Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

General Trial Information
Study Director: Dr. Bill Johnson **Title:** Professor
Investigator: Dr. Bill Johnson **Title:** Professor

Discipline: H herbicide
Status: E established
ARM Trial Created On: Mar-25-2023
Initiation Date: May-18-2023 **Planned Completion Date:** Oct-15-2023
Completion Date: Oct-8-2023 **Last Possible Tour Visit:** Oct-7-2023

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

Latitude of LL Corner °: 40.2918 N
Longitude of LL Corner °: -86.90747 W

Regulations
Conducted Under GLP: No
Conducted Under GEP: No

Materials and Methods

Contacts
Role: STYDIR study director
Study Director: 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
Role: INVEST investigator
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
Role: SPONSR sponsor
Sponsor: Steve Mroczkiewicz/Chad Threewits
Organization: Syngenta
Role: COOPER cooperator
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
Role: SPONSR sponsor
Contact Name 5: Eric Ott
Organization: Valent

Crop Description
Crop 1: C GLXMA Glycine max Soybean
Entry Date: Jun-16-2023 **Stage Scale:** BBCH
Variety: Stine 29 EB62
Attributes: Glyphosate-R, Glufosinate-R, and 2,4-D-R
Planting Date: May-18-2023 **Planting Rate:** 140000 S/A
Depth: 1.5 IN
Rows per Plot: 4 **Planting Method:** PLANTD planted
Row Spacing: 30 IN **Planting Equipment:** PP plot planter
Soil Temperature: 70 F **Soil Moisture:** NORMAL normal, adequate
Emergence Date: May-29-2023

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Pest Description

Pest 1 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** Jun-19-2023
Common Name: Giant ragweed **Stage Scale:** BBCH
Attributes: ALS-R

Pest 2 Type: W **Code:** CHEAL Chenopodium album **Entry Date:** Jun-19-2023
Common Name: common lambsquarters **Stage Scale:** BBCH

Pest 3 Type: W **Code:** SETFA Setaria faberi **Entry Date:** Jun-19-2023
Common Name: Giant foxtail **Stage Scale:** BBCH

Pest 4 Type: W **Code:** ECHCG Echinochloa crus-galli **Entry Date:** Jun-19-2023
Common Name: common barnyardgrass **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 **Tillage Type:** CONTIL conventional-till
Replications: 4 **Treatments:** 10 **Plots:** 40 **Study Design:** RACOBL Randomized Complete Block (RCB)

Trial Initiation Comments:
The field was tilled on 05/17/2023 prior to soybean planting.
Field was weed free at planting.

Soil Description

Description Name: TPAC - Field 4 BE
% Sand: 21 **% OM:** 3.4 **Texture:** SIL silt loam
% Silt: 54 **Soil Name:** Toronto-Millbrook Complex
% Clay: 25 **Fert. Level:** G good
pH: 5.8 **CEC:** 13.5

Weather Conditions

Overall Moisture Conditions: DRY dry **Irrigation Type:** RAIN rain
Weather Station Name: TPAC MESONET PURDUE

No.	Date	Moisture Total	Unit	Min Temp	Max Temp	Avg Temp	Temp Unit	Max Wind	Avg Wind	Unit	Avg Soil Temp	Unit
1.	May-15-2023	0.04	IN	55	76	63	F	15	3.6	MPH	64.2	F
2.	May-16-2023	0.01	IN	56	74	63	F	16.8	3.1	MPH	64.2	F
3.	May-17-2023	0	IN	51	73	61	F	17.9	5.4	MPH	63.9	F
4.	May-18-2023	0	IN	45	77	62	F	15	2.9	MPH	63.1	F
5.	May-19-2023	0.59	IN	56	83	66	F	30.4	7.6	MPH	63.3	F
6.	May-20-2023	0	IN	49	67	58	F	19	3.8	MPH	63.7	F
7.	May-21-2023	0	IN	46	81	64	F	14.3	1.1	MPH	63.9	F
8.	May-22-2023	0	IN	52	84	70	F	11.9	0.9	MPH	65.7	F
9.	May-23-2023	0	IN	56	86	72	F	15.4	1.3	MPH	67.1	F
10.	May-24-2023	0	IN	55	86	73	F	22.6	5.4	MPH	67.6	F
11.	May-25-2023	0	IN	49	72	60	F	23.3	9.2	MPH	65.1	F
12.	May-26-2023	0	IN	46	77	62	F	22.6	4.5	MPH	64.4	F
13.	May-27-2023	0	IN	48	78	66	F	7.2	0	MPH	64.2	F
14.	May-28-2023	0	IN	57	83	71	F	4.3	0	MPH	66.4	F
15.	May-29-2023	0	IN	58	89	75	F	6.5	0	MPH	69.1	F
16.	May-30-2023	0	IN	61	91	77	F	15.4	0.7	MPH	69.8	F
17.	May-31-2023	0	IN	66	91	78	F	20.4	3.6	MPH	71.6	F
18.	Jun-1-2023	0	IN	64	92	79	F	17.2	2.5	MPH	73.6	F
19.	Jun-2-2023	0	IN	62	92	79	F	13.2	0.7	MPH	74.5	F
20.	Jun-3-2023	0	IN	65	94	80	F	16.1	1.8	MPH	75.4	F
21.	Jun-4-2023	0	IN	64	84	74	F	17.9	6.5	MPH	75.4	F
22.	Jun-5-2023	0	IN	55	83	70	F	13.2	0	MPH	71.8	F
23.	Jun-6-2023	0	IN	54	88	71	F	7.2	0	MPH	71.6	F
24.	Jun-7-2023	0	IN	54	80	69	F	16.1	1.3	MPH	73.4	F

