

# Purdue Weed Science

## One Pass Herbicide Programs in Corn Demo

Trial ID: 21S-TPAC-CORN-08      Location: TPAC      Trial Year: 2021  
 Protocol ID: 21S-TPAC-CORN-08      Investigator (Creator): Dr. Bill Johnson  
 Project ID: FMC, Helm, Syngenta      Study Director: Brent Mansfield  
 Sponsor Contact: FMC, Helm, Syngenta

### 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

**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:** FMC, Helm, Syngenta  
**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 ZEAMX Zea mays      corn      **Stage Scale:** BBCH

**Variety:** DKC 62-52 RIB  
**Attributes:** GLY-R, GLU-R  
**Planting Date:** 5/15/2021      **Planting Rate:** 34000      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:** 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      **Entry Date:** 10/29/2021  
**Common Name:** Giant ragweed      **Stage Scale:** BBCH

**Pest 2 Type:** W      **Code:** ECHCG Echinochloa crus-galli      **Entry Date:** 10/29/2021  
**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      **Treatments:** 13      **Tillage Type:** CONTIL conventional-till  
**Replications:** 4      **Study Design:** RACOB� Randomized Complete Block (RCB)

### Field Prep./Maintenance:

180 LBS of N as UAN applied on 5/12/21

### Soil Description

**Description Name:** TPAC- Field 4B  
**% Sand:** 17      **% OM:** 3.1      **Texture:** SIL silt loam  
**% Silt:** 56      **pH:** 6.2      **Soil Name:** Toronto-Millbrook  
**% Clay:** 27      **CEC:** 11.5

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**

	<b>A</b>	<b>B</b>	<b>C</b>
<b>Application Date</b>	5/15/2021	6/1/2021	6/11/2021
<b>Appl. Start Time</b>	11:00 AM	12:07 PM	4:34 PM
<b>Appl. Stop Time</b>	11:21 AM	12:10 PM	4:42 PM
<b>Application Method</b>	SPRAY	SPRAY	SPRAY
<b>Application Timing</b>	PREPRE	POSPOS	POSPOS
<b>Application Placement</b>	BROSOI	BROFOL	BROFOL
<b>Applied By</b>	M. ZIMMER	M. ZIMMER	J. HAARMANN
<b>Air Temperature Start, Stop</b>	68.9, 68.9 F	68, 68 F	90, 90 F
<b>% Relative Humidity Start, Stop</b>	40, 40	63, 63	48, 48
<b>Wind Velocity+Dir. Start</b>	8.1 MPH, S	2.5 MPH, N	5 MPH, N
<b>Wet Leaves (Y/N)</b>	N, no	N, no	N, no
<b>Soil Temperature</b>	65 F	63 F	100 F
<b>Soil Moisture</b>	NORMAL	NORMAL	DRY
<b>% Cloud Cover</b>	50	100	50

**Comment:**

The last 5 ft of plot 306 was sprayed twice and the last 5 ft of plot 406 did not get sprayed.

**Crop Stage At Each Application**

	<b>A</b>	<b>B</b>	<b>C</b>
<b>Crop 1 Code, BBCH Scale</b>	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
<b>Days after Emergence</b>	-8	9	19
<b>Stage Majority, Percent</b>	00, -	11, -	14, -
<b>Stage Minimum, Percent</b>	00, -	11, -	13, -
<b>Stage Maximum, Percent</b>	00, -	11, -	14, -
<b>Height Average</b>	0 IN	4 IN	12 IN

**Pest Stage At Each Application**

	<b>A</b>	<b>B</b>	<b>C</b>
<b>Pest 1 Code, Type, Scale</b>	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
<b>Stage Majority, Percent</b>	00, -	12, -	16, -
<b>Stage Minimum, Percent</b>	00, -	11, -	14, -
<b>Stage Maximum, Percent</b>	00, -	14, -	19, -
<b>Height Average</b>	0 IN	2 IN	8 IN
<b>Density Average</b>		1 FT2	1 FT2
<b>Pest 2 Code, Type, Scale</b>	ECHCG, W, BBCH	ECHCG, W, BBCH	ECHCG, W, BBCH
<b>Stage Majority, Percent</b>	00, -	11, -	13, -
<b>Stage Minimum, Percent</b>	00, -	10, -	13, -
<b>Stage Maximum, Percent</b>	00, -	12, -	15, -
<b>Height Average</b>	0 IN	1 IN	4 IN
<b>Density Average</b>		2 FT2	2 FT2

