

Purdue University Weed Science

Showcase Treatments for Residual Control of TriVolt

Trial ID: 22S-MGS-CORN-01 Cooperator Trial ID:
 Protocol ID: 22S-MGS-CORN-01 Location: MEIGS Trial Year: 2022
 Project ID: HP22USAEOA Project ID 2: Project ID 3:
 Study Director: Dr. Bill Johnson Sponsor Contact: Daren Bohannon - Bayer
 Investigator (Creator): 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: May-2-2022
Initiation Date: May-11-2022

Trial Location

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

Latitude of LL Corner °: 40.2207667 N
Longitude of LL Corner °: -86.8800833 W

Conducted Under GLP: No
Conducted Under GEP: No

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
State/Prov: IN **Postal Code:** 47907

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 **Postal Code:** 47907

Role: SPONSR sponsor
Sponsor: Daren Bohannon - Bayer
Role: COOPER cooperator
Cooperator: Jay Young **Title:** Superintendent
Organization: Purdue University
Address 1: 8343 US 231 S **Phone No.:** 765-538-3422
City: Lafayette **Fax No.:** 765-538-3423
Country: USA United States **E-mail:** jayyoung@purdue.edu
State/Prov: IN **Postal Code:** 47909

Crop Description

Crop 1: C ZEAMX Zea mays Corn **BBCH Scale:** BCOR
Entry Date: Jun-22-2022 **Stage Scale:** BBCH
Variety: DKC 56-65
Attributes: Glyphosate-R and Glufosinate-R
Planting Date: May-11-2022 **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: 83 F **Soil Moisture:** NORMAL normal, adequate
Emergence Date: May-17-2022

Pest Description

Pest 1 Type: W **Code:** AMATA *Amaranthus x tamariscinus* **Entry Date:** Jun-22-2022
Common Name: common water hemp **Stage Scale:** BBCH
Attributes: Glyphosate-R and PPO-R

Pest 2 Type: W **Code:** AMBTR *Ambrosia trifida* **Entry Date:** Jun-22-2022
Common Name: Giant ragweed **Stage Scale:** BBCH

Pest 3 Type: W **Code:** ECHCG *Echinochloa crus-galli* **Entry Date:** Jun-22-2022
Common Name: Common barnyard grass **Stage Scale:** BBCH

Pest 4 Type: W **Code:** SETFA *Setaria faberi* **Entry Date:** Jul-18-2022
Common Name: Giant foxtail **Stage Scale:** BBCH

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Site and Design

Treated Plot Width: 6.67 FT **Site Type:** FIELD field
Treated Plot Length: 25 FT **Experimental Unit:** 1 PLOT plot
Treated Plot Area: 166.75 FT² **Tillage Type:** NOTILL no-till
Replications: 4 **Treatments:** 10 **Plots:** 40 **Study Design:** RACOB L Randomized Complete Block (RCB)

Field Prep./Maintenance:

180 lbs of N applied as Urea on 5/16/22

Nontreated checks were sprayed with glyphosate to control giant ragweed

Soil Description

Description Name: MEIGS-S3
% Sand: 21 **% OM:** 2.2 **Texture:** SIL silt loam
% Silt: 54 **Soil Name:** Starks-Fincastle complex
% Clay: 25
pH: 6.8 **CEC:** 8.3

Application Description

	A	B
Application Date	May-11-2022	Jun-2-2022
Appl. Start Time	4:35 PM	5:34 PM
Appl. Stop Time	4:45 PM	5:50 PM
Interval to Prev. Appl.		22 DAYS
Application Method	SPRAY	SPRAY
Application Timing	PRE	12" CORN
Application Placement	BROSOI	BROFOL
Applied By	M. ZIMMER	J. HAARMANN
Appl. Entry Date	Jun-22-2022	Jun-22-2022
Air Temperature Start, Stop	92, 92 F	78, 78 F
% Relative Humidity Start, Stop	45, 45	34, 34
Wind Velocity+Dir. Start	7 MPH, SE	6.2 MPH, N
Wet Leaves (Y/N)	N, no	N, no
Soil Temperature	83 F	92 F
Soil Moisture	NORMAL	NORMAL
% Cloud Cover	50	45

