

# Purdue Weed Science

## POST and Sequential weed control with Maverick (V-10494) Primary/Core PRE soil residual

Trial ID: 21S-TPAC-CORN-06 Location: TPAC Trial Year: 2021  
 Protocol ID: 21S-TPAC-CORN-06 Investigator (Creator): Dr. Bill Johnson  
 Project ID: Study Director:  
 Sponsor Contact:

**Discipline:** H herbicide  
**Trial Status:** E established **Trial Reliability:** 1 usable data  
**ARM Trial Created On:** 10/8/2021  
**Initiation Date:** 5/15/2021

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

**Latitude of LL Corner °:** 40.291765 N  
**Longitude of LL Corner °:** -86.909494 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 evaluate the premix concept of clopyralid plus mesotrione plus pyroxasulfone for use in field corn for pre and post weed control when applied postemergence. Treatments will be applied alone and with atrazine (840 g ai/ha) Measure of success is understanding of competitive position vs. Halex GT, Armezon, Acuron and Resicor POST and Acuron as a split application.

**Crop Description**  
**Crop 1:** C ZEAMX Zea mays **Corn** **Stage Scale:** BBCH **BBCH Scale:** BCOR  
**Entry Date:** 10/8/2021  
**Variety:** DKC62-52 RIB  
**Attributes:** glyphosate and glufosinate resistant corn  
**Planting Date:** 5/15/2021 **Planting Rate:** 32000 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:** 69 F **Soil Moisture:** NORMAL normal, adequate  
**Emergence Date:** 5/23/2021  
**Harvested Width:** 10 FT  
**Harvested Length:** 27 FT  
**% Standard Moisture:** 15.5

**Pest Description**  
**Pest 1 Type:** W **Code:** AMBTR Ambrosia trifida **Stage Scale:** BBCH  
**Common Name:** Giant ragweed  
**Pest 2 Type:** W **Code:** ECHCG Echinochloa crus-galli **Entry Date:** 10/8/2021  
**Common Name:** common barnyardgrass **Stage Scale:** BBCH  
**Pest 3 Type:** W **Code:** CHEAL Chenopodium album **Entry Date:** 10/8/2021  
**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:** 10 **Tillage Type:** CONTIL conventional-till  
**Replications:** 4 **Study Design:** RACOB� Randomized Complete Block (RCB)

**Maintenance**

No.	Date	Type	Maintenance Product Name	Description	Rate	Rate Unit
1.	5/9/2021	FERT	28% N	28% N	60	LB/A

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

**Weather Conditions****Overall Moisture Conditions: FAIR** fair**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
93.	8/1/2021	0	IN	57	73	F
94.	8/2/2021	0	IN	52	80	F
95.	8/3/2021	0	IN	54	77	F
96.	8/4/2021	0	IN	55	80	F
97.	8/5/2021	0	IN	54	81	F
98.	8/6/2021	0	IN	61	83	F
99.	8/7/2021	0	IN	67	82	F
100.	8/8/2021	0	IN	67	85	F
101.	8/9/2021	0	IN	69	86	F
102.	8/10/2021	0	IN	71	80	F
103.	8/11/2021	0	IN	74	90	F
104.	8/12/2021	0.1	IN	75	88	F
105.	8/13/2021	0.24	IN	67	78	F
106.	8/14/2021	0	IN	60	86	F
107.	8/15/2021	0	IN	53	81	F

Application Description			
	A	B	C
Application Date	5/15/2021	6/1/2021	6/11/2021
Appl. Start Time	11:27 AM	12:14 PM	3:51 PM
Appl. Stop Time	11:33 AM	12:38 PM	3:59 PM
Interval to Prev. Appl.		17 DAYS	10 DAYS
Application Method	SPRAY	SPRAY	SPRAY
Application Timing	PREPRE	EAPOCR	POSPOS
Application Placement	BROADC	BROADC	BROADC
Appl. Entry Date	10/8/2021	10/8/2021	10/8/2021
Air Temperature Start, Stop	71, 71 F	70, 70 F	92, 92 F
% Relative Humidity Start, Stop	39, 39	57, 57	48, 48
Wind Velocity+Dir. Start	8 MPH, S	3.8 MPH, N	5 MPH, N
Wind Velocity+Dir. Stop	8 MPH, S	3.8 MPH, N	5 MPH, N
Wind Velocity+Dir. Max	8 MPH, S	3.8 MPH, N	5 MPH, N
Wet Leaves (Y/N)	N, no	N, no	N, no
Soil Temperature	68 F	65 F	105 F
Soil Moisture	NORMAL	NORMAL	DRY
% Cloud Cover	50	100	50

