

# The Ohio State University

## Corn Showcase

Trial ID: 24CORNSHOW  
 Protocol ID: 24CORNSHOW Location: Western Branch F-8 Middle Trial Year: 2024  
 Study Director: Anthony Dobbels Sponsor Contact:  
 Investigator:

### Crop Description

Crop 1: C ZEAMX Zea mays	Corn	BBCH Scale: BCOR
Entry Date: Apr-24-2024	Stage Scale: BBCH	
Variety: Dekalb DKC110-10RIB		
Attributes: glyphosate, glufosinate tolerant		
Planting Date: Apr-22-2024	Seed Size: 1725 S/LB	
Depth: 1.5 IN	Planting Rate: 32097 S/A	
Rows per Plot: 4	Planting Method: PLANTD planted	
Row Spacing: 30 IN	Planting Equipment: FPP finger pickup planter	
	Seed Bed: MEDIUM medium	
Soil Temperature: 60 F	Soil Moisture: SLIDRY slightly dry	
Emergence Date: May-2-2024		

### Pest Description

Pest 1 Type: W Code: SETFA <i>Setaria faberi</i>	Entry Date: May-13-2024
Common Name: Giant foxtail	Stage Scale: BBCH
Pest 2 Type: W Code: AMBTR <i>Ambrosia trifida</i>	Entry Date: May-13-2024
Common Name: Giant ragweed	Stage Scale: BBCH
Pest 3 Type: W Code: CHEAL <i>Chenopodium album</i>	Entry Date: May-13-2024
Common Name: common lambsquarters	Stage Scale: BBCH
Pest 4 Type: W Code: AMARE <i>Amaranthus retroflexus</i>	Entry Date: May-13-2024
Common Name: Redroot pigweed	Stage Scale: BBCH
Pest 5 Type: W Code: ABUTH <i>Abutilon theophrasti</i>	Entry Date: May-13-2024
Common Name: velvetleaf	Stage Scale: BBCH
Pest 6 Type: W Code: POLPY <i>Persicaria pensylvanica</i>	Entry Date: May-13-2024
Common Name: annual smartweed	Stage Scale: BBCH
Pest 7 Type: W Code: IPOHE <i>Ipomoea hederacea</i>	Entry Date: May-24-2024
Common Name: ivy-leaf morning glory	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 FT <sup>2</sup>	Tillage Type: CONTIL conventional-till
Replications: 3	Treatments: 18 Plots: 54
Distance between Blocks: 5 FT	Study Design: RACOB� Randomized Complete Block (RCB)
Distance between 'Plot' Experimental Units: 0 FT	

Previous  
 No. Crop Year  
 1. SOYBEAN 2023

### Soil Description

Description Name: F-8 East	Texture: L loam
% Sand: 37	Soil Name: Kokomo
% Silt: 48	Fert. Level: G good
% Clay: 15	pH: 6
	CEC: 16.9

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### Application Description

	A	B	C
Date	Apr-22-2024	May-13-2024	May-24-2024
Start Time	6:00 PM	8:00 AM	8:15 AM
Stop Time	6:20 PM	8:10 AM	8:55 AM
Interval to Prev. Appl.		21 DAYS	11 DAYS
Method	SPRAY	SPRAY	SPRAY
Timing	PREEM	EPO	POST
Placement	BROSOI	BROFOL	BROFOL
Mixed/Prepared By		Dobbels	Dobbels
Applied By		Dobbels	Dobbels
Entry Date	Apr-24-2024	May-13-2024	May-24-2024
Air Temperature Start, Stop	60, 60 F	58, 58 F	66, 66 F
% Relative Humidity Start, Stop	30, 30	68, 68	87, 87
Wind Velocity+Dir. Start	8 MPH, NE	5 MPH, N	4 MPH, NNE
Wind Velocity+Dir. Stop	8 MPH, NE	5 MPH, N	4 MPH, NNE
Wind Velocity+Dir. Max	10 MPH, NE	6 MPH, N	4 MPH, NNE
Wet Leaves (Y/N)	N, no	N, no	Y, yes
Soil Temperature	60 F	58 F	62 F
Soil Temperature Depth	6 IN	6 IN	6 IN
Soil Moisture	SLIDRY	SLIDRY	SLIDRY
Soil Surface Condition	MED	MEDIUM	MEDIUM
% Ground Cover	0	70	50
% Cloud Cover	10	0	100
First Moisture Occurred On	Apr-23-2024	May-14-2024	May-26-2024
Time to First Moisture	23.0 HR	22.0 HR	2.0 DAY
Amount of First Moisture	0.15 IN	0.1 IN	0.09 IN
Moisture 1 Week Before Appl.	0.25 IN	0.64 IN	0.88 IN
Moisture 6 Hours After Appl.	0 IN	0 IN	0 IN
Moisture 24 Hours After Appl.	0.15 IN	0.1 IN	0 IN
Moisture 1 Week After Appl.	0.65 IN	1.91 IN	0.68 IN
Problems with Application?	N, no	N, no	N, no

### Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	ZEAMX, BCOR	ZEAMX, BCOR	ZEAMX, BCOR
Days after Emergence	-10	11	22
Stage Majority, Percent		12, 100	15, 100
Height Average		5 IN	15 IN
Height Minimum, Maximum		4, 6	14, 16

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**Pest Stage At Each Application**

	A	B	C
Pest 1 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Stage Majority, Percent		11, 90	12, -
Stage Minimum, Percent		11, 90	12, -
Stage Maximum, Percent		12, 10	15, -
Height Average		1 IN	3 IN
Height Minimum, Maximum		0.5, 1	1, 4
Relative Density	HIGH		
Density Average	21.5 m2		
Density Minimum, Maximum	0, 192		
Pest 2 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Stage Majority, Percent		12, 60	16, -
Stage Minimum, Percent		11, 10	14, -
Stage Maximum, Percent		16, 10	18, -
Diameter Average		3 IN	
Diameter Minimum, Maximum		2, 4	
Height Average		3 IN	6 IN
Height Minimum, Maximum		2, 4	3, 8
Relative Density	MEDIUM		
Density Average	9.75 m2		
Density Minimum, Maximum	0, 104		
Pest 3 Code, Type, Scale	CHEAL, W, BBCH	CHEAL, W, BBCH	CHEAL, W, BBCH
Stage Majority, Percent		14, 60	16, -
Stage Minimum, Percent		12, 20	14, -
Stage Maximum, Percent		16, 20	18, -
Height Average		0.5 IN	1 IN
Height Minimum, Maximum		0.5, 1	0.5, 1
Pest 4 Code, Type, Scale	AMARE, W, BBCH	AMARE, W, BBCH	AMARE, W, BBCH
Stage Majority, Percent		12, 80	
Stage Minimum, Percent		11, 10	
Stage Maximum, Percent		12, 80	
Height Average		0.5 IN	
Height Minimum, Maximum		0.25, 0.5	
Pest 5 Code, Type, Scale	ABUTH, W, BBCH	ABUTH, W, BBCH	ABUTH, W, BBCH
Stage Majority, Percent		12, 80	13, -
Stage Minimum, Percent		11, 10	12, -
Stage Maximum, Percent		12, 80	13, -
Height Average		0.5 IN	3 IN
Height Minimum, Maximum		0.5, 1	2, 3
Pest 6 Code, Type, Scale	POLPY, W, BBCH	POLPY, W, BBCH	POLPY, W, BBCH
Stage Majority, Percent		12, 80	12, -
Stage Minimum, Percent		11, 10	12, -
Stage Maximum, Percent		12, 80	13, -
Height Average		0.5 IN	1 IN
Height Minimum, Maximum		0.25, 0.5	1, 2
Pest 7 Code, Type, Scale	IPOHE, W, BBCH	IPOHE, W, BBCH	IPOHE, W, BBCH
Stage Majority, Percent			12, -
Stage Minimum, Percent			11, -
Stage Maximum, Percent			12, -
Height Average			1 IN
Height Minimum, Maximum			1, 2
Relative Density	MEDIUM		
Density Average	0.75 m2		
Density Minimum, Maximum	0, 8		

Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Other Rate	Other Unit	Appl Code	Appl Timing	Rep 1	Rep 2	Rep 3	Notes
1	Acuron	3.44	LBA/GAL	ZC	2.58 lb ai/a		3 qt/a		A	PRE	101	206	316	
	Diflexx	4	LBA/GAL	SC	0.25 lb ai/a		8 oz/a		C	POST				
2	Storen	3.217	LBA/GAL	ZC	1.93 lb ai/a		2.4 qt/a		A	PRE	102	212	309	
	Atrazine	4	LBA/GAL	F	0.75 lb ai/a		0.75 qt/a		A	PRE				
	Diflexx	4	LBA/GAL	SC	0.25 lb ai/a		8 oz/a		C	POST				
3	Resicore	3.29	LBA/GAL	SE	2.06 lb ai/a		2.5 qt/a		A	PRE	103	202	315	
	Atrazine	4	LBA/GAL	F	0.75 lb ai/a		0.75 qt/a		A	PRE				
	Diflexx	4	LBA/GAL	SC	0.25 lb ai/a		8 oz/a		C	POST				
4	Maverick	2.04	LBA/GAL	SC	0.51 lb ai/a		32 oz/a		A	PRE	104	207	311	
	Atrazine	4	LBA/GAL	F	0.75 lb ai/a		0.75 qt/a		A	PRE				
	Diflexx	4	LBA/GAL	SC	0.25 lb ai/a		8 oz/a		C	POST				
5	Trivolt	3.65	LBA/GAL	SC	0.57 lb ai/a		20 oz/a		A	PRE	105	201	305	
	Atrazine	4	LBA/GAL	F	0.75 lb ai/a		0.75 qt/a		A	PRE				