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-6	16
Stage Majority, Percent	00, -	13, -
Stage Minimum, Percent	00, -	13, -
Stage Maximum, Percent	00, -	14, -
Height Average	0 IN	8 IN

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Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale	AMATA, W, BBCH	AMATA, W, BBCH
Height Average	0 IN	0 IN
Density Average	0 FT2	0 FT2
Pest 2 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH
Height Average	0 IN	2 IN
Height Minimum, Maximum		1, 3.5
Density Average	0 FT2	1 FT2
Density Minimum, Maximum		0, 3
Pest 3 Code, Type, Scale	ECHCG, W, BBCH	ECHCG, W, BBCH
Height Average	0 IN	4 IN
Height Minimum, Maximum		0.5, 5.5
Density Average	0 FT2	1 FT2
Density Minimum, Maximum		0, 6
Pest 4 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH

Application Equipment

	A	B
Appl. Equipment	CO2 BACKPACK	CO2 BACKPACK
Equipment Type	BACSPR	BACSPR
Operation Pressure	30 PSI	36 PSI
Nozzle Model	XR	TT
Nozzle Type	FLAFXR	TEEJTU
Nozzle TradeName	TEEJET	TEEJET
Nozzle Tip Size, Color	80015, GREEN	110015, GREEN
Nozzle Spacing	20 IN	20 IN
Nozzles/Row	4	4
Boom Length	6.67 FT	6.67 FT
Ground Speed	3 MPH	3 MPH
Carrier	WATER	WATER
Application Amount	15 GAL/AC	15 GAL/AC
Mix Size	945 mL	945 mL
Propellant	COMCO2	COMCO2

Notes

Context	Date	By	Notes
STATUS	May-2-2022	Dr. Bill Johnson	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Jun-22-2022	Dr. Bill Johnson	Automatically added by ARM: Trial Status changed to: E: changed by (EINJOW).
STATUS	Jun-22-2022	Dr. Bill Johnson	Automatically added by ARM: Trial Status updated to 'E' when Initiation Date entered.

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 Project ID: HP22USAEOA Project ID 2: Project ID 3:
 Study Director: Dr. Bill Johnson Sponsor Contact: Daren Bohannon - Bayer
 Investigator (Creator): Dr. Bill Johnson