Crop Stage At Each Application			
	A	B	C
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-8	9	19
Stage Majority, Percent	00, -	12, -	14, -
Stage Minimum, Percent	00, -	12, -	13, -
Stage Maximum, Percent	00, -	12, -	15, -
Height Average	0 IN	4 IN	12 IN
Height Minimum, Maximum		3, 5	11, 14

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, -	14, -	19, -
Stage Minimum, Percent	00, -	12, -	16, -
Stage Maximum, Percent	00, -	14, -	19, -
Height Average	0 IN	2 IN	8 IN
Height Minimum, Maximum		0.5, 4	6, 8
Density Average		3 FT2	6 FT2
Density Minimum, Maximum		2, 5	5, 10
Pest 2 Code, Type, Scale	ECHCG, W, BBCH	ECHCG, W, BBCH	ECHCG, W, BBCH
Stage Majority, Percent	00, -	13, -	16, -
Stage Minimum, Percent	00, -	11, -	14, -
Stage Maximum, Percent	00, -	14, -	18, -
Height Average	0 IN	1 IN	6 IN
Height Minimum, Maximum		0.25, 2	5, 10
Density Average		10 FT2	5 FT2
Density Minimum, Maximum		5, 15	5, 10
Pest 3 Code, Type, Scale	CHEAL, W, BBCH	CHEAL, W, BBCH	CHEAL, W, BBCH
Stage Majority, Percent	00, -	14, -	16, -
Stage Minimum, Percent	00, -	11, -	14, -
Stage Maximum, Percent	00, -	16, -	19, -
Height Average	0 IN	0.5 IN	4 IN
Height Minimum, Maximum		0.25, 1	2, 6
Density Average		2 FT2	2 FT2
Density Minimum, Maximum		0, 5	0, 5

<b>Application Equipment</b>			
	<b>A</b>	<b>B</b>	<b>C</b>
<b>Appl. Equipment</b>	CO2 BACKPACK	CO2 BACKPACK	CO2 BACKPACK
<b>Equipment Type</b>	BACSPR	BACCAI	BACCAI
<b>Operation Pressure</b>	19 PSI	30 PSI	30 PSI
<b>Nozzle Model</b>	XR	AIXR	AIXR
<b>Nozzle Type</b>	FLAFXR	FLAFAI	FLAFAI
<b>Nozzle Spacing</b>	15.0 IN	15.0 IN	15.0 IN
<b>Nozzles/Row</b>	8.0	8.0	8.0
<b>Boom Length</b>	10.0 FT	10.0 FT	10.0 FT
<b>Boom Height</b>	17.0 IN	20.0 IN	27.0 IN
<b>Ground Speed</b>	3 MPH	3 MPH	3 MPH
<b>Carrier</b>	WATER	WATER	WATER
<b>Application Amount</b>	15 GAL/AC	15 GAL/AC	15 GAL/AC
<b>Mix Size</b>	1.8 L	1.8 L	1.8 L
<b>Propellant</b>	COMCO2	COMCO2	COMCO2
<b>Tank Mix (Y/N)</b>	Y, yes	Y, yes	Y, yes

# Purdue Weed Science

## POST and Sequential weed control with Maverick (V-10494) Primary/Core PRE soil residual

Trial ID: 21S-TPAC-CORN-06	Location: TPAC	Trial Year: 2021	
Protocol ID: 21S-TPAC-CORN-06	Investigator (Creator): Dr. Bill Johnson		
Project ID:	Study Director:		
	Sponsor Contact:		