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25.	Jun-8-2023	0	IN	47	80	65	F	1.8	0	MPH	72	F
26.	Jun-9-2023	0	IN	47	82	67	F	7.2	0	MPH	72.1	F
27.	Jun-10-2023	0	IN	55	87	73	F	13.2	0	MPH	74.1	F
28.	Jun-11-2023	0.38	IN	55	69	64	F	22.6	4	MPH	70.3	F
29.	Jun-12-2023	0	IN	54	69	63	F	25.1	5.6	MPH	70.5	F
30.	Jun-13-2023	0.05	IN	56	71	62	F	18.8	7.8	MPH	65.3	F
31.	Jun-14-2023	0	IN	59	79	68	F	14.1	2.9	MPH	68.9	F
32.	Jun-15-2023	0	IN	58	87	71	F	19.9	7.2	MPH	70.9	F
33.	Jun-16-2023	0	IN	51	76	63	F	14.1	4.3	MPH	69.3	F
34.	Jun-17-2023	0	IN	51	84	69	F	12.1	2.5	MPH	70.9	F
35.	Jun-18-2023	0	IN	58	86	73	F	18.1	4.5	MPH	73.4	F
36.	Jun-19-2023	0	IN	69	87	80	F	22.4	6.9	MPH	76.8	F
37.	Jun-20-2023	0	IN	65	89	76	F	27.1	8.9	MPH	76.8	F
38.	Jun-21-2023	0	IN	65	89	77	F	23.9	7.4	MPH	78.1	F
39.	Jun-22-2023	0	IN	64	84	73	F	21.5	5.4	MPH	77.9	F
40.	Jun-23-2023	0	IN	67	86	74	F	11.2	2.5	MPH	77.2	F
41.	Jun-24-2023	0	IN	61	92	78	F	15	3.6	MPH	77.7	F
42.	Jun-25-2023	0.93	IN	68	89	78	F	36	10.1	MPH	76.8	F
43.	Jun-26-2023	0	IN	66	77	71	F	26.6	8.9	MPH	72.9	F
44.	Jun-27-2023	0	IN	60	77	67	F	14.5	4	MPH	70.9	F
45.	Jun-28-2023	0	IN	54	83	69	F	17	2.5	MPH	70.9	F
46.	Jun-29-2023	0.38	IN	65	85	71	F	44.7	7.4	MPH	71.8	F
47.	Jun-30-2023	0	IN	63	86	75	F	21	3.6	MPH	73.4	F
48.	Jul-1-2023	0.45	IN	69	88	76	F	31.3	5.1	MPH	76.1	F
49.	Jul-2-2023	0.65	IN	66	83	74	F	28.6	6.9	MPH	75.7	F
50.	Jul-3-2023	0	IN	66	88	75	F	14.5	4.7	MPH	76.3	F
51.	Jul-4-2023	0	IN	65	91	78	F	14.1	2.9	MPH	78.1	F
52.	Jul-5-2023	0.01	IN	68	90	79	F	25.1	5.1	MPH	79.3	F
53.	Jul-6-2023	0.01	IN	68	84	75	F	16.6	3.8	MPH	78.6	F
54.	Jul-7-2023	0	IN	61	84	73	F	11.4	2.7	MPH	77.7	F
55.	Jul-8-2023	0.75	IN	62	76	69	F	17.7	3.1	MPH	75.6	F
56.	Jul-9-2023	0	IN	57	82	69	F	11.6	2.2	MPH	74.5	F
57.	Jul-10-2023	0	IN	59	82	72	F	12.5	4	MPH	75.4	F
58.	Jul-11-2023	0	IN	63	85	74	F	21.3	7.2	MPH	75.6	F
59.	Jul-12-2023	0	IN	69	86	77	F	23	6.3	MPH	76.3	F
60.	Jul-13-2023	0	IN	64	80	71	F	10.1	2.9	MPH	75.4	F
61.	Jul-14-2023	0	IN	61	88	76	F	14.8	4.5	MPH	76.1	F
62.	Jul-15-2023	1.59	IN	67	83	74	F	20.8	4	MPH	75.9	F
63.	Jul-16-2023	0	IN	63	83	73	F	17.4	4.9	MPH	75.4	F
64.	Jul-17-2023	0.14	IN	65	81	72	F	12.8	3.6	MPH	74.7	F
65.	Jul-18-2023	0	IN	63	82	72	F	9.6	2.2	MPH	74.8	F
66.	Jul-19-2023	0	IN	57	86	73	F	9.2	1.8	MPH	74.7	F
67.	Jul-20-2023	0	IN	67	88	76	F	22.1	5.4	MPH	76.5	F
68.	Jul-21-2023	0	IN	62	81	71	F	11.9	2.5	MPH	75	F
69.	Jul-22-2023	0	IN	58	83	71	F	9.2	1.8	MPH	73.9	F
70.	Jul-23-2023	0	IN	59	86	72	F	14.1	3.4	MPH	73.6	F
71.	Jul-24-2023	0	IN	64	88	76	F	9.6	2.2	MPH	75.2	F
72.	Jul-25-2023	0	IN	62	87	76	F	11.4	2.7	MPH	75.2	F
73.	Jul-26-2023	0.06	IN	71	89	80	F	25.1	8.5	MPH	76.1	F
74.	Jul-27-2023	0	IN	74	95	83	F	11.6	3.4	MPH	78.4	F
75.	Jul-28-2023	0.48	IN	70	90	81	F	36.2	6.3	MPH	79.2	F
76.	Jul-29-2023	0.73	IN	67	85	75	F	32	4.5	MPH	78.1	F