Pest Type				W, Weed	W, Weed		
Pest Code				SETFA	AMATA		
Pest Scientific Name				Setaria faberi	Amaranthus x ta>		
Pest Name				Giant foxtail	Common waterhemp		
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX		
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR		
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays		
Crop Name	Corn	Corn	Corn	Corn	Corn		
Rating Date	May-25-2022	Jun-1-2022	Jun-16-2022	Jun-16-2022	Jun-16-2022		
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P		
Rating Type	PHYGEN	PHYGEN	PHYGEN	CONTRO	CONTRO		
Rating Unit/Min/Max	-, 0, 100	-, 0, 100	-, 0, 100	-, 0, 100	-, 0, 100		
Number of Subsamples	0	0	0	0	0		
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN		
Data Entry Date	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022		
Rating Timing	A1	A2	A3	A3	A3		
Days After First/Last Applic.	14, 14	21, 21	36, 14	36, 14	36, 14		
Trt-Eval Interval	14 DA-A	21 DA-A	14 DA-B	14 DA-B	14 DA-B		
Plant-Eval Interval	14 DP-1	21 DP-1	36 DP-1	36 DP-1	36 DP-1		
Days After Emergence	8 DE-1	15 DE-1	30 DE-1	30 DE-1	30 DE-1		
Trt Treatment	Rate	Appl	1	2	3	4	5
No. Name	Rate Unit	Code					
1 NONTREATED			0.0	0.0	0.0	0.0	0.0
2 TRIVOLT	20 oz/a	A	0.0 -	0.0 -	0.0 -	86.8 b	92.0 b
AATREX	1 qt/a	A					
3 ACURON	3.0 qt/a	A	0.0 -	0.0 -	0.0 -	95.0 ab	94.3 b
4 RESICORE	3.0 qt/a	A	0.0 -	0.0 -	0.0 -	67.5 c	92.5 b
AATREX	1 qt/a	A					
5 TRIVOLT	12 oz/a	A	0.0 -	0.0 -	0.0 -	97.3 ab	100.0 a
AATREX	1 pt/a	A					
CLASS ACT RIDION	1 % v/v	B					
DIFLEXX DUO	24 oz/a	B					
AATREX	1 pt/a	B					
ROUNDUP POWERMAX 3	30 oz/a	B					
6 TRIVOLT	12 oz/a	A	0.0 -	0.0 -	0.0 -	96.8 ab	100.0 a
AATREX	1 pt/a	A					
AMSOL	2.5 % v/v	B					
LAUDIS	3 oz/a	B					
AATREX	1 pt/a	B					
ROUNDUP POWERMAX 3	30 oz/a	B					
7 TRIVOLT	12 oz/a	A	0.0 -	0.0 -	0.0 -	100.0 a	100.0 a
AATREX	1 pt/a	A					
AMSOL	2.5 % v/v	B					
CAPRENO	3 oz/a	B					
AATREX	1 pt/a	B					
8 TRIVOLT	12 oz/a	A	0.0 -	0.0 -	0.0 -	99.3 a	100.0 a
AATREX	1 pt/a	A					
AMSOL	2.5 % v/v	B					
CAPRENO	3 oz/a	B					
AATREX	1 pt/a	B					
ROUNDUP POWERMAX 3	30 oz/a	B					
9 TRIVOLT	12 oz/a	A	0.0 -	0.0 -	0.0 -	100.0 a	100.0 a
AATREX	1 pt/a	A					
AMSOL	2.5 % v/v	B					
HARNESS MAX	40 oz/a	B					
AATREX	1 pt/a	B					
ROUNDUP POWERMAX 3	30 oz/a	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 1,2,3 because error mean square = 0.
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Pest Type						W, Weed	W, Weed
Pest Code						SETFA	AMATA
Pest Scientific Name						Setaria faberi	Amaranthus x ta>
Pest Name						Giant foxtail	Common waterhemp
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays	Zea mays
Crop Name	Corn	Corn	Corn	Corn	Corn	Corn	Corn
Rating Date	May-25-2022	Jun-1-2022	Jun-16-2022	Jun-16-2022	Jun-16-2022	Jun-16-2022	Jun-16-2022
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P	PLOT, P
Rating Type	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN	PHYGEN
Rating Unit/Min/Max	-, 0, 100	-, 0, 100	-, 0, 100	-, 0, 100	-, 0, 100	-, 0, 100	-, 0, 100
Number of Subsamples	0	0	0	0	0	0	0
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022
Rating Timing	A1	A2	A3	A3	A3	A3	A3
Days After First/Last Applic.	14, 14	21, 21	36, 14	36, 14	36, 14	36, 14	36, 14
Trt-Eval Interval	14 DA-A	21 DA-A	14 DA-B	14 DA-B	14 DA-B	14 DA-B	14 DA-B
Plant-Eval Interval	14 DP-1	21 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1	36 DP-1
Days After Emergence	8 DE-1	15 DE-1	30 DE-1	30 DE-1	30 DE-1	30 DE-1	30 DE-1
Trt Treatment	Rate	Rate	Rate	Rate	Rate	Rate	Rate
No. Name	Unit Code	Unit Code	Unit Code	Unit Code	Unit Code	Unit Code	Unit Code
10 MAVERICK	18 oz/a A	0.0 -	0.0 -	0.0 -	100.0 a	100.0 a	
AATREX	1 pt/a A						
AMSOL	2.5 % v/v B						
MAVERICK	14 oz/a B						
AATREX	1 pt/a B						
ROUNDUP POWERMAX 3	30 oz/a B						
LSD P=.05		.	.	.	11.59	5.30	
Standard Deviation	0.00	0.00	0.00	0.00	7.94	3.63	
CV	0.0	0.0	0.0	0.0	8.49	3.72	
Levene's F^	.	.	.	.	11.029*	0.876	
Levene's Prob(F)	.	.	.	.	0.00*	0.548	
Shapiro-Wilk^	.	.	.	.	0.9835	0.8766*	
P(Shapiro-Wilk)^	.	.	.	.	0.8548	0.0008*	
Skewness^	.	.	.	.	0.0925	-0.9976*	
P(Skewness)^	.	.	.	.	0.8222	0.0199*	
Kurtosis^	.	.	.	.	0.6419	3.3618*	
P(Kurtosis)^	.	.	.	.	0.4276	0.0002*	
Replicate F	0.000	0.000	0.000	0.000	2.552	1.590	
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000	0.0793	0.2178	
Treatment F	0.000	0.000	0.000	0.000	7.194	3.907	
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000	0.0001	0.0044	