Pest Type						W, Weed	W, Weed	
Pest Code						AMBTR	CHEAL	
Pest Scientific Name						Ambrosia trifida	Chenopodium alb>	
Pest Name						Giant ragweed	common lambsqua>	
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX				
BBCH Scale	BCOR	BCOR	BCOR	BCOR				
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays				
Crop Name	Corn	Corn	Corn	Corn				
Rating Date	5/29/2021	6/11/2021	6/25/2021	7/9/2021	6/11/2021	6/11/2021	6/11/2021	
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, P	PLANT, P	PLANT, P	
Rating Type	PHYGEN	PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	
Sample Size								
Number of Subsamples	1	1	1	1	1	1	1	
Data Entry Date	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021	
Rating Timing	14 DAA	10 DAB	14 DAC	28 DAC	27 DAA	27 DAA	27 DAA	
Days After First/Last Applic.	14, 14	27, 10	41, 14	55, 28	27, 10	27, 10	27, 10	
Plant-Eval Interval	14 DP-1	27 DP-1	41 DP-1	55 DP-1	27 DP-1	27 DP-1	27 DP-1	
Days After Emergence	6 DE-1	19 DE-1	33 DE-1	47 DE-1	19 DE-1	19 DE-1	19 DE-1	
ARM Action Codes								
Number of Decimals								
Trt Treatment	Rate	Appl	1	2	3	4	5	6
No. Name	Rate Unit	Code						
1 UNTREATED CHECK			0.0	0.0	0.0	0.0	0.0	0.0
2 ACURON HERBICIDE	3 PT/A	B		0.0 -	0.0 -	0.0 -		
ROUNDUP POWER MAX(AE)	1 QT/A	B						
AMSOL	3 LB AI/A	B						
3 HALEX GT	2 QT/A	B		0.0 -	0.0 -	0.0 -		
AMSOL	3 LB AI/A	B						
4 ARMEZON PRO	24 FL OZ/A	B		0.0 -	0.0 -	0.0 -		
ROUNDUP POWER MAX(AE)	1 QT/A	B						
AMSOL	3 LB AI/A	B						
5 RESICORE	44 FL OZ/A	B		0.8 -	0.0 -	0.0 -		
ROUNDUP POWER MAX(AE)	1 QT/A	B						
AMSOL	3 LB AI/A	B						
6 V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	B		0.0 -	0.0 -	0.0 -		
ROUNDUP POWER MAX(AE)	1 QT/A	B						
AMSOL	3 LB AI/A	B						
7 V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	B		0.0 -	0.0 -	0.0 -		
AATREX	0.75 LB AI/A	B						
ROUNDUP POWER MAX(AE)	1 QT/A	B						
AMSOL	3 LB AI/A	B						
8 ACURON HERBICIDE	1.5 QT/A	A	0.0 -	0.0 -	0.0 -	0.0 -	83.8 -	100.0 -
ACURON HERBICIDE	1.5 QT/A	C						
ROUNDUP POWER MAX(AE)	1 QT/A	C						
AMSOL	3 LB AI/A	C						
9 V-10494 2.04 LBAI/GAL SC 2146	18 FL OZ/A	A	0.0 -	0.0 -	0.0 -	0.0 -	93.8 -	100.0 -
V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	C						
ROUNDUP POWER MAX(AE)	1 QT/A	C						
AMSOL	3 LB AI/A	C						

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=20,21,22  
 Could not calculate LSD (% mean diff) for columns 1,3,4,6,9,10,12,13,15,16,18,19 because error mean square = 0.  
 ^Calculated from residual.