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77.	Jul-30-2023	0	IN	62	85	73	F	15.7	2.9	MPH	76.3	F
78.	Jul-31-2023	0	IN	57	81	69	F	11.9	2.5	MPH	74.7	F
79.	Aug-1-2023	0	IN	56	82	71	F	10.3	2	MPH	73.4	F
80.	Aug-2-2023	0	IN	62	84	72	F	12.3	3.6	MPH	74.7	F
81.	Aug-3-2023	0	IN	64	89	75	F	11.6	1.8	MPH	77.5	F
82.	Aug-4-2023	0	IN	61	91	77	F	8.5	1.8	MPH	78.8	F
83.	Aug-5-2023	1.27	IN	69	80	74	F	29.8	5.6	MPH	76.8	F
84.	Aug-6-2023	0	IN	64	78	69	F	18.1	5.8	MPH	74.3	F
85.	Aug-7-2023	0.15	IN	65	78	70	F	17.2	3.4	MPH	74.3	F
86.	Aug-8-2023	0.46	IN	60	82	69	F	22.1	4	MPH	74.5	F
87.	Aug-9-2023	0.5	IN	61	81	69	F	19.9	2.7	MPH	73.9	F
88.	Aug-10-2023	0	IN	63	80	71	F	15.4	3.8	MPH	75	F
89.	Aug-11-2023	0	IN	64	84	74	F	22.1	5.6	MPH	75.2	F
90.	Aug-12-2023	0.35	IN	65	85	75	F	20.1	5.6	MPH	76.1	F
91.	Aug-13-2023	0	IN	63	85	74	F	11.4	3.1	MPH	76.1	F
92.	Aug-14-2023	0.08	IN	65	77	70	F	18.3	5.1	MPH	74.7	F
93.	Aug-15-2023	0	IN	59	75	66	F	19	5.6	MPH	71.8	F
94.	Aug-16-2023	0	IN	55	80	68	F	9.8	2.7	MPH	71.6	F
95.	Aug-17-2023	0.25	IN	60	78	68	F	24.2	7.2	MPH	71.2	F
96.	Aug-18-2023	0	IN	53	77	65	F	12.8	2.2	MPH	70.5	F
97.	Aug-19-2023	0	IN	57	81	69	F	16.1	4.3	MPH	70.9	F
98.	Aug-20-2023	0	IN	66	91	78	F	11.9	3.4	MPH	73.6	F
99.	Aug-21-2023	0	IN	73	91	82	F	11.9	3.4	MPH	76.8	F
100.	Aug-22-2023	0	IN	71	88	78	F	11.2	3.8	MPH	77.5	F
101.	Aug-23-2023	0	IN	70	91	80	F	17	6	MPH	77.5	F
102.	Aug-24-2023	0	IN	76	92	84	F	19.5	6.5	MPH	79.2	F
103.	Aug-25-2023	0	IN	76	92	82	F	11	3.4	MPH	80.1	F
104.	Aug-26-2023	0	IN	68	84	75	F	13.9	3.4	MPH	78.6	F
105.	Aug-27-2023	0	IN	60	78	70	F	14.1	5.1	MPH	75.9	F
106.	Aug-28-2023	0	IN	56	80	67	F	12.3	2.9	MPH	73.4	F
107.	Aug-29-2023	0	IN	52	81	68	F	14.1	3.1	MPH	72.5	F
108.	Aug-30-2023	0	IN	56	75	65	F	17.4	4.7	MPH	72.1	F
109.	Aug-31-2023	0	IN	50	76	64	F	15.2	4.5	MPH	70.5	F
110.	Sep-1-2023	0	IN	53	84	68	F	12.3	3.1	MPH	70.7	F
111.	Sep-2-2023	0	IN	56	87	72	F	19.2	3.6	MPH	72	F
112.	Sep-3-2023	0	IN	68	88	77	F	16.8	5.8	MPH	74.5	F
113.	Sep-4-2023	0	IN	66	89	78	F	16.6	5.1	MPH	74.7	F
114.	Sep-5-2023	0	IN	70	90	78	F	20.6	6.5	MPH	75.9	F
115.	Sep-6-2023	0.29	IN	65	84	74	F	19.7	7.4	MPH	75.4	F
116.	Sep-7-2023	0	IN	65	74	68	F	13	4.5	MPH	73.2	F
117.	Sep-8-2023	0	IN	59	73	65	F	15.9	3.1	MPH	71.2	F
118.	Sep-9-2023	0	IN	60	78	67	F	13.2	4	MPH	70.5	F
119.	Sep-10-2023	0	IN	51	83	66	F	8.5	1.6	MPH	69.8	F
120.	Sep-11-2023	0.04	IN	57	82	68	F	12.1	3.4	MPH	70.2	F
121.	Sep-12-2023	0.02	IN	51	75	65	F	13.6	3.1	MPH	70.3	F
122.	Sep-13-2023	0	IN	45	75	60	F	17.2	2.9	MPH	67.3	F
123.	Sep-14-2023	0	IN	46	78	62	F	12.8	2.7	MPH	66.4	F
124.	Sep-15-2023	0	IN	48	82	64	F	11.9	2.5	MPH	66.6	F
125.	Sep-16-2023	0	IN	50	80	63	F	9.8	2.7	MPH	66.4	F
126.	Sep-17-2023	0.22	IN	54	72	61	F	12.1	2.5	MPH	66.6	F
127.	Sep-18-2023	0	IN	49	74	61	F	16.1	2.7	MPH	65.5	F
128.	Sep-19-2023	0	IN	52	79	65	F	16.6	4.7	MPH	64.9	F