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	ECHCG	SIDSP	SETFA	AMATA		
Pest Scientific Name	Echinochloa cru>	Sida spinosa	Setaria faberi	Amaranthus x ta>		
Pest Name	Common barnyard>	Prickly sida	Giant foxtail	Common waterhemp		
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	Jun-16-2022	Jun-16-2022	Jul-1-2022	Jul-1-2022		
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, P		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	-, 0, 100	-, 0, 100	-, 0, 100	-, 0, 100		
Number of Subsamples	0	0	0	0		
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN		
Data Entry Date	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022		
Rating Timing	A3	A3	A4	A4		
Days After First/Last Applic.	36, 14	36, 14	51, 29	51, 29		
Trt-Eval Interval	14 DA-B	14 DA-B	29 DA-B	29 DA-B		
Plant-Eval Interval	36 DP-1	36 DP-1	51 DP-1	51 DP-1		
Days After Emergence	30 DE-1	30 DE-1	45 DE-1	45 DE-1		
Trt Treatment No. Name	Rate	Appl Code	6	7	8	9
1 NONTREATED			0.0	0.0	0.0	0.0
2 TRIVOLT AATREX	20 oz/a 1 qt/a	A A	85.5 b	97.5 -	60.0 cd	67.5 b
3 ACURON	3.0 qt/a	A	94.5 ab	97.5 -	86.3 ab	76.3 b
4 RESICORE AATREX	3.0 qt/a 1 qt/a	A A	67.5 c	95.0 -	42.5 d	80.0 b
5 TRIVOLT AATREX CLASS ACT RIDION DIFLEXX DUO AATREX ROUNDUP POWERMAX 3	12 oz/a 1 pt/a 1 % v/v 24 oz/a 1 pt/a 30 oz/a	A A B B B B	98.0 a	100.0 -	78.8 abc	96.3 a
6 TRIVOLT AATREX AMSOL LAUDIS AATREX ROUNDUP POWERMAX 3	12 oz/a 1 pt/a 2.5 % v/v 3 oz/a 1 pt/a 30 oz/a	A A B B B B	96.8 ab	100.0 -	77.5 bc	99.8 a
7 TRIVOLT AATREX AMSOL CAPRENO AATREX	12 oz/a 1 pt/a 2.5 % v/v 3 oz/a 1 pt/a	A A B B B	98.8 a	100.0 -	87.5 ab	99.5 a
8 TRIVOLT AATREX AMSOL CAPRENO AATREX ROUNDUP POWERMAX 3	12 oz/a 1 pt/a 2.5 % v/v 3 oz/a 1 pt/a 30 oz/a	A A B B B B	99.3 a	100.0 -	93.8 ab	100.0 a
9 TRIVOLT AATREX AMSOL HARNES MAX AATREX ROUNDUP POWERMAX 3	12 oz/a 1 pt/a 2.5 % v/v 40 oz/a 1 pt/a 30 oz/a	A A B B B B	100.0 a	100.0 -	100.0 a	100.0 a