<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	BACSPR	BACSPR
<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 TradeName</b>	TEEJET	TEEJET	TEEJET
<b>Nozzle Tip Size, Color</b>	11002, YELLOW	110015, GREEN	110015, GREEN
<b>Nozzle Spacing</b>	15.0 IN	15 IN	15 IN
<b>Nozzles/Row</b>	8.0	8.0	8.0
<b>Boom Length</b>	10.0 FT	10 FT	10 FT
<b>Boom Height</b>	17.0 IN	20.0 IN	26.0 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		

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## One Pass Herbicide Programs in Corn Demo

Trial ID: 21S-TPAC-CORN-08	Location: TPAC	Trial Year: 2021
Protocol ID: 21S-TPAC-CORN-08	Investigator (Creator): Dr. Bill Johnson	
Project ID: FMC, Helm, Syngenta	Study Director: Brent Mansfield	
	Sponsor Contact: FMC, Helm, Syngenta	

Pest Type					W, Weed AMBTR Giant ragweed	W, Weed ECHCG common barnyard>	W, Weed AMBTR Giant ragweed			
Pest Code										
Pest Name										
Crop Type, Code	C, ZEAMX	C, ZEAMX	C, ZEAMX	C, ZEAMX						
Crop Name	Corn	Corn	Corn	Corn						
Rating Date	5/29/2021	6/11/2021	6/29/2021	7/9/2021	5/29/2021	5/29/2021	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			
Number of Subsamples	1	1	1	1	1	1	1			
Data Entry Date	10/29/2021	10/29/2021	10/29/2021	10/29/2021	10/29/2021	10/29/2021	10/29/2021			
Rating Timing	14 DA-A	27 DA-A	28 DA-B	28 DA-C	14 DA-A	14 DA-A	27 DA-A			
Days After First/Last Applic.	14, 14	27, 10	45, 18	55, 28	14, 14	14, 14	27, 10			
Days After Emergence	6 DE-1	19 DE-1	37 DE-1	47 DE-1	6 DE-1	6 DE-1	19 DE-1			
ARM Action Codes										
Number of Decimals										
Trt No.	Treatment Name	Rate	Appl Code	1	2	3	4	5	6	7
		Rate Unit								
1	NONTREATED		A	0.0 -	0.0 -	0.0 -	0.0 -	0.0 c	0.0 b	0.0 d
2	HELMET MAXX DURANGO DMA AMSOL	2.25 QT/A 32 FL OZ/A 2.5 % V/V	A A A	0.0 -	0.0 -	0.0 -	0.0 -	98.0 b	100.0 a	97.5 c
3	ACURON	3 QT/A	A	0.0 -	0.0 -	0.0 -	0.0 -	100.0 a	100.0 a	99.8 ab
4	LEXAR EZ	3.5 QT/A	A	0.0 -	0.0 -	0.0 -	0.0 -	99.3 ab	100.0 a	98.3 c
5	HARNESS MAX AATREX	75 FL OZ/A 0.75 QT/A	A A	0.0 -	0.0 -	0.0 -	0.0 -	100.0 a	100.0 a	98.5 bc
6	RESICORE	2.5 QT/A	A	0.0 -	0.0 -	0.0 -	0.0 -	100.0 a	100.0 a	100.0 a
7	ACURON AATREX	3 QT/A 1.25 QT/A	A A	0.0 -	0.0 -	0.0 -	0.0 -	99.3 ab	100.0 a	100.0 a
8	LEXAR EZ AATREX	3.5 QT/A 0.5 QT/A	A A	0.0 -	0.0 -	0.0 -	0.0 -	98.8 ab	100.0 a	100.0 a
9	RESICORE AATREX	2.5 QT/A 2 QT/A	A A	0.0 -	0.0 -	0.0 -	0.0 -	100.0 a	100.0 a	100.0 a
10	ANTHEM MAXX CALLISTO AATREX ROUNDUP POWERMAX AMSOL	4 FL OZ/A 3 FL OZ/A 2 QT/A 32 FL OZ/A 2.5 % V/V	B B B B B		0.0 -	0.0 -	0.0 -			100.0 a
11	HELMET MAXX	3.5 QT/A	C			0.0 -	0.0 -			
12	KATAGON DESTINY HC	3.2 FL OZ/A 1 % V/V	C C			0.0 -	0.0 -			
13	KATAGON AATREX DESTINY HC	3.2 FL OZ/A 2 QT/A 1 % V/V	C C C			0.0	0.0			
LSD P=.05				.	.	.	.	1.78	.	1.37
Standard Deviation				0.00	0.00	0.00	0.00	1.22	0.00	0.94
CV				0.0	0.0	0.0	0.0	1.38	0.0	1.06
Grand Mean				0.00	0.00	0.00	0.00	88.36	88.89	89.40
Levene's F^				.	.	.	.	0.573	.	1.974
Levene's Prob(F)				.	.	.	.	0.791	.	0.079
Rank X2				.	.	.	.	.	.	.
P(Rank X2)				.	.	.	.	.	.	.
Skewness^				.	.	.	.	-1.0538*	.	-0.8618*
Kurtosis^				.	.	.	.	1.8407*	.	3.3136*
Replicate F				0.000	0.000	0.000	0.000	3.253	0.000	1.270
Replicate Prob(F)				1.0000	1.0000	1.0000	1.0000	0.0393	1.0000	0.3046
Treatment F				0.000	0.000	0.000	0.000	2951.949	0.000	4425.573
Treatment Prob(F)				1.0000	1.0000	1.0000	1.0000	0.0001	1.0000	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.  
 Untreated treatment(s) 13 excluded from analysis.  
 Could not calculate LSD (% mean diff) for columns 1,2,3,4,6,8,10,12,13,14,15,16 because error mean square = 0.  
 ^Calculated from residual.