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129.	Sep-20-2023	0	IN	53	83	69	F	14.8	3.8	MPH	66	F
130.	Sep-21-2023	0	IN	60.1	80.4	69.3	F	15.2	2.9	MPH	67.3	F
131.	Sep-22-2023	0	IN	59.2	85.6	71.4	F	13.2	3.4	MPH	67.8	F
132.	Sep-23-2023	0	IN	54.1	80.8	67.5	F	16.6	4	MPH	67.6	F
133.	Sep-24-2023	0	IN	50.9	85.3	66	F	19.2	3.1	MPH	67.3	F
134.	Sep-25-2023	0	IN	54.3	85.5	68.7	F	14.5	3.1	MPH	68	F
135.	Sep-26-2023	0.18	IN	60.4	76.6	66	F	20.6	4.3	MPH	68	F
136.	Sep-27-2023	0.14	IN	61.2	76.3	65.7	F	15.2	3.4	MPH	67.1	F
137.	Sep-28-2023	0	IN	58.3	74.8	66.2	F	8.9	2.2	MPH	67.6	F
138.	Sep-29-2023	0	IN	54.3	82.8	66.6	F	14.3	2.2	MPH	67.6	F
139.	Sep-30-2023	0	IN	54	86.2	68.7	F	13.9	2.5	MPH	67.3	F
140.	Oct-1-2023	0	IN	55.8	87.1	70.9	F	14.8	2.2	MPH	67.5	F
141.	Oct-2-2023	0	IN	56.7	89.8	72	F	12.1	2.2	MPH	68.2	F
142.	Oct-3-2023	0	IN	57.2	88.9	73.8	F	15	3.8	MPH	68.7	F
143.	Oct-4-2023	0	IN	64.9	86.5	73.9	F	24.6	5.8	MPH	69.3	F
144.	Oct-5-2023	0.38	IN	60.4	70.9	65.8	F	21.7	6.3	MPH	67.8	F
145.	Oct-6-2023	0	IN	44.2	68	54.3	F	28.2	6	MPH	64.2	F
146.	Oct-7-2023	0	IN	42.4	61.3	50.5	F	22.1	6.9	MPH	59.9	F
147.	Oct-8-2023	0	IN	40.1	56.5	48.6	F	15.2	3.8	MPH	57.2	F

Application Description

	A	B
Date	May-18-2023	Jun-17-2023
Start Time	2:05 PM	11:04 AM
Stop Time	2:31 PM	11:26 AM
Method	SPRAY	SPRAY
Timing	PRE	6-8" WEEDS
Placement	BROSOI	BROFOL
Applied By	C. BLAND	M. ZIMMER
Entry Date	Jun-16-2023	Jun-19-2023
Air Temperature Start, Stop	76.7, 76.7 F	70.8, 70.8 F
% Relative Humidity Start, Stop	30.8, 30.8	65, 65
Wind Velocity+Dir. Start	0.9 MPH, SE	1.6 MPH, SE
Wind Velocity+Dir. Stop	1 MPH, SE	1.6 MPH, SE
Wind Velocity+Dir. Max	6.3 MPH, SE	2.9 MPH, SE
Wet Leaves (Y/N)	N, no	N, no
Soil Temperature	70 F	80 F
Soil Temperature Depth	4 IN	
Soil Moisture	ADEQUATE	ADEQUATE
% Ground Cover	0	0
% Cloud Cover	0	10
First Moisture Occurred On	May-19-2023	Jun-25-2023
Time to First Moisture	1.0 DAY	8.0 DAY
Amount of First Moisture	0.59 IN	0.93 IN
Moisture 1 Week Before Appl.	0.7 IN	0.43 IN
Moisture 6 Hours after Appl.	0 IN	0 IN
Moisture 24 Hours after Appl.	0.59 IN	0 IN
Moisture 1 Week after Appl.	0.59 IN	0 IN
Problems with Application?	N, no	N, no

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Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-11	19
Stage Majority, Percent	0, -	V3, -
Stage Minimum, Percent	0, -	V2, -
Stage Maximum, Percent	0, -	V4, -
Height Average	0 IN	4 IN
Height Minimum, Maximum	0, 0	3, 6

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average	0 IN	6 IN
Height Minimum, Maximum	0, 0	2, 7
Density Average	0 FT2	9 FT2
Density Minimum, Maximum	0, 0	5, 12
Pest 2 Code, Type, Scale	CHEAL, W, BBCH	CHEAL, W, BBCH
Height Average	0 IN	2.5 IN
Height Minimum, Maximum	0, 0	0.5, 3
Density Average	0 FT2	4 FT2
Density Minimum, Maximum	0, 0	0, 8
Pest 3 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH
Height Average	0 IN	4 IN
Height Minimum, Maximum	0, 0	2, 4
Density Average	0 FT2	2 FT2
Density Minimum, Maximum	0, 0	0, 4
Pest 4 Code, Type, Scale	ECHCG, W, BBCH	ECHCG, W, BBCH
Height Average	0 IN	3 IN
Height Minimum, Maximum	0, 0	2, 3.5
Density Average	0 FT2	2 FT2
Density Minimum, Maximum	0, 0	0, 4

Application Equipment

	A	B
Equipment Name	CO2 BACKPACK	CO2 BACKPACK
Equipment Type	BACSPR	BACSPR
Operation Pressure	27 PSI	27 PSI
Nozzle Model	AIXR	AIXR
Nozzle Type	FLAFAI	FLAFAI
Nozzle TradeName	TEEJET	TEEJET
Nozzle Tip Size, Color	110015, GREEN	110015, GREEN
Nozzle Spacing	15.0 IN	15.0 IN
Boom Length	10.0 FT	10.0 FT
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC
Mix Overage	236.0 mL	236.0 mL
Mix Size	1800.0 mL	1800.0 mL
Propellant	COMCO2	COMCO2

Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Notes

Context	Date	By	Notes
STATUS	Mar-25-2023	Dr. Bill Johnson	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-16-2023	Dr. Bryan Young	Automatically added by ARM: Status changed to: E: changed by (EINYOB).