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	W, Weed	W, Weed	W, Weed	W, Weed
Pest Type	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	ECHCG	SIDSP	SETFA	AMATA
Pest Scientific Name	Echinochloa cru>	Sida spinosa	Setaria faberi	Amaranthus x ta>
Pest Name	Common barnyard>	Prickly sida	Giant foxtail	Common waterhemp
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	Jun-16-2022	Jun-16-2022	Jul-1-2022	Jul-1-2022
Part Rated	PLOT, P	PLOT, P	PLOT, P	PLOT, P
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	-, 0, 100	-, 0, 100	-, 0, 100	-, 0, 100
Number of Subsamples	0	0	0	0
Assessed By	J. HAARMANN	J. HAARMANN	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-18-2022	Jul-18-2022	Jul-18-2022	Jul-18-2022
Rating Timing	A3	A3	A4	A4
Days After First/Last Applic.	36, 14	36, 14	51, 29	51, 29
Trt-Eval Interval	14 DA-B	14 DA-B	29 DA-B	29 DA-B
Plant-Eval Interval	36 DP-1	36 DP-1	51 DP-1	51 DP-1
Days After Emergence	30 DE-1	30 DE-1	45 DE-1	45 DE-1
Trt Treatment	6	7	8	9
No. Name				
10 MAVERICK	18 oz/a A			
AATREX	1 pt/a A			
AMSOL	2.5 % v/v B			
MAVERICK	14 oz/a B			
AATREX	1 pt/a B			
ROUNDUP POWERMAX 3	30 oz/a B			
LSD P=.05	11.48	4.81	21.45	13.56
Standard Deviation	7.86	3.30	14.70	9.29
CV	8.42	3.34	18.31	10.21
Levene's F^	10.152*	1.327	1.459	3.211*
Levene's Prob(F)	0.00*	0.272	0.218	0.011*
Shapiro-Wilk^	0.9798	0.8466*	0.9815	0.9225*
P(Shapiro-Wilk)^	0.7383	0.0002*	0.7955	0.0149*
Skewness^	0.1646	-1.3197*	-0.207	-0.5137
P(Skewness)^	0.6897	0.0027*	0.6157	0.2171
Kurtosis^	1.0478	3.0815*	-0.5928	2.1345*
P(Kurtosis)^	0.1987	0.0005*	0.4635	0.0114*
Replicate F	2.194	1.191	3.878	1.323
Replicate Prob(F)	0.1150	0.3340	0.0216	0.2900
Treatment F	7.412	1.213	6.390	7.583
Treatment Prob(F)	0.0001	0.3334	0.0002	0.0001

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Pest Type	W, Weed	W, Weed
Pest Code	ECHCG	SIDSP
Pest Scientific Name	Echinochloa cru>	Sida spinosa
Pest Name	Common barnyard>	Prickly sida
Crop Type, Code	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays
Crop Name	Corn	Corn
Rating Date	Jul-1-2022	Jul-1-2022
Part Rated	PLOT, P	PLOT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	-, 0, 100	-, 0, 100
Number of Subsamples	0	0
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-18-2022	Jul-18-2022
Rating Timing	A4	A4
Days After First/Last Applic.	51, 29	51, 29
Trt-Eval Interval	29 DA-B	29 DA-B
Plant-Eval Interval	51 DP-1	51 DP-1
Days After Emergence	45 DE-1	45 DE-1
Trt Treatment	10	11
No. Name		
1 NONTREATED	0.0	0.0
2 TRIVOLT AATREX	20 oz/a A 1 qt/a A	61.3 bc 97.5 a
3 ACURON	3.0 qt/a A	90.0 a 82.5 b
4 RESICORE AATREX	3.0 qt/a A 1 qt/a A	47.5 c 88.8 ab
5 TRIVOLT AATREX CLASS ACT RIDION DIFLEXX DUO AATREX ROUNDUP POWERMAX 3	12 oz/a A 1 pt/a A 1 % v/v B 24 oz/a B 1 pt/a B 30 oz/a B	80.0 ab 97.5 a
6 TRIVOLT AATREX AMSOL LAUDIS AATREX ROUNDUP POWERMAX 3	12 oz/a A 1 pt/a A 2.5 % v/v B 3 oz/a B 1 pt/a B 30 oz/a B	76.3 ab 100.0 a
7 TRIVOLT AATREX AMSOL CAPRENO AATREX	12 oz/a A 1 pt/a A 2.5 % v/v B 3 oz/a B 1 pt/a B	86.3 a 100.0 a
8 TRIVOLT AATREX AMSOL CAPRENO AATREX ROUNDUP POWERMAX 3	12 oz/a A 1 pt/a A 2.5 % v/v B 3 oz/a B 1 pt/a B 30 oz/a B	93.8 a 96.3 a
9 TRIVOLT AATREX AMSOL HARNES MAX AATREX ROUNDUP POWERMAX 3	12 oz/a A 1 pt/a A 2.5 % v/v B 40 oz/a B 1 pt/a B 30 oz/a B	99.8 a 100.0 a

Means followed by same letter or symbol do not significantly differ (P=.05, LSD).
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.
 Untreated treatment(s) 1 excluded from analysis.
 Could not calculate LSD (% mean diff) for columns 1,2,3 because error mean square = 0.
 ^Calculated from residual.