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code	ECHCG	AMBTR	ECHCG	AMBTR	ECHCG	
Pest Name	common barnyard>	Giant ragweed	common barnyard>	Giant ragweed	common barnyard>	
Crop Type, Code						
Crop Name						
Rating Date	6/11/2021	6/29/2021	6/29/2021	7/9/2021	7/9/2021	
Part Rated	PLANT, P	PLANT, P	PLANT, P	PLANT, P	PLANT, P	
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	
Number of Subsamples	1	1	1	1	1	
Data Entry Date	10/29/2021	10/29/2021	10/29/2021	10/29/2021	10/29/2021	
Rating Timing	27 DA-A	45 DA-A	45 DA-A	55 DA-A	55 DA-A	
Days After First/Last Applic.	27, 10	45, 18	45, 18	55, 28	55, 28	
Days After Emergence	19 DE-1	37 DE-1	37 DE-1	47 DE-1	47 DE-1	
ARM Action Codes						
Number of Decimals						
Trt Treatment	8	9	10	11	12	
No. Name						
Rate						
Rate Unit						
Appl Code						
1 NONTREATED	0.0 b	0.0 e	0.0 b	0.0 f	0.0 b	
2 HELMET MAXX DURANGO DMA AMSOL	2.25 QT/A A 32 FL OZ/A A 2.5 % V/V A	100.0 a	91.3 d	100.0 a	82.5 e	100.0 a
3 ACURON	3 QT/A A	100.0 a	98.0 a	100.0 a	92.5 c	100.0 a
4 LEXAR EZ	3.5 QT/A A	100.0 a	92.5 cd	100.0 a	87.5 d	100.0 a
5 HARNESS MAX AATREX	75 FL OZ/A A 0.75 QT/A A	100.0 a	94.8 bc	100.0 a	92.5 c	100.0 a
6 RESICORE	2.5 QT/A A	100.0 a	95.0 b	100.0 a	88.8 d	100.0 a
7 ACURON AATREX	3 QT/A A 1.25 QT/A A	100.0 a	100.0 a	100.0 a	95.0 bc	100.0 a
8 LEXAR EZ AATREX	3.5 QT/A A 0.5 QT/A A	100.0 a	99.3 a	100.0 a	95.5 b	100.0 a
9 RESICORE AATREX	2.5 QT/A A 2 QT/A A	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
10 ANTHEM MAXX CALLISTO AATREX ROUNDUP POWERMAX AMSOL	4 FL OZ/A B 3 FL OZ/A B 2 QT/A B 32 FL OZ/A B 2.5 % V/V B	100.0 a	100.0 a	100.0 a	100.0 a	100.0 a
11 HELMET MAXX	3.5 QT/A C		100.0 a	100.0 a	100.0 a	100.0 a
12 KATAGON DESTINY HC	3.2 FL OZ/A C 1 % V/V C		100.0 a	100.0 a	100.0 a	100.0 a
13 KATAGON AATREX DESTINY HC	3.2 FL OZ/A C 2 QT/A C 1 % V/V C		100.0	100.0	100.0	100.0
LSD P=.05	.	2.48	.	2.74	.	
Standard Deviation	0.00	1.72	0.00	1.90	0.00	
CV	0.0	1.93	0.0	2.21	0.0	
Grand Mean	90.00	89.23	91.67	86.19	91.67	
Levene's F^	.	2.547	.	8.841	.	
Levene's Prob(F)	.	0.017*	.	0.00*	.	
Rank X2	.	.	.	.	.	
P(Rank X2)	.	.	.	.	.	
Skewness^	.	-0.6862	.	-0.2648	.	
Kurtosis^	.	3.1111*	.	-0.1216	.	
Replicate F	0.000	0.401	0.000	0.205	0.000	
Replicate Prob(F)	1.0000	0.7531	1.0000	0.8921	1.0000	
Treatment F	0.000	1080.729	0.000	849.130	0.000	
Treatment Prob(F)	1.0000	0.0001	1.0000	0.0001	1.0000	