Instructions:
1. Application timing for POST B should be based on weed size in Boundary treatments.
2. Evaluations: ci 14, and at POST; wc/photos at POST and 14 and 28 DA-POST. Use Canopeo app for canopy coverage on all plots at V4/V5.
3. Soybean stand counts if differences apparent.
4. Yield

Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	1*	2*	3*	7*	11*
	Assessed By				Claudia Bland	Marcelo Zimmer	Marcelo Zimmer	Claudia Bland	Claudia Bland
	Rating Date				Jun-1-2023	Jun-17-2023	Jun-17-2023	Jun-30-2023	Jul-14-2023
	Rating Type				PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO
	Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
	Crop Scientific Name				Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
	Crop Name				Soybean	Soybean	Soybean	Soybean	Soybean
	Crop Variety				Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62
	Pest Code						AMBTR	AMBTR	AMBTR
	Pest Scientific Name						Ambrosia trifida	Ambrosia trifida	Ambrosia trifida
	Pest Name						Giant ragweed	Giant ragweed	Giant ragweed
	Rating Timing				14 DA-A	AT POST	AT POST	14 DA-B	28 DA-B
	ARM Action Codes				EC	EC	EC	EC	EC
1	NONTREATED				0.0	0.0	0.0	0.0	0.0
2	TENDOVO	1.75	qt/a	A	0.0 a	0.0 a	75.0 a	98.5 a	90.0 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
3	TENDOVO	2.1	qt/a	A	0.0 a	0.0 a	77.0 a	98.0 a	94.5 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
4	BOUNDARY	2	pt/a	A	0.0 a	0.0 a	58.8 a	96.3 ab	87.5 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
5	PREFIX	2.5	pt/a	A	0.0 a	0.0 a	75.0 a	98.3 a	96.8 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
6	KYBER	1	pt/a	A	0.0 a	0.0 a	79.5 a	97.8 ab	96.5 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
7	ZIDUA PRO	6	fl oz/a	A	0.0 a	0.0 a	83.8 a	98.3 a	92.5 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
8	FIERCE EZ	6	fl oz/a	A	0.0 a	0.0 a	70.0 a	97.0 ab	93.3 a
	PERPETUO	6	fl oz/a	B					
	LIBERTY	32	fl oz/a	B					
	SELECT MAX	9	fl oz/a	B					
	ACTIVATOR 90	0.25	% v/v	B					
	AMSOL	2.5	% v/v	B					
9	FIERCE MTZ	16	fl oz/a	A	0.0 a	0.0 a	55.0 a	91.3 c	86.3 a
	PERPETUO	6	fl oz/a	B					
	LIBERTY	32	fl oz/a	B					
	SELECT MAX	9	fl oz/a	B					
	ACTIVATOR 90	0.25	% v/v	B					
	AMSOL	2.5	% 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.
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Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Assessed By				Claudia Bland	Marcelo Zimmer	Marcelo Zimmer	Claudia Bland	Claudia Bland
Rating Date				Jun-1-2023	Jun-17-2023	Jun-17-2023	Jun-30-2023	Jul-14-2023
Rating Type				PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Scientific Name				Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name				Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety				Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62
Pest Code						AMBTR	AMBTR	AMBTR
Pest Scientific Name						Ambrosia trifida	Ambrosia trifida	Ambrosia trifida
Pest Name						Giant ragweed	Giant ragweed	Giant ragweed
Rating Timing				14 DA-A	AT POST	AT POST	14 DA-B	28 DA-B
ARM Action Codes				EC	EC	EC	EC	EC
Trt No.	Treatment Name	Rate	Rate Unit / Appl Code	1*	2*	3*	7*	11*
10	FIERCE XLT	4	oz/a A	0.0 a	0.0 a	61.3 a	94.5 bc	90.8 a
	PERPETUO	6	fl oz/a B					
	LIBERTY	32	fl oz/a B					
	SELECT MAX	9	fl oz/a B					
	ACTIVATOR 90	0.25	% v/v B					
	AMSOL	2.5	% v/v B					
LSD P=.05				.	.	22.65	3.46	7.75
Standard Deviation				0.00	0.00	15.52	2.37	5.31
CV				0.0	0.0	21.98	2.45	5.77
Levene's Prob(F)				.	.	0.81	0.069	0.008*
P(Shapiro-Wilk)^				.	.	0.0458*	0.8706	0.9216
P(Skewness)^				.	.	0.0169*	0.79	0.865
P(Kurtosis)^				.	.	0.0798	0.6637	0.3449
Replicate F				0.000	0.000	0.925	7.919	0.602
Replicate Prob(F)				1.0000	1.0000	0.4439	0.0008	0.6199
Treatment F				0.000	0.000	1.668	4.070	1.948
Treatment Prob(F)				1.0000	1.0000	0.1581	0.0035	0.0988