Purdue University Weed Science

Showcase Treatments for Residual Control of TriVolt

Trial ID: 22S-MGS-CORN-01 Cooperator Trial ID:
 Protocol ID: 22S-MGS-CORN-01 Location: MEIGS Trial Year: 2022
 Project ID: HP22USAEOA Project ID 2: Project ID 3:
 Study Director: Dr. Bill Johnson Sponsor Contact: Daren Bohannon - Bayer
 Investigator (Creator): Dr. Bill Johnson

Pest Type	W, Weed	W, Weed
Pest Code	ECHCG	SIDSP
Pest Scientific Name	Echinochloa cru>	Sida spinosa
Pest Name	Common barnyard>	Prickly sida
Crop Type, Code	C, ZEAMX	C, ZEAMX
BBCH Scale	BCOR	BCOR
Crop Scientific Name	Zea mays	Zea mays
Crop Name	Corn	Corn
Rating Date	Jul-1-2022	Jul-1-2022
Part Rated	PLOT, P	PLOT, P
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	-, 0, 100	-, 0, 100
Number of Subsamples	0	0
Assessed By	J. HAARMANN	J. HAARMANN
Data Entry Date	Jul-18-2022	Jul-18-2022
Rating Timing	A4	A4
Days After First/Last Applic.	51, 29	51, 29
Trt-Eval Interval	29 DA-B	29 DA-B
Plant-Eval Interval	51 DP-1	51 DP-1
Days After Emergence	45 DE-1	45 DE-1
Trt Treatment	10	11
No. Name	Rate Unit Code	
10 MAVERICK	18 oz/a A	95.0 a
AATREX	1 pt/a A	100.0 a
AMSOL	2.5 % v/v B	
MAVERICK	14 oz/a B	
AATREX	1 pt/a B	
ROUNDUP POWERMAX 3	30 oz/a B	
LSD P=.05	23.50	11.62
Standard Deviation	16.10	7.96
CV	19.86	8.31
Levene's F^	2.265	1.005
Levene's Prob(F)	0.054	0.455
Shapiro-Wilk^	0.9711	0.8423*
P(Shapiro-Wilk)^	0.4561	0.0001*
Skewness^	-0.1525	-1.7402*
P(Skewness)^	0.7112	0.0001*
Kurtosis^	-0.7097	7.7864*
P(Kurtosis)^	0.3809	0.0*
Replicate F	2.862	2.060
Replicate Prob(F)	0.0579	0.1322
Treatment F	4.540	2.392
Treatment Prob(F)	0.0018	0.0471

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 1,2,3 because error mean square = 0.
 ^Calculated from residual.

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Trial ID: 22S-MGS-CORN-01 Cooperator Trial ID:
 Protocol ID: 22S-MGS-CORN-01 Location: MEIGS Trial Year: 2022
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 Study Director: Dr. Bill Johnson Sponsor Contact: Daren Bohannon - Bayer
 Investigator (Creator): Dr. Bill Johnson

Pest Type
 W, Weed = Weed or volunteer crop
Pest Code
 SETFA, Setaria faberi, Giant foxtail = US
 AMATA, Amaranthus x tamariscinus, Common waterhemp = US
 ECHCG, Echinochloa crus-galli, Common barnyard grass = US
 SIDSP, Sida spinosa, Prickly sida = US
Crop Type Code
 C = EPPO species (Bayer) codes
 ZEAMX, BCOR, Zea mays, Corn = US
Part Rated
 PLOT = plot
 P = Pest is Part Rated
Rating Type
 PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown
Rating Unit/Min/Max
 , 0, 100 = 0-1 index/scale
Rating Timing
 A1 = 1st Assessment According to Trial Schedule
 A2 = 2nd Assessment According to trial Schedule
 A3 = 3rd Assessment According to Trial Schedule
 A4 = 4th Assessment According to Trial Schedule
Plant-Eval Interval
 14 DP-1 = 1 ZEAMX May-11-2022
 21 DP-1 = 1 ZEAMX May-11-2022
 36 DP-1 = 1 ZEAMX May-11-2022
 51 DP-1 = 1 ZEAMX May-11-2022

