

# The Ohio State University

## Soybean Showcase Residual Weed Control

Trial ID: 21SOYRESDV      Location:      Trial Year: 2021  
 Protocol ID: 21soyres      Investigator (Creator): Dr. Mark M. Loux  
 Project ID:      Study Director:  
                                  Sponsor Contact:

**Trial Status:** E      established  
**ARM Trial Created On:** May-3-2021  
**Initiation Date:** Apr-26-2021

### Trial Location

**Address (Location):** 5617 Dolly Varden Road  
**City:** South Charleston      **Country:** USA United States  
**State/Prov.:** Ohio  
**Postal Code:** 45368

**Latitude of LL Corner °:** 39.83443      N  
**Longitude of LL Corner °:** -83.70059      W  
**Altitude of LL Corner:** 1051.00 FT

**Conducted Under GLP:** No  
**Conducted Under GEP:** No

### Crop Description

**Crop 1:** C      GLXMA Glycine max      Soybean      **BBCH Scale:** BSOY  
**Entry Date:** May-3-2021      **Stage Scale:** BBCH  
**Variety:** AG38XF1  
**Attributes:** Glyphosate, Glufosinate, Dicamba - R  
**Seed Size:** 2660 S/LB  
**Planting Date:** Apr-26-2021      **Planting Rate:** 160000      S/A  
**Depth:** 1.5      IN  
**Rows per Plot:** 15      **Planting Method:** DRILLE      drilled  
**Row Spacing:** 7.5      IN      **Planting Equipment:** DD      disc drill  
**Soil Temperature:** 65      F      **Seed Bed:** MEDIUM      medium  
**Emergence Date:** May-24-2021      **Soil Moisture:** NORMAL      normal, adequate

### Pest Description

**Pest 1 Type:** W      **Code:** AMATA Amaranthus x tamariscinus      **Entry Date:** Jul-28-2021  
**Common Name:** Common waterhemp      **Stage Scale:** BBCH

### Site and Design

**Treated Plot Width:** 6.67 FT      **Site Type:** FIELD      field  
**Treated Plot Length:** 30 FT      **Experimental Unit:** 1      PLOT      plot  
**Treated Plot Area:** 200.1 FT2      **Treatments:** 12      **Tillage Type:** NOTILL      no-till  
**Replications:** 3      **Study Design:** RACOB      Randomized Complete Block (RCB)

### Previous

**No. Crop Year**  
 1. CORN 2020

### Soil Description

**Description Name:** DV 3  
**% Sand:** 77      **% OM:** 1.5      **Texture:** LS loamy sand  
**% Silt:** 18      **pH:** 6.5      **Soil Name:** Ockley  
**% Clay:** 5      **CEC:** 8.4      **Fert. Level:** G good  
**Soil Drainage:** G      good

### Analyzed By:

Spectrum Analytic, Washington Court House, OH

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### Application Description

**A**  
 Application Date Apr-26-2021  
 Appl. Start Time 7:15 PM  
 Appl. Stop Time 7:45 PM  
 Application Method SPRAY  
 Application Timing PRE  
 Application Placement BROSOI  
 Applied By Dobbels  
 Appl. Entry Date May-3-2021  
 Air Temperature Start, Stop 70 70 F  
 % Relative Humidity Start, Stop 27 27  
 Wind Velocity+Dir. Start 3 MPH SSE  
 Wind Velocity+Dir. Stop 3 MPH SSE  
 Wind Velocity+Dir. Max 3 MPH  
 Wet Leaves (Y/N) N no  
 Soil Temperature 65 F  
 Soil Moisture NORMAL  
 Soil Surface Condition MEDIUM  
 % Cloud Cover 0  
 Next Moisture Occurred On Apr-28-2021  
 Time to Next Moisture 2.0 DAY  
 Moisture 6 Hours after Appl. 0 IN  
 Moisture 1 Week after Appl. 1.8 IN

### Crop Stage At Each Application

**A**  
 Crop 1 Code, BBCH Scale GLXMA BSOY  
 Days after Emergence -28

### Pest Stage At Each Application

**A**  
 Pest 1 Code, Type, Scale AMATA W BBCH  
 Density Average 8 PLA/m2  
 Density Minimum, Maximum 0 25

### Application Equipment

**A**  
 Appl. Equipment 6 Foot TT  
 Equipment Type BACCAI  
 Operation Pressure 48 PSI  
 Nozzle Model 110015  
 Nozzle Type TT  
 Nozzle Spacing 18 IN  
 Boom Length 6.67 FT  
 Boom Height 20 IN  
 Ground Speed 3 MPH  
 Carrier WATER  
 Application Amount 15 GAL/AC  
 Mix Size 1.0 L  
 Propellant COMCO2

### Notes

Context	Date	By	Notes
STATUS	Mar-31-2021	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	May-3-2021	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Initiation Date entered.

Pest Type	W Weed	W Weed
Pest Code	AMATA	AMATA
Pest Name	Common waterhemp	Common waterhemp
Rating Date	Jun-11-2021	Jun-21-2021
Rating Type	CONTRO	CONTRO
Rating Unit/Min/Max	% 0 100	% 0 100
Number of Subsamples	1	1
Data Entry Date	Jun-15-2021	Jun-30-2021
Days After First/Last Applic.	46 46	56 56
Trt-Eval Interval	46 DA-A	56 DA-A
Days After Emergence	18 DE-1	28 DE-1
Number of Decimals	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	1* dAA	2* dAA
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1	Boundary	1.8 pt/a	A	89 -	40 b
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Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	1* dAA	2* dAA
2	BroadAxe	25 oz/a		A	84 -	62 ab
3	A23372	4.2 pt/a		A	95 -	74 ab
4	Zidua Pro	6 oz/a		A	98 -	53 ab
5	Sonic	6.45 oz/a		A	79 -	72 ab
6	Authority Supreme	8 oz/a		A	94 -	78 ab
7	Authority Edge	9 oz/a		A	66 -	69 ab
8	Fierce EZ	6 oz/a		A	88 -	73 ab
9	Fierce MTZ	16 oz/a		A	47 -	76 ab
10	Fierce XLT	4.5 oz/a		A	98 -	89 a
11	Panther Pro	15 oz/a		A	67 -	57 ab
12	Warrant Ultra	50 oz/a		A	95 -	76 ab
LSD P=.05					33.0 - 43.1	22.0 - 27.0
Standard Deviation					16.7t	9.3t
CV					24.52t	16.54t
Levene's F^					0.255	0.556
Levene's Prob(F)					0.989	0.845
Skewness^					-0.2808	0.2011
Kurtosis^					-0.6969	0.1657
Replicate F					2.525	1.977
Replicate Prob(F)					0.1030	0.1623
Treatment F					1.601	2.374
Treatment Prob(F)					0.1673	0.0406

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

AMATA, Amaranthus x tamariscinus, Common waterhemp = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent