

# The Ohio State University

## Glufosinate Surfactant increased Efficacy Trial

Trial ID: 20LIBSURF Location: Western Branch F-7 Trial Year: 2020  
 Protocol ID: 20LIBSURF Investigator: Dr. Mark M. Loux  
 Project ID: Study Director: Anthony Dobbels  
 Sponsor Contact: Jerry , GarrCo

### General Trial Information

**Study Director:** Anthony Dobbels  
**Investigator:** Dr. Mark M. Loux

**Trial Status:** E established

**ARM Trial Created On:** Mar-25-2020

**Initiation Date:** May-13-2020

### Trial Location

**Address (Location):** 7721 South Charleston Pike  
**City:** South Charleston **Country:** USA United States  
**State/Prov.:** Ohio  
**Postal Code:** 45368

**Latitude of LL Corner °:** 39.86079 N  
**Longitude of LL Corner °:** -83.67043 W  
**Altitude of LL Corner:** 1092.00 FT

**Conducted Under GLP:** No

**Conducted Under GEP:** No

### Contacts

**Study Director:** Anthony Dobbels

**Investigator:** Dr. Mark M. Loux

### Crop Description

**Crop 1:** C GLXMA Glycine max Soybean **BBCH Scale:** BSOY  
**Entry Date:** May-14-2020 **Stage Scale:** BBCH  
**Variety:** Seed Consultants SC7370E  
**Attributes:** 2,4-D Choline, Glyphosate, Glufosinate Tol  
**Planting Date:** May-13-2020 **Planting Rate:** 160000 S/A  
**Depth:** 2 IN  
**Rows per Plot:** 8 **Planting Method:** PLANTD planted  
**Row Spacing:** 15 IN **Planting Equipment:** FE field equipment  
**Seed Bed:** MEDIUM medium  
**Soil Temperature:** 62 F **Soil Moisture:** NORMAL normal, adequate  
**Emergence Date:** May-25-2020

### Pest Description

**Pest 1 Type:** W **Code:** SETFA *Setaria faberi*  
**Common Name:** foxtail, giant **Entry Date:** May-14-2020

**Pest 2 Type:** W **Code:** ECHCG *Echinochloa crus-galli*  
**Common Name:** barnyardgrass **Entry Date:** Jun-16-2020

**Pest 3 Type:** W **Code:** AMBTR *Ambrosia trifida*  
**Common Name:** ragweed, giant **Entry Date:** Jun-16-2020

**Pest 4 Type:** W **Code:** POLPY *Polygonum pensylvanicum*  
**Common Name:** smartweed, Pennsylvania **Entry Date:** Jun-16-2020

**Pest 5 Type:** W **Code:** CHEAL *Chenopodium album*  
**Common Name:** lambsquarters, common **Entry Date:** Jun-16-2020

**Pest 6 Type:** W **Code:** HIBTR *Hibiscus trionum*  
**Common Name:** mallow, Venice **Entry Date:** Jun-16-2020

**Pest 7 Type:** W **Code:** AMARE *Amaranthus retroflexus*  
**Common Name:** pigweed, redroot **Entry Date:** Jun-16-2020

**Pest 8 Type:** W **Code:** ABUTH *Abutilon theophrasti*  
**Common Name:** velvetleaf **Entry Date:** Jun-16-2020

### Site and Design

**Treated Plot Width:** 6 FT **Site Type:** FIELD field  
**Treated Plot Length:** 30 FT **Experimental Unit:** 1 PLOT plot  
**Treated Plot Area:** 180 FT<sup>2</sup> **Treatments:** 20 **Tillage Type:** CONTIL conventional-till  
**Replications:** 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

### Previous

**No. Crop Year**  
 1. SOYBEAN 2019

# The Ohio State University

## Glufosinate Surfactant increased Efficacy Trial

Trial ID: 20LIBSURF      Location: Western Branch F-7      Trial Year: 2020  
 Protocol ID: 20LIBSURF      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director: Anthony Dobbels  
                                  Sponsor Contact: Jerry , GarrCo

### Soil Description

**Description Name:** F-7 East  
**% Sand:** 37      **% OM:** 2.8      **Texture:** SICL silty clay loam  
**% Silt:** 48      **pH:** 5.7      **Soil Name:** Crosby  
**% Clay:** 15      **CEC:** 11.8      **Fert. Level:** G good  
**Soil Drainage:** G      good

### Application Description

**A**

**Application Date** Jun-16-2020  
**Appl. Start Time** 7:54 AM  
**Appl. Stop Time** 8:30 AM  
**Application Method** SPRAY  
**Application Timing** POST  
**Application Placement** BROFOL  
**Applied By** Dobbels  
**Appl. Entry Date** Jun-16-2020  
**Air Temperature Start, Stop** 68 68 F  
**% Relative Humidity Start, Stop** 71 71  
**Wind Velocity+Dir. Start** 3 MPH E  
**Wind Velocity+Dir. Stop** 3 MPH E  
**Wind Velocity+Dir. Max** 3 MPH E  
**Wet Leaves (Y/N)** N no  
**Soil Temperature** 64 F  
**Soil Moisture** DRY  
**Soil Surface Condition** MEDIUM  
**% Cloud Cover** 10  
**Next Moisture Occurred On** Jun-18-2020  
**Time to Next Moisture** 2 DAY  
**Moisture 6 Hours after Appl.** 0 IN  
**Moisture 1 Week after Appl.** 0.88 IN