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Untreated treatment(s) 13 excluded from analysis.  
Could not calculate LSD (% mean diff) for columns 1,2,3,4,6,8,10,12,13,14,15,16 because error mean square = 0.  
^Calculated from residual.

Trt No.	Treatment Name	Rate	Rate Unit	Appl Code	13	14	15	16	17	18
1	NONTREATED				0.0 b	0.0 b	0.0 b	0.0 b	28.375 b	16.25 -
2	HELMET MAXX DURANGO DMA AMSOL	2.25 32 2.5	QT/A FL OZ/A % V/V	A A A					62.890 a	15.88 -
3	ACURON	3	QT/A	A					68.170 a	16.30 -
4	LEXAR EZ	3.5	QT/A	A					69.070 a	16.98 -
5	HARNESS MAX AATREX	75 0.75	FL OZ/A QT/A	A A					65.605 a	16.23 -
6	RESICORE	2.5	QT/A	A					66.885 a	16.15 -
7	ACURON AATREX	3 1.25	QT/A QT/A	A A					69.243 a	16.40 -
8	LEXAR EZ AATREX	3.5 0.5	QT/A QT/A	A A					67.298 a	16.30 -
9	RESICORE AATREX	2.5 2	QT/A QT/A	A A	100.0 a	100.0 a	100.0 a	100.0 a	67.678 a	16.38 -
10	ANTHEM MAXX CALLISTO AATREX ROUNDUP POWERMAX AMSOL	4 3 2 32 2.5	FL OZ/A FL OZ/A QT/A FL OZ/A % V/V	B B B B B	100.0 a	100.0 a	100.0 a	100.0 a	64.413 a	16.65 -
11	HELMET MAXX	3.5	QT/A	C	100.0 a	100.0 a	100.0 a	100.0 a	63.698 a	16.70 -
12	KATAGON DESTINY HC	3.2 1	FL OZ/A % V/V	C C	100.0 a	100.0 a	100.0 a	100.0 a	67.358 a	16.30 -
13	KATAGON AATREX DESTINY HC	3.2 2 1	FL OZ/A QT/A % V/V	C C C	100.0	100.0	100.0	100.0	60.345	16.75
LSD P=.05					.	.	.	.	8.4509	0.661
Standard Deviation					0.00	0.00	0.00	0.00	5.8743	0.460
CV					0.0	0.0	0.0	0.0	9.27	2.81
Grand Mean					80.00	80.00	80.00	80.00	63.3900	16.375
Levene's F^					.	.	.	.	0.699	0.691
Levene's Prob(F)					.	.	.	.	0.731	0.738
Rank X2					.	.	.	.	.	.
P(Rank X2)					.	.	.	.	.	.
Skewness^					.	.	.	.	0.2859	0.9743*
Kurtosis^					.	.	.	.	0.0107	2.3528*
Replicate F					0.000	0.000	0.000	0.000	5.886	1.057
Replicate Prob(F)					1.0000	1.0000	1.0000	1.0000	0.0025	0.3804
Treatment F					0.000	0.000	0.000	0.000	14.577	1.545
Treatment Prob(F)					1.0000	1.0000	1.0000	1.0000	0.0001	0.1624