Pest Type					W, Weed	W, Weed
Pest Code					AMBTR	CHEAL
Pest Scientific Name					Ambrosia trifida	Chenopodium alb>
Pest Name					Giant ragweed	common lambsqua>
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn		
Rating Date	5/29/2021	6/11/2021	6/25/2021	7/9/2021	6/11/2021	6/11/2021
Part Rated	PLANT, C	PLANT, C	PLANT, C	PLANT, C	PLANT, P	PLANT, P
Rating Type	PHYGEN	PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size						
Number of Subsamples	1	1	1	1	1	1
Data Entry Date	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021	10/8/2021
Rating Timing	14 DAA	10 DAB	14 DAC	28 DAC	27 DAA	27 DAA
Days After First/Last Applic.	14, 14	27, 10	41, 14	55, 28	27, 10	27, 10
Plant-Eval Interval	14 DP-1	27 DP-1	41 DP-1	55 DP-1	27 DP-1	27 DP-1
Days After Emergence	6 DE-1	19 DE-1	33 DE-1	47 DE-1	19 DE-1	19 DE-1
ARM Action Codes						
Number of Decimals						
Trt Treatment						
No. Name						
Rate						
Rate Unit						
Appl Code						
	1	2	3	4	5	6
10 V-10494 2.04 LBAI/GAL SC 2146	0.0 -	0.0 -	0.0 -	0.0 -	91.8 -	100.0 -
AATREX						
V-10494 2.04 LBAI/GAL SC 2146						
AATREX						
ROUNDUP POWER MAX(AE)						
AMSOL						
LSD P=.05	.	0.73	.	.	8.12	.
Standard Deviation	0.00	0.50	0.00	0.00	4.69	0.00
CV	0.0	600.0	0.0	0.0	5.23	0.0
Grand Mean	0.00	0.08	0.00	0.00	89.75	100.00
Levene's F^	.	0.681	.	.	0.507	.
Levene's Prob(F)	.	0.704	.	.	0.619	.
Rank X2	.	.	.	.	.	.
P(Rank X2)	.	.	.	.	.	.
Skewness^	.	2.9835*	.	.	-1.3061*	.
Kurtosis^	.	15.913*	.	.	2.3854	.
Replicate F	0.000	1.000	0.000	0.000	0.640	0.000
Replicate Prob(F)	1.0000	0.4098	1.0000	1.0000	0.6165	1.0000
Treatment F	0.000	1.000	0.000	0.000	5.091	0.000
Treatment Prob(F)	1.0000	0.4613	1.0000	1.0000	0.0510	1.0000

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=20,21,22  
Could not calculate LSD (% mean diff) for columns 1,3,4,6,9,10,12,13,15,16,18,19 because error mean square = 0.  
^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	ECHCG	AMBTR	CHEAL	ECHCG		
Pest Scientific Name	Echinochloa cru>	Ambrosia trifida	Chenopodium alb>	Echinochloa cru>		
Pest Name	common barnyard>	Giant ragweed	common lambsqua>	common barnyard>		
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	6/11/2021	6/29/2021	6/29/2021	6/29/2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size						
Number of Subsamples	1	1	1	1		
Data Entry Date	10/8/2021	10/8/2021	10/8/2021	10/8/2021		
Rating Timing	27 DAA	28 DAB	28 DAB	28 DAB		
Days After First/Last Applic.	27, 10	45, 18	45, 18	45, 18		
Plant-Eval Interval	27 DP-1	45 DP-1	45 DP-1	45 DP-1		
Days After Emergence	19 DE-1	37 DE-1	37 DE-1	37 DE-1		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl	7	8	9	10
No. Name	Rate Unit	Code				
1 UNTREATED CHECK			0.0	0.0	0.0	0.0
2 ACURON HERBICIDE	3 PT/A	B		100.0 -	100.0 -	100.0 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
3 HALEX GT	2 QT/A	B		99.3 -	100.0 -	100.0 -
AMSOL	3 LB AI/A	B				
4 ARMEZON PRO	24 FL OZ/A	B		98.0 -	100.0 -	100.0 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
5 RESICORE	44 FL OZ/A	B		99.8 -	100.0 -	100.0 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
6 V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	B		99.3 -	100.0 -	100.0 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
7 V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	B		100.0 -	100.0 -	100.0 -
AATREX	0.75 LB AI/A	B				
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
8 ACURON HERBICIDE	1.5 QT/A	A	100.0 -	100.0 -	100.0 -	100.0 -
ACURON HERBICIDE	1.5 QT/A	C				
ROUNDUP POWER MAX(AE)	1 QT/A	C				
AMSOL	3 LB AI/A	C				
9 V-10494 2.04 LBAI/GAL SC 2146	18 FL OZ/A	A	98.8 -	100.0 -	100.0 -	100.0 -
V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	C				
ROUNDUP POWER MAX(AE)	1 QT/A	C				
AMSOL	3 LB AI/A	C				

