

# The Ohio State University

## New COC based StrikeLock for weed control with Powermax 3

Trial ID: 24WINADJ  
 Protocol ID: 24-A-B-ARAS-GLYPH-FORM-1 Location: Trial Year: 2024  
 Study Director: Sponsor Contact:  
 Investigator:

**Crop Description**

Crop 1: C	GLXMA Glycine max	Soybean	BBCH Scale: BSOY
	Entry Date: Jun-5-2024	Stage Scale: BBCH	
	Variety: P34A98E	Maturity Group: 3.4	
	Attributes: RR,LL,2,4-D tolerant		
	Seed Lot No: W3WOO13041-LIT-1023	Seed Source: Pioneer	
% Germination: 90		1000 Seed Weight: 196.537 g	
Seed Shape: ROUND		Seed Size: 2310 S/LB	
		Seed Treatment Products: LumiTreo, Lumiderm, llevo HL	
Planting Date: May-2-2024		Planting Rate: 155000 S/A	
Depth: 1 IN			
Rows per Plot: 8		Planting Method: SEEDED	seeded
Row Spacing: 15 IN		Planting Equipment: FE	field equipment
		Seed Bed: MEDIUM	medium
Soil Temperature: 58 F		Soil Moisture: SLIDRY	slightly dry
Ground Cover Planting: 0			
Emergence Date: May-14-2024			

**Pest Description**

Pest 1 Type: W	Code: SETFA	Setaria faberi	Entry Date: Jun-5-2024
	Common Name: Giant foxtail		Stage Scale: BBCH
Pest 2 Type: W	Code: SETPU	Setaria pumila	Entry Date: Jun-5-2024
	Common Name: yellow foxtail		Stage Scale: BBCH
Pest 3 Type: W	Code: AMBTR	Ambrosia trifida	Entry Date: Jun-5-2024
	Common Name: Giant ragweed		Stage Scale: BBCH
Pest 4 Type: W	Code: CHEAL	Chenopodium album	Entry Date: Jun-5-2024
	Common Name: common lambsquarters		Stage Scale: BBCH
Pest 5 Type: W	Code: SIDSP	Sida spinosa	Entry Date: Jun-5-2024
	Common Name: Prickly sida		Stage Scale: BBCH
Pest 6 Type: W	Code: HIBTR	Hibiscus trionum	Entry Date: Jun-5-2024
	Common Name: Venice mallow		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: 10	Plots: 30
Distance between Blocks: 1 FT	Study Design: RACOBL	Randomized Complete Block (RCB)
Distance between 'Plot' Experimental Units: 0.5 FT		

Previous  
 No. Crop Year  
 1. CORN 2023

**Soil Description**

Description Name: F-7 Middle	Texture: L	loam
% Sand: 35	% OM: 2.1	
% Silt: 46	Soil Name: Crosby	
% Clay: 19	Fert. Level: G	good
pH: 6.4	CEC: 10.3	

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### Application Description

	A
Date	Jun-4-2024
Start Time	9:00 AM
Stop Time	9:15 AM
Method	SPRAY
Timing	POST
Placement	BROFOL
Mixed/Prepared By	Dobbels
Applied By	McCormick
Entry Date	Jun-5-2024
Air Temperature Start, Stop	73, 73 F
% Relative Humidity Start, Stop	83, 83
Wind Velocity+Dir. Start	5 MPH, E
Wind Velocity+Dir. Stop	5 MPH, E
Wind Velocity+Dir. Max	6 MPH, E
Wet Leaves (Y/N)	Y, yes
Soil Temperature	67 F
Soil Temperature Depth	6 IN
Soil Moisture	DRY
Soil Surface Condition	MEDIUM
% Ground Cover	100
% Cloud Cover	50
First Moisture Occurred On	Jun-4-2024
Time to First Moisture	11.5 HR
Amount of First Moisture	0.24 IN
Moisture 1 Week Before Appl.	0.57 IN
Moisture 6 Hours After Appl.	0 IN
Moisture 24 Hours After Appl.	0.24 IN
Problems with Application?	N, no