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Pest Type				
Pest Code				
Pest Name				
Crop Type, Code			C, ZEAMX	
Crop Name			Corn	
Rating Date			10/19/2021	
Part Rated			PLANT, C	
Rating Type			YIELD	
Rating Unit/Min/Max			BU, -, -	
Number of Subsamples			1	
Data Entry Date				
Rating Timing			HARVEST	
Days After First/Last Applic.			157, 130	
Days After Emergence			149 DE-1	
ARM Action Codes			TY1	
Number of Decimals			1	
Trt No.	Treatment Name	Rate	Appl Code	19
		Rate Unit		
1	NONTREATED			81.0 b
2	HELMET MAXX	2.25 QT/A	A	180.4 a
	DURANGO DMA	32 FL OZ/A	A	
	AMSOL	2.5 % V/V	A	
3	ACURON	3 QT/A	A	194.5 a
4	LEXAR EZ	3.5 QT/A	A	195.7 a
5	HARNESSE MAX	75 FL OZ/A	A	187.4 a
	AATREX	0.75 QT/A	A	
6	RESICORE	2.5 QT/A	A	191.2 a
7	ACURON	3 QT/A	A	197.3 a
	AATREX	1.25 QT/A	A	
8	LEXAR EZ	3.5 QT/A	A	192.0 a
	AATREX	0.5 QT/A	A	
9	RESICORE	2.5 QT/A	A	192.9 a
	AATREX	2 QT/A	A	
10	ANTHEM MAXX	4 FL OZ/A	B	183.0 a
	CALLISTO	3 FL OZ/A	B	
	AATREX	2 QT/A	B	
	ROUNDUP POWERMAX	32 FL OZ/A	B	
	AMSOL	2.5 % V/V	B	
11	HELMET MAXX	3.5 QT/A	C	180.9 a
12	KATAGON	3.2 FL OZ/A	C	192.2 a
	DESTINY HC	1 % V/V	C	
13	KATAGON	3.2 FL OZ/A	C	171.3
	AATREX	2 QT/A	C	
	DESTINY HC	1 % V/V	C	
LSD P=.05				24.24
Standard Deviation				16.85
CV				9.32
Grand Mean				180.71
Levene's F^				0.718
Levene's Prob(F)				0.714
Rank X2				.
P(Rank X2)				.
Skewness^				0.2262
Kurtosis^				-0.034
Replicate F				5.586
Replicate Prob(F)				0.0033
Treatment F				14.348
Treatment Prob(F)				0.0001

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# Purdue Weed Science

## One Pass Herbicide Programs in Corn Demo

Trial ID: 21S-TPAC-CORN-08	Location: TPAC	Trial Year: 2021
Protocol ID: 21S-TPAC-CORN-08	Investigator (Creator): Dr. Bill Johnson	
Project ID: FMC, Helm, Syngenta	Study Director: Brent Mansfield	
	Sponsor Contact: FMC, Helm, Syngenta	

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMBTR, Ambrosia trifida, Giant ragweed = 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

ARM Action Codes

TY1 = 2.88095238\*[17]\*(100-[18])/84.5