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Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Assessed By				Marcelo Zimmer	Claudia Bland	Claudia Bland	Marcelo Zimmer	Claudia Bland
Rating Date				Jun-17-2023	Jun-30-2023	Jul-14-2023	Jun-17-2023	Jun-30-2023
Rating Type				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Scientific Name				Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
Crop Name				Soybean	Soybean	Soybean	Soybean	Soybean
Crop Variety				Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62
Pest Code				SETFA	SETFA	SETFA	CHEAL	CHEAL
Pest Scientific Name				Setaria faberi	Setaria faberi	Setaria faberi	Chenopodium alb>	Chenopodium alb>
Pest Name				Giant foxtail	Giant foxtail	Giant foxtail	common lambsqua>	common lambsqua>
Rating Timing				AT POST	14 DA-B	28 DA-B	AT POST	14 DA-B
ARM Action Codes				EC	EC	EC	EC	EC
Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	4*	8*	12*	5*	9*
1	NONTREATED				0.0	0.0	0.0	0.0	0.0
2	TENDOVO	1.75	qt/a	A	83.8 ab	98.3 ab	96.5 a	100.0 a	100.0 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
3	TENDOVO	2.1	qt/a	A	88.5 a	98.3 ab	97.8 a	100.0 a	100.0 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
4	BOUNDARY	2	pt/a	A	83.8 ab	99.0 a	98.8 a	100.0 a	100.0 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
5	PREFIX	2.5	pt/a	A	72.5 b	95.0 bc	97.0 a	97.5 a	100.0 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
6	KYBER	1	pt/a	A	74.5 ab	97.0 abc	95.8 a	100.0 a	100.0 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
7	ZIDUA PRO	6	fl oz/a	A	89.5 a	98.8 ab	98.8 a	100.0 a	100.0 a
	ENLIST ONE	2	pt/a	B					
	ROUNDUP POWERMAX 3	28	fl oz/a	B					
	AMSOL	2.5	% v/v	B					
8	FIERCE EZ	6	fl oz/a	A	71.3 b	96.8 abc	96.5 a	98.8 a	96.3 b
	PERPETUO	6	fl oz/a	B					
	LIBERTY	32	fl oz/a	B					
	SELECT MAX	9	fl oz/a	B					
	ACTIVATOR 90	0.25	% v/v	B					
	AMSOL	2.5	% v/v	B					
9	FIERCE MTZ	16	fl oz/a	A	50.0 c	93.3 c	92.5 a	100.0 a	100.0 a
	PERPETUO	6	fl oz/a	B					
	LIBERTY	32	fl oz/a	B					
	SELECT MAX	9	fl oz/a	B					
	ACTIVATOR 90	0.25	% v/v	B					
	AMSOL	2.5	% v/v	B					

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Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	4*	8*	12*	5*	9*
	Assessed By				Marcelo Zimmer	Claudia Bland	Claudia Bland	Marcelo Zimmer	Claudia Bland
	Rating Date				Jun-17-2023	Jun-30-2023	Jul-14-2023	Jun-17-2023	Jun-30-2023
	Rating Type				CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
	Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
	Crop Scientific Name				Glycine max	Glycine max	Glycine max	Glycine max	Glycine max
	Crop Name				Soybean	Soybean	Soybean	Soybean	Soybean
	Crop Variety				Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62
	Pest Code				SETFA	SETFA	SETFA	CHEAL	CHEAL
	Pest Scientific Name				Setaria faberi	Setaria faberi	Setaria faberi	Chenopodium alb>	Chenopodium alb>
	Pest Name				Giant foxtail	Giant foxtail	Giant foxtail	common lambsqua>	common lambsqua>
	Rating Timing				AT POST	14 DA-B	28 DA-B	AT POST	14 DA-B
	ARM Action Codes				EC	EC	EC	EC	EC
10	FIERCE XLT	4	oz/a	A	47.5 c	94.0 c	92.8 a	100.0 a	100.0 a
	PERPETUO	6	fl oz/a	B					
	LIBERTY	32	fl oz/a	B					
	SELECT MAX	9	fl oz/a	B					
	ACTIVATOR 90	0.25	% v/v	B					
	AMSOL	2.5	% v/v	B					
	LSD P=.05				15.03	3.75	5.27	2.76	2.33
	Standard Deviation				10.30	2.57	3.61	1.89	1.60
	CV				14.02	2.66	3.75	1.9	1.6
	Levene's Prob(F)				0.914	0.993	0.94	0.681	0.00*
	P(Shapiro-Wilk)^				0.1822	0.3956	0.0979	0.0*	0.0*
	P(Skewness)^				0.0964	0.7244	0.126	0.0*	0.0036*
	P(Kurtosis)^				0.6079	0.3144	0.9679	0.0*	0.0*
	Replicate F				3.377	2.467	1.728	0.710	1.000
	Replicate Prob(F)				0.0348	0.0865	0.1879	0.5557	0.4098
	Treatment F				9.084	2.756	1.610	0.871	2.455
	Treatment Prob(F)				0.0001	0.0259	0.1744	0.5538	0.0424