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	Diflexx	4 LBA/GAL		SC	0.25 lb ai/a		8 oz/a		C	POST				
6	Restraint	6.498 LBA/GAL		EC	1.83 lb ai/a		36 oz/a		A	pre	106	217	302	
	Atrazine	4 LBA/GAL		F	1 lb ai/a		1 qt/a		A	pre				
	Shieldex	3.33 LBA/GAL		SC	0.035 lb ai/a		1.35 oz/a		C	POST				
	Atrazine	4 LBA/GAL		F	0.5 lb ai/a		16 oz/a		C	POST				
	Roundup Powermax 3	4.79 LBAE/GAL		SL	1.12 lb ae/a		30 oz/a		C	POST				
	COC	100 %		SL	1 % v/v		1 % v/v		C	POST				
	AMSOL	100 %		L	2.5 % v/v		2.5 % v/v		C	POST				
7	Restraint	6.498 LBA/GAL		EC	1.83 lb ai/a		36 oz/a		A	PRE	107	203	312	
	Atrazine	4 LBA/GAL		F	1 lb ai/a		1 qt/a		A	PRE				
	Shieldex	3.33 LBA/GAL		SC	0.035 lb ai/a		1.35 oz/a		C	POST				
	Atrazine	4 LBA/GAL		F	0.5 lb ai/a		16 oz/a		C	POST				
	Liberty	2.34 LBA/GAL		SL	0.4 lb ai/a		22 oz/a		C	POST				
	COC	100 %		SL	1 % v/v		1 % v/v		C	POST				
	AMSOL	100 %		L	2.5 % v/v		2.5 % v/v		C	POST				
8	Intrava DX	3.27 LBA/GAL		L	600 g ai/ha		21 oz/a		A	PRE	108	209	303	
	Moccasin II Plus	7.64 LBA/GAL		EC	1420 g ai/ha		1.33 pt/a		A	PRE				
	Intermoc	3.57 LBA/GAL		SE	2000 g ai/ha		64 oz/a		C	POST				
	AMSOL	100 %		L	6 % v/v		3.6 qt/a		C	POST				
9	Intrava DX	3.27 LBA/GAL		L	460 g ai/ha		16 oz/a		A	PRE	109	205	313	
	Motif	4 LBA/GAL		SC	158 g ai/ha		4.5 oz/a		A	PRE				
	Intermoc	3.57 LBA/GAL		SE	2000 g ai/ha		64 oz/a		C	POST				
	AMSOL	100 %		L	6 % v/v		3.6 qt/a		C	POST				
10	Intrava DX	3.27 LBA/GAL		L	460 g ai/ha		16 oz/a		A	PRE	110	211	318	
	Coyote	3.67 LBA/GAL		SE	2470 g ai/ha		2.4 qt/a		A	PRE				
	Intermoc	3.57 LBA/GAL		SE	2000 g ai/ha		64 oz/a		C	POST				
	AMSOL	100 %		L	6 % v/v		3.6 qt/a		C	POST				
11	Anthem Maxx	4.3 LB/GAL		SC	0.134 lb ai/a		4 oz/a		A	PRE	111	208	307	
	Callisto	4 LB/GAL		SC	0.188 lb ai/a		6 oz/a		A	PRE				
	Atrazine	4 LBA/GAL		F	1.5 lb ai/a		1.5 qt/a		A	PRE				
	Roundup Powermax 3	4.79 LBAE/GAL		SL	1.01 lb ae/a		27 oz/a		C	POST				
	Status	56 %AW/W		WG	0.175 lb ai/a		5 oz/a		C	POST				
	AMSOL	100 %		L	2.5 % v/v		48 oz/a		C	POST				
12	Anthem Maxx	4.3 LB/GAL		SC	0.134 lb ai/a		4 oz/a		B	EPO	112	213	314	
	Callisto	4 LB/GAL		SC	0.094 lb ai/a		3 oz/a		B	EPO				
	Atrazine	4 LBA/GAL		F	1.5 lb ai/a		1.5 qt/a		B	EPO				
	Roundup Powermax 3	4.79 LBAE/GAL		SL	1.01 lb ae/a		27 oz/a		B	EPO				
	AMSOL	100 %		L	2.5 % v/v		48 oz/a		B	EPO				
13	Surtain	1.63 LBA/GAL		ZC	0.178 lb ai/a		14 oz/a		A	PRE	113	214	317	
	BAS 101005H	1.76 LBA/GAL		SL	370 g ai/ha		24 oz/a		C	POST				
	Zidua SC	4.17 LBA/GAL		SC	91 g ai/ha		2.5 oz/a		C	POST				
	Atrazine	4 LBA/GAL		F	560 g ai/ha		16 oz/a		C	POST				
	Roundup Powermax 3	4.79 LBAE/GAL		SL	1260 g ai/ha		30 oz/a		C	POST				
	AMSOL	100 %		L	6 % v/v		115 oz/a		C	POST				
14	Atrazine	4 LBA/GAL		F	1.5 lb ai/a		1.5 qt/a		A	PRE	114	210	308	
	Surmise 5	4.6 LBA/GAL		SL	660 g ai/ha		16.4 oz/a		C	POST				
	Callisto	4 LB/GAL		SC	0.094 lb ai/a		3 oz/a		C	POST				
	AMSOL	100 %		L	6 % v/v		115 oz/a		C	POST				
15	Resicore	3.29 LBA/GAL		SE	2.06 lb ai/a		2.5 qt/a		A	PRE	115	218	301	
	Atrazine	4 LBA/GAL		F	1 lb ai/a		1 qt/a		A	PRE				
	Roundup Powermax 3	4.79 LBAE/GAL		SL	1.12 lb ae/a		30 oz/a		C	POST				
	AMSOL	100 %		L	2.5 % v/v		1.5 qt/a		C	POST				
16	Keystone NXT	5.6 LBA/GAL		L	2.1 lb ai/a		1.5 qt/a		A	PRE	116	204	306	
	Kyro	3.073 LBA/GAL		L	1.08 lb ai/a		45 oz/a		C	POST				
	Roundup Powermax 3	4.79 LBAE/GAL		SL	1.12 lb ae/a		30 oz/a		C	POST				
	AMSOL	100 %		L	2.5 % v/v		1.5 qt/a		C	POST				
17	SURESTART II	4.25 LBA/GAL		L	1.6 lb ai/a		3 pt/a		A	PRE	117	215	304	

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	Atrazine	4	LBA/GAL	F	1.5	lb ai/a	1.5	qt/a		A	PRE				
	Roundup Powermax 3	4.79	LBAE/GAL	SL	1.12	lb ae/a	30	oz/a		C	POST				
	AMSOL	100 %		L	2.5	% v/v	1.5	qt/a		C	POST				
18	Keystone NXT	5.67	LBA/GAL	L	2.13	lb ai/a	1.5	qt/a		A	PRE	118	216	310	
	Resicore	3.29	LBA/GAL	SE	1.03	lb ai/a	1.25	qt/a		C	POST				
	Roundup Powermax 3	4.79	LBAE/GAL	SL	1.12	lb ae/a	30	oz/a		C	POST				
	AMSOL	100 %		L	2.5	% v/v	1.5	qt/a		C	POST				

Sort Order: Replicate 1