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=20,21,22  
Could not calculate LSD (% mean diff) for columns 1,3,4,6,9,10,12,13,15,16,18,19 because error mean square = 0.  
^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	ECHCG	AMBTR	CHEAL	ECHCG		
Pest Scientific Name	Echinochloa cru>	Ambrosia trifida	Chenopodium alb>	Echinochloa cru>		
Pest Name	common barnyard>	Giant ragweed	common lambsqua>	common barnyard>		
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	6/11/2021	6/29/2021	6/29/2021	6/29/2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size						
Number of Subsamples	1	1	1	1		
Data Entry Date	10/8/2021	10/8/2021	10/8/2021	10/8/2021		
Rating Timing	27 DAA	28 DAB	28 DAB	28 DAB		
Days After First/Last Applic.	27, 10	45, 18	45, 18	45, 18		
Plant-Eval Interval	27 DP-1	45 DP-1	45 DP-1	45 DP-1		
Days After Emergence	19 DE-1	37 DE-1	37 DE-1	37 DE-1		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl	7	8	9	10
No. Name	Rate Unit	Code				
10 V-10494 2.04 LBAI/GAL SC 2146	18 FL OZ/A	A	100.0 -	100.0 -	100.0 -	100.0 -
AATREX	0.5 LB AI/A	A				
V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	C				
AATREX	0.5 LB AI/A	C				
ROUNDUP POWER MAX(AE)	1 QT/A	C				
AMSOL	3 LB AI/A	C				
LSD P=.05	2.50			1.63	.	.
Standard Deviation	1.44			1.12	0.00	0.00
CV	1.45			1.12	0.0	0.0
Grand Mean	99.58			99.58	100.00	100.00
Levene's F^				3.226	.	.
Levene's Prob(F)				0.011*	.	.
Rank X2				.	.	.
P(Rank X2)				.	.	.
Skewness^	-3.4641*			-0.8803*	.	.
Kurtosis^	12.0*			2.9504*	.	.
Replicate F	1.000			0.616	0.000	0.000
Replicate Prob(F)	0.4547			0.6114	1.0000	1.0000
Treatment F	1.000			1.453	0.000	0.000
Treatment Prob(F)	0.4219			0.2262	1.0000	1.0000

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=20,21,22  
Could not calculate LSD (% mean diff) for columns 1,3,4,6,9,10,12,13,15,16,18,19 because error mean square = 0.  
^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	AMBTR	CHEAL	ECHCG	AMBTR		
Pest Scientific Name	Ambrosia trifida	Chenopodium alb>	Echinochloa cru>	Ambrosia trifida		
Pest Name	Giant ragweed	common lambsqua>	common barnyard>	Giant ragweed		
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	7/9/2021	7/9/2021	7/9/2021	7/23/2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size						
Number of Subsamples	1	1	1	1		
Data Entry Date	10/8/2021	10/8/2021	10/8/2021	10/8/2021		
Rating Timing	28 DAC	28 DAC	28 DAC	42 DAC		
Days After First/Last Applic.	55, 28	55, 28	55, 28	69, 42		
Plant-Eval Interval	55 DP-1	55 DP-1	55 DP-1	69 DP-1		
Days After Emergence	47 DE-1	47 DE-1	47 DE-1	61 DE-1		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl	11	12	13	14
No. Name	Rate Unit	Code				
1 UNTREATED CHECK			0.0	0.0	0.0	0.0
2 ACURON HERBICIDE	3 PT/A	B	100.0 -	100.0 -	100.0 -	100.0 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
3 HALEX GT	2 QT/A	B	98.8 -	100.0 -	100.0 -	98.8 -
AMSOL	3 LB AI/A	B				
4 ARMEZON PRO	24 FL OZ/A	B	97.5 -	100.0 -	100.0 -	97.5 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
5 RESICORE	44 FL OZ/A	B	98.8 -	100.0 -	100.0 -	98.8 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
6 V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	B	98.8 -	100.0 -	100.0 -	98.8 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
7 V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	B	100.0 -	100.0 -	100.0 -	100.0 -
AATREX	0.75 LB AI/A	B				
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
8 ACURON HERBICIDE	1.5 QT/A	A	100.0 -	100.0 -	100.0 -	100.0 -
ACURON HERBICIDE	1.5 QT/A	C				
ROUNDUP POWER MAX(AE)	1 QT/A	C				
AMSOL	3 LB AI/A	C				
9 V-10494 2.04 LBAI/GAL SC 2146	18 FL OZ/A	A	100.0 -	100.0 -	100.0 -	100.0 -
V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	C				
ROUNDUP POWER MAX(AE)	1 QT/A	C				
AMSOL	3 LB AI/A	C				