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Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13*	6*	10*	14*
	Assessed By				Claudia Bland	Marcelo Zimmer	Claudia Bland	Claudia Bland
	Rating Date				Jul-14-2023	Jun-17-2023	Jun-30-2023	Jul-14-2023
	Rating Type				CONTRO	CONTRO	CONTRO	CONTRO
	Rating Unit/Min/Max				%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
	Crop Scientific Name				Glycine max	Glycine max	Glycine max	Glycine max
	Crop Name				Soybean	Soybean	Soybean	Soybean
	Crop Variety				Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62
	Pest Code				CHEAL	ECHCG	ECHCG	ECHCG
	Pest Scientific Name				Chenopodium alb>	Echinochloa cru>	Echinochloa cru>	Echinochloa cru>
	Pest Name				common lambsqua>	common barnyard>	common barnyard>	common barnyard>
	Rating Timing				28 DA-B	AT POST	14 DA-B	28 DA-B
	ARM Action Codes				EC	EC	EC	EC
1	NONTREATED				0.0	0.0	0.0	0.0
2	TENDOVO	1.75	qt/a	A	100.0 a	84.5 ab	97.5 ab	95.8 a
	ENLIST ONE	2	pt/a	B				
	ROUNDUP POWERMAX 3	28	fl oz/a	B				
	AMSOL	2.5	% v/v	B				
3	TENDOVO	2.1	qt/a	A	100.0 a	83.8 ab	98.8 ab	96.3 a
	ENLIST ONE	2	pt/a	B				
	ROUNDUP POWERMAX 3	28	fl oz/a	B				
	AMSOL	2.5	% v/v	B				
4	BOUNDARY	2	pt/a	A	100.0 a	84.5 ab	99.5 a	97.5 a
	ENLIST ONE	2	pt/a	B				
	ROUNDUP POWERMAX 3	28	fl oz/a	B				
	AMSOL	2.5	% v/v	B				
5	PREFIX	2.5	pt/a	A	98.8 a	72.5 b	95.8 bc	97.3 a
	ENLIST ONE	2	pt/a	B				
	ROUNDUP POWERMAX 3	28	fl oz/a	B				
	AMSOL	2.5	% v/v	B				
6	KYBER	1	pt/a	A	100.0 a	72.5 b	94.0 c	97.5 a
	ENLIST ONE	2	pt/a	B				
	ROUNDUP POWERMAX 3	28	fl oz/a	B				
	AMSOL	2.5	% v/v	B				
7	ZIDUA PRO	6	fl oz/a	A	100.0 a	88.8 a	98.5 ab	97.5 a
	ENLIST ONE	2	pt/a	B				
	ROUNDUP POWERMAX 3	28	fl oz/a	B				
	AMSOL	2.5	% v/v	B				
8	FIERCE EZ	6	fl oz/a	A	94.5 b	71.3 b	98.0 ab	93.3 a
	PERPETUO	6	fl oz/a	B				
	LIBERTY	32	fl oz/a	B				
	SELECT MAX	9	fl oz/a	B				
	ACTIVATOR 90	0.25	% v/v	B				
	AMSOL	2.5	% v/v	B				
9	FIERCE MTZ	16	fl oz/a	A	100.0 a	50.0 c	93.3 c	92.5 a
	PERPETUO	6	fl oz/a	B				
	LIBERTY	32	fl oz/a	B				
	SELECT MAX	9	fl oz/a	B				
	ACTIVATOR 90	0.25	% v/v	B				
	AMSOL	2.5	% v/v	B				

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Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Assessed By			Claudia Bland	Marcelo Zimmer	Claudia Bland	Claudia Bland
Rating Date			Jul-14-2023	Jun-17-2023	Jun-30-2023	Jul-14-2023
Rating Type			CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max			%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Crop Scientific Name			Glycine max	Glycine max	Glycine max	Glycine max
Crop Name			Soybean	Soybean	Soybean	Soybean
Crop Variety			Stine 29 EB62	Stine 29 EB62	Stine 29 EB62	Stine 29 EB62
Pest Code			CHEAL	ECHCG	ECHCG	ECHCG
Pest Scientific Name			Chenopodium alb>	Echinochloa cru>	Echinochloa cru>	Echinochloa cru>
Pest Name			common lambsqua>	common barnyard>	common barnyard>	common barnyard>
Rating Timing			28 DA-B	AT POST	14 DA-B	28 DA-B
ARM Action Codes			EC	EC	EC	EC
Trt No.	Treatment Name	Rate Unit	Appl Code	13*	6*	10*	14*
10	FIERCE XLT	4 oz/a	A	100.0 a	47.5 c	94.0 c	91.3 a
	PERPETUO	6 fl oz/a	B				
	LIBERTY	32 fl oz/a	B				
	SELECT MAX	9 fl oz/a	B				
	ACTIVATOR 90	0.25 % v/v	B				
	AMSOL	2.5 % v/v	B				
LSD P=.05				2.57	14.41	3.31	5.16
Standard Deviation				1.76	9.88	2.27	3.54
CV				1.77	13.57	2.35	3.71
Levene's Prob(F)				0.325	0.806	0.773	0.277
P(Shapiro-Wilk)^				0.0*	0.4725	0.9664	0.1822
P(Skewness)^				0.1978	0.1978	0.6308	0.1525
P(Kurtosis)^				0.0*	0.4837	0.952	0.838
Replicate F				1.874	3.163	1.954	1.263
Replicate Prob(F)				0.1609	0.0429	0.1479	0.3094
Treatment F				4.318	9.280	4.372	1.908
Treatment Prob(F)				0.0025	0.0001	0.0023	0.1057

