	FIERCE MTZ	1	PT/A	A	63.9 a
	ROUNDUP POWERMAX	32	FL OZ/A	C	
	XTENDIMAX	22	FL OZ/A	C	
	PERPETUO	6	FL OZ/A	C	
	SELECT MAX	9	FL OZ/A	C	
	INDUCE	0.25	% V/V	C	
	INTACT	0.5	% V/V	C	
	VOLIMINATE	20	FL OZ/A	C	
4	FIERCE XLT	4	OZ/A	A	56.3 ab
	ROUNDUP POWERMAX	32	FL OZ/A	C	
	XTENDIMAX	22	FL OZ/A	C	
	PERPETUO	6	FL OZ/A	C	
	SELECT MAX	9	FL OZ/A	C	
	INDUCE	0.25	% V/V	C	
	INTACT	0.5	% V/V	C	
	VOLIMINATE	20	FL OZ/A	C	
5	FIERCE EZ	6	FL OZ/A	A	34.9 c
	SCOUT	32	FL OZ/A	B	
	PERPETUO	6	FL OZ/A	B	
	SELECT MAX	9	FL OZ/A	B	
	INDUCE	0.25	% V/V	B	
	AMSOL	4.4	% V/V	B	
6	FIERCE MTZ	16	FL OZ/A	A	45.3 bc
	SCOUT	32	FL OZ/A	B	
	PERPETUO	6	FL OZ/A	B	
	SELECT MAX	9	FL OZ/A	B	
	INDUCE	0.25	% V/V	B	
	AMSOL	4.4	% 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.
Missing data estimates are included in columns:Average=4,6,11,12,13
Could not calculate LSD (% mean diff) for columns 1,2,3,5 because error mean square = 0.
^Calculated from residual.

Pest Type					
Pest Code					
Pest Name					
Crop Type, Code					C, GLXMA
Crop Name					Soybean
Rating Date					10/21/2021
Rating Type					YIELD
Rating Unit/Min/Max					BU, -, -
Number of Subsamples					1
Data Entry Date					
Rating Timing					HARVEST
Days After First/Last Applic.					159, 114
Trt-Eval Interval					
Days After Emergence					151 DE-1
ARM Action Codes					TY1
Number of Decimals					1
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13
7	FIERCE XLT	4	OZ/A	A	55.6 ab
	SCOUT	32	FL OZ/A	B	
	PERPETUO	6	FL OZ/A	B	
	SELECT MAX	9	FL OZ/A	B	
	INDUCE	0.25	% V/V	B	
	AMSOL	4.4	% V/V	B	
LSD P=.05					11.72
Standard Deviation					7.73
CV					14.87
Grand Mean					51.98
Levene's F^					0.729
Levene's Prob(F)					0.611
Rank X2					.
P(Rank X2)					.
Skewness^					0.6986
Kurtosis^					0.2747
Replicate F					0.434
Replicate Prob(F)					0.7318
Treatment F					7.080
Treatment Prob(F)					0.0017

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Untreated treatment(s) 1 excluded from analysis.
Missing data estimates are included in columns:Average=4,6,11,12,13
Could not calculate LSD (% mean diff) for columns 1,2,3,5 because error mean square = 0.
^Calculated from residual.

Purdue Weed Science

Valent Actives in a Roundup XtendFlex System - Conventional Tillage

Trial ID: 21S-TPAC-SOY-09 Location: TPAC Trial Year: 2021
Protocol ID: 21S-TPAC-SOY-09 Investigator (Creator): Dr. Bill Johnson
Project ID: Study Director: Brent Mansfield
Sponsor Contact: Eric Ott - Valent

Pest Type
W, Weed = Weed or volunteer crop
Pest Code
AMBTR, Ambrosia trifida, Giant ragweed = US
ECHCG, Echinochloa crus-galli, common barnyardgrass = US
CHEAL, Chenopodium album, common lambsquarters = US
Crop Type, Code
C = EPPO species (Bayer) codes
GLXMA, BSOY, Glycine max, Soybean = US
Rating Type
PHYGEN = phytotoxicity - general / injury
CONTRO = control / burndown or knockdown
WEIGHT = weight
MOICON = moisture content
YIELD = yield
Rating Unit/Min/Max
%, 0, 100 = percent
BU, , = bushel
ARM Action Codes
TY1 = 3.07301587*[11]*(100-@MVAVGREP([12]))/87