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=20,21,22

Could not calculate LSD (% mean diff) for columns 1,3,4,6,9,10,12,13,15,16,18,19 because error mean square = 0.

^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	AMBTR	CHEAL	ECHCG	AMBTR		
Pest Scientific Name	Ambrosia trifida	Chenopodium alb>	Echinochloa cru>	Ambrosia trifida		
Pest Name	Giant ragweed	common lambsqua>	common barnyard>	Giant ragweed		
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	7/9/2021	7/9/2021	7/9/2021	7/23/2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size						
Number of Subsamples	1	1	1	1		
Data Entry Date	10/8/2021	10/8/2021	10/8/2021	10/8/2021		
Rating Timing	28 DAC	28 DAC	28 DAC	42 DAC		
Days After First/Last Applic.	55, 28	55, 28	55, 28	69, 42		
Plant-Eval Interval	55 DP-1	55 DP-1	55 DP-1	69 DP-1		
Days After Emergence	47 DE-1	47 DE-1	47 DE-1	61 DE-1		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl	11	12	13	14
No. Name	Rate Unit	Code				
10 V-10494 2.04 LBAI/GAL SC 2146	18 FL OZ/A	A	100.0 -	100.0 -	100.0 -	100.0 -
AATREX	0.5 LB AI/A	A				
V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	C				
AATREX	0.5 LB AI/A	C				
ROUNDUP POWER MAX(AE)	1 QT/A	C				
AMSOL	3 LB AI/A	C				
LSD P=.05	2.56	.				2.56
Standard Deviation	1.75	0.00		0.00	0.00	1.75
CV	1.76	0.0		0.0	0.0	1.76
Grand Mean	99.31	100.00		100.00	100.00	99.31
Levene's F^	1.609	.		.	.	1.609
Levene's Prob(F)	0.169	.		.	.	0.169
Rank X2	.	.		.	.	.
P(Rank X2)	.	.		.	.	.
Skewness^	-0.8954*	.		.	.	-0.8954*
Kurtosis^	0.9434	.		.	.	0.9434
Replicate F	0.830	0.000		0.000	0.000	0.830
Replicate Prob(F)	0.4903	1.0000		1.0000	1.0000	0.4903
Treatment F	1.075	0.000		0.000	0.000	1.075
Treatment Prob(F)	0.4123	1.0000		1.0000	1.0000	0.4123