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Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	15*	16*
	Assessed By				Claudia Bland	Lucas Maia
	Rating Date				Jul-1-2023	Oct-8-2023
	Rating Type				CANOPY	YIELD
	Rating Unit/Min/Max				%, 0, 100	bu/ac, -, -
	Crop Scientific Name				Glycine max	Glycine max
	Crop Name				Soybean	Soybean
	Crop Variety				Stine 29 EB62	Stine 29 EB62
	Pest Code					
	Pest Scientific Name					
	Pest Name					
	Rating Timing				V4/V5 SOY	AT HARVEST
	ARM Action Codes					
1	NONTREATED				95.5 a	30.03 c
2	TENDOVO	1.75	qt/a	A	34.8 b	78.30 a
	ENLIST ONE	2	pt/a	B		
	ROUNDUP POWERMAX 3	28	fl oz/a	B		
	AMSOL	2.5	% v/v	B		
3	TENDOVO	2.1	qt/a	A	35.8 b	76.77 a
	ENLIST ONE	2	pt/a	B		
	ROUNDUP POWERMAX 3	28	fl oz/a	B		
	AMSOL	2.5	% v/v	B		
4	BOUNDARY	2	pt/a	A	36.8 b	78.47 a
	ENLIST ONE	2	pt/a	B		
	ROUNDUP POWERMAX 3	28	fl oz/a	B		
	AMSOL	2.5	% v/v	B		
5	PREFIX	2.5	pt/a	A	39.8 b	84.60 a
	ENLIST ONE	2	pt/a	B		
	ROUNDUP POWERMAX 3	28	fl oz/a	B		
	AMSOL	2.5	% v/v	B		
6	KYBER	1	pt/a	A	34.8 b	76.25 a
	ENLIST ONE	2	pt/a	B		
	ROUNDUP POWERMAX 3	28	fl oz/a	B		
	AMSOL	2.5	% v/v	B		
7	ZIDUA PRO	6	fl oz/a	A	34.3 b	83.60 a
	ENLIST ONE	2	pt/a	B		
	ROUNDUP POWERMAX 3	28	fl oz/a	B		
	AMSOL	2.5	% v/v	B		
8	FIERCE EZ	6	fl oz/a	A	32.5 b	62.20 b
	PERPETUO	6	fl oz/a	B		
	LIBERTY	32	fl oz/a	B		
	SELECT MAX	9	fl oz/a	B		
	ACTIVATOR 90	0.25	% v/v	B		
	AMSOL	2.5	% v/v	B		
9	FIERCE MTZ	16	fl oz/a	A	34.3 b	76.53 a
	PERPETUO	6	fl oz/a	B		
	LIBERTY	32	fl oz/a	B		
	SELECT MAX	9	fl oz/a	B		
	ACTIVATOR 90	0.25	% v/v	B		
	AMSOL	2.5	% 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.
Due to missing data, larger LSD values (col. 15: >=8.21 and <=8.94) are used for mean comparisons of treatment pairs with missing data.
* Adjusted means
Could not calculate LSD (% mean diff) for columns 1,2 because error mean square = 0.
^Calculated from residual.

Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	15*	16*
	Assessed By				Claudia Bland	Lucas Maia
	Rating Date				Jul-1-2023	Oct-8-2023
	Rating Type				CANOPY	YIELD
	Rating Unit/Min/Max				%, 0, 100	bu/ac, -, -
	Crop Scientific Name				Glycine max	Glycine max
	Crop Name				Soybean	Soybean
	Crop Variety				Stine 29 EB62	Stine 29 EB62
	Pest Code					
	Pest Scientific Name					
	Pest Name					
	Rating Timing				V4/V5 SOY	AT HARVEST
	ARM Action Codes					
10	FIERCE XLT	4	oz/a	A	35.0 b	75.35 a
	PERPETUO	6	fl oz/a	B		
	LIBERTY	32	fl oz/a	B		
	SELECT MAX	9	fl oz/a	B		
	ACTIVATOR 90	0.25	% v/v	B		
	AMSOL	2.5	% v/v	B		
	LSD P=.05				8.21	9.446
	Standard Deviation				5.65	6.441
	CV				13.63	8.85
	Levene's Prob(F)				0.736	0.342
	P(Shapiro-Wilk)^				0.5213	0.2304
	P(Skewness)^				0.5616	0.3058
	P(Kurtosis)^				0.9876	0.4776
	Replicate F				3.748	0.861
	Replicate Prob(F)				0.0232	0.4759
	Treatment F				45.817	19.107
	Treatment Prob(F)				0.0001	0.0001

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.
Due to missing data, larger LSD values (col. 15: >=8.21 and <=8.94) are used for mean comparisons of treatment pairs with missing data.
* Adjusted means
Could not calculate LSD (% mean diff) for columns 1,2 because error mean square = 0.
^Calculated from residual.

Purdue Weed Science

Herbicide Programs in Enlist Soybean

Trial ID: 23-TPAC-Soy-06
Protocol ID: 23-TPAC-Soy-06 Location: Trial Year: 2023
Study Director: Dr. Bill Johnson Sponsor Contact: Steve Mroczkiewicz/Chad Threewits

Investigator: Dr. Bill Johnson

Assessed By
Marcelo Zimmer = MZ
Rating Type
PHYGEN = phytotoxicity - general / injury
CONTRO = control / burndown or knockdown
CANOPY = canopy
YIELD = yield
Rating Unit/Min/Max
%, 0, 100 = percent
bu/ac, , = bushels per acre
Pest Code
AMBTR, Ambrosia trifida, Giant ragweed = US
SETFA, Setaria faberi, Giant foxtail = US
CHEAL, Chenopodium album, common lambsquarters = US
ECHCG, Echinochloa crus-galli, common barnyardgrass = US
Rating Timing
14 DA-A = 14 Days After Application A
ARM Action Codes
EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table