Trt No.	Treatment Type Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Code	Rep 1	2	3	4	Notes
1	CHK NONTREATED							101	303	402	507	
2	HERB TRIVOLT	3.65	LBA/GAL	SC	20 oz/a	A		102	205	401	504	
	HERB AATREX	4	LBA/GAL	SC	1 qt/a	A						
3	HERB ACURON	3.44	LBA/GAL	ZC	3.0 qt/a	A		103	306	405	602	
4	HERB RESICORE	3.29	LBA/GAL	CS	3.0 qt/a	A		104	301	407	603	
	HERB AATREX	4	LBA/GAL	SC	1 qt/a	A						
5	HERB TRIVOLT	3.65	LBA/GAL	SC	12 oz/a	A		105	302	307	505	
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	A						
	ADJ CLASS ACT RIDION	100 %		L	1 % v/v	B						
	HERB DIFLEXX DUO	1.53	LBA/GAL	SC	24 oz/a	B						
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	B						
	HERB ROUNDUP POWERMAX 3	4.8	LBAE/GAL	SL	30 oz/a	B						
6	HERB TRIVOLT	3.65	LBA/GAL	SC	12 oz/a	A		106	204	501	506	
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	A						
	ADJ AMSOL	3.4	LBA/GAL	L	2.5 % v/v	B						
	HERB LAUDIS	3.5	LBA/GAL	SC	3 oz/a	B						
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	B						
	HERB ROUNDUP POWERMAX 3	4.8	LBAE/GAL	SL	30 oz/a	B						
7	HERB TRIVOLT	3.65	LBA/GAL	SC	12 oz/a	A		107	305	502	604	
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	A						
	ADJ AMSOL	3.4	LBA/GAL	L	2.5 % v/v	B						
	HERB CAPRENO	3.45	LBA/GAL	SC	3 oz/a	B						
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	B						
8	HERB TRIVOLT	3.65	LBA/GAL	SC	12 oz/a	A		201	207	404	605	
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	A						
	ADJ AMSOL	3.4	LBA/GAL	L	2.5 % v/v	B						
	HERB CAPRENO	3.45	LBA/GAL	SC	3 oz/a	B						
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	B						
	HERB ROUNDUP POWERMAX 3	4.8	LBAE/GAL	SL	30 oz/a	B						
9	HERB TRIVOLT	3.65	LBA/GAL	SC	12 oz/a	A		202	206	403	601	
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	A						
	ADJ AMSOL	3.4	LBA/GAL	L	2.5 % v/v	B						
	HERB HARNESS MAX	3.85	LBA/GAL	SC	40 oz/a	B						
	HERB AATREX	4	LBA/GAL	SC	1 pt/a	B						
	HERB ROUNDUP POWERMAX 3	4.8	LBAE/GAL	SL	30 oz/a	B						

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 Project ID: HP22USAEOA Project ID 2: Project ID 3:
 Study Director: Dr. Bill Johnson Sponsor Contact: Daren Bohannan - Bayer
 Investigator (Creator): Dr. Bill Johnson

Trt No.	Treatment Type Name	Form Conc	Form Unit	Form Type	Rate Rate	Rate Unit	Appl Code	Rep 1	2	3	4	Notes
10	HERB MAVERICK	2.04	LBA/GAL	SC	18	oz/a	A	203	304	406	503	
	HERB AATREX	4	LBA/GAL	SC	1	pt/a	A					
	ADJ AMSOL	3.4	LBA/GAL	L	2.5	% v/v	B					
	HERB MAVERICK	2.04	LBA/GAL	SC	14	oz/a	B					
	HERB AATREX	4	LBA/GAL	SC	1	pt/a	B					
	HERB ROUNDUP POWERMAX 3	4.8	LBAE/GAL	SL	30	oz/a	B					

Sort Order: Replicate 1