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=20,21,22  
Could not calculate LSD (% mean diff) for columns 1,3,4,6,9,10,12,13,15,16,18,19 because error mean square = 0.  
^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	CHEAL	ECHCG	AMBTR	CHEAL		
Pest Scientific Name	Chenopodium alb>	Echinochloa cru>	Ambrosia trifida	Chenopodium alb>		
Pest Name	common lambsqua>	common barnyard>	Giant ragweed	common lambsqua>		
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	7/23/2021	7/23/2021	8/6/2021	8/6/2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size						
Number of Subsamples	1	1	1	1		
Data Entry Date	10/8/2021	10/8/2021	10/8/2021	10/8/2021		
Rating Timing	42 DAC	42 DAC	56 DAC	56 DAC		
Days After First/Last Applic.	69, 42	69, 42	83, 56	83, 56		
Plant-Eval Interval	69 DP-1	69 DP-1	83 DP-1	83 DP-1		
Days After Emergence	61 DE-1	61 DE-1	75 DE-1	75 DE-1		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl	15	16	17	18
No. Name	Rate Unit	Code				
1 UNTREATED CHECK			0.0	0.0	0.0	0.0
2 ACURON HERBICIDE	3 PT/A	B	100.0 -	100.0 -	100.0 -	100.0 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
3 HALEX GT	2 QT/A	B	100.0 -	100.0 -	98.8 -	100.0 -
AMSOL	3 LB AI/A	B				
4 ARMEZON PRO	24 FL OZ/A	B	100.0 -	100.0 -	97.5 -	100.0 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
5 RESICORE	44 FL OZ/A	B	100.0 -	100.0 -	98.8 -	100.0 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
6 V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	B	100.0 -	100.0 -	98.8 -	100.0 -
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
7 V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	B	100.0 -	100.0 -	100.0 -	100.0 -
AATREX	0.75 LB AI/A	B				
ROUNDUP POWER MAX(AE)	1 QT/A	B				
AMSOL	3 LB AI/A	B				
8 ACURON HERBICIDE	1.5 QT/A	A	100.0 -	100.0 -	100.0 -	100.0 -
ACURON HERBICIDE	1.5 QT/A	C				
ROUNDUP POWER MAX(AE)	1 QT/A	C				
AMSOL	3 LB AI/A	C				
9 V-10494 2.04 LBAI/GAL SC 2146	18 FL OZ/A	A	100.0 -	100.0 -	100.0 -	100.0 -
V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	C				
ROUNDUP POWER MAX(AE)	1 QT/A	C				
AMSOL	3 LB AI/A	C				

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=20,21,22  
Could not calculate LSD (% mean diff) for columns 1,3,4,6,9,10,12,13,15,16,18,19 because error mean square = 0.  
^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	CHEAL	ECHCG	AMBTR	CHEAL		
Pest Scientific Name	Chenopodium alb>	Echinochloa cru>	Ambrosia trifida	Chenopodium alb>		
Pest Name	common lambsqua>	common barnyard>	Giant ragweed	common lambsqua>		
Crop Type, Code						
BBCH Scale						
Crop Scientific Name						
Crop Name						
Rating Date	7/23/2021	7/23/2021	8/6/2021	8/6/2021		
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size						
Number of Subsamples	1	1	1	1		
Data Entry Date	10/8/2021	10/8/2021	10/8/2021	10/8/2021		
Rating Timing	42 DAC	42 DAC	56 DAC	56 DAC		
Days After First/Last Applic.	69, 42	69, 42	83, 56	83, 56		
Plant-Eval Interval	69 DP-1	69 DP-1	83 DP-1	83 DP-1		
Days After Emergence	61 DE-1	61 DE-1	75 DE-1	75 DE-1		
ARM Action Codes						
Number of Decimals						
Trt Treatment	Rate	Appl	15	16	17	18
No. Name	Rate Unit	Code				
10 V-10494 2.04 LBAI/GAL SC 2146	18 FL OZ/A	A	100.0 -	100.0 -	100.0 -	100.0 -
AATREX	0.5 LB AI/A	A				
V-10494 2.04 LBAI/GAL SC 2146	14 FL OZ/A	C				
AATREX	0.5 LB AI/A	C				
ROUNDUP POWER MAX(AE)	1 QT/A	C				
AMSOL	3 LB AI/A	C				
LSD P=.05					2.56	
Standard Deviation	0.00		0.00	0.00	1.75	0.00
CV	0.0		0.0	0.0	1.76	0.0
Grand Mean	100.00		100.00	100.00	99.31	100.00
Levene's F^					1.609	
Levene's Prob(F)					0.169	
Rank X2						
P(Rank X2)						
Skewness^					-0.8954*	
Kurtosis^					0.9434	
Replicate F	0.000		0.000	0.000	0.830	0.000
Replicate Prob(F)	1.0000		1.0000	1.0000	0.4903	1.0000
Treatment F	0.000		0.000	0.000	1.075	0.000
Treatment Prob(F)	1.0000		1.0000	1.0000	0.4123	1.0000

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=20,21,22  
Could not calculate LSD (% mean diff) for columns 1,3,4,6,9,10,12,13,15,16,18,19 because error mean square = 0.  
^Calculated from residual.