### Crop Stage At Each Application

	A
Crop 1 Code, BBCH Scale	GLXMA, BSOY
Days after Emergence	21
Stage Majority, Percent	14, 80
Stage Minimum, Percent	13, 20
Stage Maximum, Percent	14, 80
Height Average	4 IN
Height Minimum, Maximum	4, 5

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### Pest Stage At Each Application

Pest 1 Code, Type, Scale	SETFA, W, BBCH
Stage Majority, Percent	14, 80
Stage Minimum, Percent	12, 10
Stage Maximum, Percent	14, 80
Height Average	8 IN
Height Minimum, Maximum	6, 8
Relative Density	HIGH
Density Average	202.16 m2
Density Minimum, Maximum	116, 344
Pest 2 Code, Type, Scale	SETPU, W, BBCH
Stage Majority, Percent	22, 60
Stage Minimum, Percent	21, 10
Stage Maximum, Percent	23, 10
Height Average	4 IN
Height Minimum, Maximum	3, 5
Relative Density	HIGH
Density Average	321.86 m2
Density Minimum, Maximum	248, 448
Pest 3 Code, Type, Scale	AMBTR, W, BBCH
Stage Majority, Percent	19, 80
Stage Minimum, Percent	14, 10
Stage Maximum, Percent	19, 80
Height Average	10 IN
Height Minimum, Maximum	4, 10
Relative Density	MEDIUM
Density Average	21.05 m2
Density Minimum, Maximum	12, 60
Pest 4 Code, Type, Scale	CHEAL, W, BBCH
Stage Majority, Percent	16, 80
Stage Minimum, Percent	14, 10
Stage Maximum, Percent	18, 10
Height Average	2 IN
Height Minimum, Maximum	0.5, 2
Relative Density	MEDIUM
Density Average	61 m2
Density Minimum, Maximum	44, 104
Pest 5 Code, Type, Scale	SIDSP, W, BBCH
Stage Majority, Percent	14, 80
Stage Minimum, Percent	12, 10
Stage Maximum, Percent	16, 10
Height Average	1 IN
Height Minimum, Maximum	1, 2
Relative Density	MEDIUM
Density Average	22.61 m2
Density Minimum, Maximum	0, 56
Pest 6 Code, Type, Scale	HIBTR, W, BBCH
Stage Majority, Percent	14, 80
Stage Minimum, Percent	12, 10
Stage Maximum, Percent	16, 10
Height Average	2 IN
Height Minimum, Maximum	1, 3

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Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Rate Unit	Appl Code	Rep 1	Rep 2	Rep 3	Notes
1	UNTREATED CHECK						A	101	202	309	
2	Roundup Powermax 3	4.79	LBAE/GAL	SL	15 fl oz/a	A		102	207	307	
3	Roundup Powermax 3 AG23143	4.79 100 %	LBAE/GAL	SL L	15 fl oz/a 8 fl oz/a	A		103	204	310	
4	Roundup Powermax 3 AG23187	4.79 100 %	LBAE/GAL	SL L	15 fl oz/a 8 fl oz/a	A		104	201	303	
5	Roundup Powermax 3 AG23143	4.79 100 %	LBAE/GAL	SL L	15 fl oz/a 12 fl oz/a	A		105	210	308	
6	Roundup Powermax 3 AG23187	4.79 100 %	LBAE/GAL	SL L	15 fl oz/a 12 fl oz/a	A		106	209	305	
7	Roundup Powermax 3 SUPERB HC INTERLOCK	4.79 100 % 100 %	LBAE/GAL	SL L L	15 fl oz/a 0.5 % v/v 4 fl oz/a	A		107	208	302	
8	Roundup Powermax 3 STRIKELOCK	4.79 100 %	LBAE/GAL	SL L	15 fl oz/a 12 fl oz/a	A		108	206	304	
9	Roundup Powermax 3 VALCHECK COC	4.79 100 %	LBAE/GAL	SL L	15 fl oz/a 1 % v/v	A		109	205	306	
10	Roundup Powermax 3 AMSOL	4.79 100 %	LBAE/GAL	SL L	15 fl oz/a 2.5 % v/v	A		110	203	301	

Sort Order: Replicate 1