Trt	Treatment No. Name	Rate Rate Unit	Appl Code	19	20	21	22
	1 UNTREATED CHECK			0.0	15.703	16.50	44.7
	2 ACURON HERBICIDE ROUNDUP POWER MAX(AE) AMSOL	3 PT/A 1 QT/A 3 LB AI/A	B B B	100.0 -	68.215 ab	17.78 -	191.3 ab
	3 HALEX GT AMSOL	2 QT/A 3 LB AI/A	B B	100.0 -	64.643 bc	16.60 -	183.8 bc
	4 ARMEZON PRO ROUNDUP POWER MAX(AE) AMSOL	24 FL OZ/A 1 QT/A 3 LB AI/A	B B B	100.0 -	57.503 c	17.08 -	162.5 cd
	5 RESICORE ROUNDUP POWER MAX(AE) AMSOL	44 FL OZ/A 1 QT/A 3 LB AI/A	B B B	100.0 -	67.630 ab	17.35 -	190.6 ab
	6 V-10494 2.04 LBAI/GAL SC 2146 ROUNDUP POWER MAX(AE) AMSOL	14 FL OZ/A 1 QT/A 3 LB AI/A	B B B	100.0 -	56.300 c	16.98 -	159.4 d
	7 V-10494 2.04 LBAI/GAL SC 2146 AATREX ROUNDUP POWER MAX(AE) AMSOL	14 FL OZ/A 0.75 LB AI/A 1 QT/A 3 LB AI/A	B B B B	100.0 -	69.520 ab	17.28 -	196.1 ab
	8 ACURON HERBICIDE ACURON HERBICIDE ROUNDUP POWER MAX(AE) AMSOL	1.5 QT/A 1.5 QT/A 1 QT/A 3 LB AI/A	A C C C	100.0 -	69.615 ab	17.83 -	195.0 ab
	9 V-10494 2.04 LBAI/GAL SC 2146 V-10494 2.04 LBAI/GAL SC 2146 ROUNDUP POWER MAX(AE) AMSOL	18 FL OZ/A 14 FL OZ/A 1 QT/A 3 LB AI/A	A C C C	100.0 -	70.563 ab	17.28 -	199.0 ab

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=20,21,22  
Could not calculate LSD (% mean diff) for columns 1,3,4,6,9,10,12,13,15,16,18,19 because error mean square = 0.  
^Calculated from residual.



# Purdue Weed Science

## POST and Sequential weed control with Maverick (V-10494) Primary/Core PRE soil residual

Trial ID: 21S-TPAC-CORN-06	Location: TPAC	Trial Year: 2021
Protocol ID: 21S-TPAC-CORN-06	Investigator (Creator): Dr. Bill Johnson	
Project ID:	Study Director:	
	Sponsor Contact:	

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = US

CHEAL, Chenopodium album, common lambsquarters = US

ECHCG, Echinochloa crus-galli, common barnyardgrass = US

Crop Type, Code

C = EPP0 species (Bayer) codes

ZEAMX, BCOR, Zea mays, Corn = US

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

WEIGHT = weight

MOICON = moisture content

YIELD = yield

Rating Unit/Min/Max

%, 0, 100 = percent

LB, , = pound

BU, , = bushel

PLOT = total plot

A = acre

Plant-Eval Interval

14 DP-1 = 1 ZEAMX 5/15/2021

27 DP-1 = 1 ZEAMX 5/15/2021

41 DP-1 = 1 ZEAMX 5/15/2021

55 DP-1 = 1 ZEAMX 5/15/2021

45 DP-1 = 1 ZEAMX 5/15/2021

69 DP-1 = 1 ZEAMX 5/15/2021

83 DP-1 = 1 ZEAMX 5/15/2021

157 DP-1 = 1 ZEAMX 5/15/2021

ARM Action Codes

TY1 = 2.88095238\*[C20]\*(100-[C21])/84.5