### Crop Stage At Each Application

**A**

**Crop 1 Code, BBCH Scale** GLXMA BSOY  
**Days after Emergence** 22  
**Stage Majority, Percent** 12 100  
**Height Average** 6 IN

# The Ohio State University

## Glufosinate Surfactant increased Efficacy Trial

Trial ID: 20LIBSURF      Location: Western Branch F-7      Trial Year: 2020  
 Protocol ID: 20LIBSURF      Investigator: Dr. Mark M. Loux  
 Project ID:      Study Director: Anthony Dobbels  
                                  Sponsor Contact: Jerry , GarrCo

### Pest Stage At Each Application

	A
<b>Pest 1 Code, Type, Scale</b>	SETFA W
Stage Majority, Percent	14 80
Stage Minimum, Percent	12 10
Stage Maximum, Percent	16 10
Height Average	3 IN
Height Minimum, Maximum	1 6
Density Average	172 PLA/m2
Density Min, Max	129 228
<b>Pest 2 Code, Type, Scale</b>	ECHCG W
Stage Majority, Percent	14 80
Stage Minimum, Percent	12 10
Stage Maximum, Percent	16 10
Height Average	3 IN
Height Minimum, Maximum	1 6
Density Average	21 PLA/m2
Density Min, Max	6 48
<b>Pest 3 Code, Type, Scale</b>	AMBTR W
Stage Majority, Percent	14 80
Stage Minimum, Percent	12 10
Stage Maximum, Percent	16 10
Height Average	4 IN
Height Minimum, Maximum	1 8
Density Average	5 PLA/m2
Density Min, Max	3 9
<b>Pest 4 Code, Type, Scale</b>	POLPY W
Stage Majority, Percent	16 80
Stage Minimum, Percent	14 10
Stage Maximum, Percent	18 10
Height Average	3 IN
Height Minimum, Maximum	2 7
<b>Pest 5 Code, Type, Scale</b>	CHEAL W
Stage Majority, Percent	17 80
Stage Minimum, Percent	14 10
Stage Maximum, Percent	21 10
Height Average	3 IN
Height Minimum, Maximum	1 4
Density Average	21 PLA/m2
Density Min, Max	3 54
<b>Pest 6 Code, Type, Scale</b>	HIBTR W
Stage Majority, Percent	13 80
Stage Minimum, Percent	12 10
Stage Maximum, Percent	14 10
Height Average	3 IN
Height Minimum, Maximum	1 4
<b>Pest 7 Code, Type, Scale</b>	AMARE W
Stage Majority, Percent	13 80
Stage Minimum, Percent	12 10
Stage Maximum, Percent	14 10
Height Average	2 IN
Height Minimum, Maximum	1 3
Density Average	9 PLA/m2
Density Min, Max	3 12
<b>Pest 8 Code, Type, Scale</b>	ABUTH W
Stage Majority, Percent	13 80
Stage Minimum, Percent	12 10
Stage Maximum, Percent	14 10
Height Average	2 IN
Height Minimum, Maximum	1 4
Density Average	2 PLA/m2
Density Min, Max	0 6

# The Ohio State University

## Glufosinate Surfactant increased Efficacy Trial

Trial ID: 20LIBSURF Location: Western Branch F-7 Trial Year: 2020  
 Protocol ID: 20LIBSURF Investigator: Dr. Mark M. Loux  
 Project ID: Study Director: Anthony Dobbels  
 Sponsor Contact: Jerry , GarrCo

### Application Equipment

**A**  
**Appl. Equipment** 6 FT  
**Equipment Type** BACCAI  
**Operation Pressure** 44 PSI  
**Nozzle Type** XR  
**Nozzle Size** 8002  
**Nozzle Spacing** 18 IN  
**Boom Length** 6.67 FT  
**Boom Height** 20 IN  
**Ground Speed** 3 MPH  
**Carrier** WATER  
**Application Amount** 20 GAL/AC  
**Mix Size** 2 L  
**Propellant** COMCO2

Context	Date	By	Notes
STATUS	Mar-25-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Mar-27-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	Mar-27-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.
STATUS	May-14-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.
STATUS	Jul-13-2020	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Initiation Date entered.

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	SETFA	ECHCG	AMBTR	CHEAL	AMARE
Pest Scientific Name	Setaria faberi	Echinochloa cr>	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>
Pest Name	Giant foxtail	Common barnyar>	Giant common lambsqu>		Redroot pigweed
Rating Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Days After First/Last Applic.	14 14	14 14	14 14	14 14	14 14
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	48 DP-1	48 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence	36 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	1*	2*	3*	4*	5*
1	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	91 ab	100 -	87 -	89 -
2	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	95 a	97 -	90 -	93 -
	N PAK-AMS	2.5 % v/v	1.5 qt/a		A					
3	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	94 a	100 -	87 -	99 -
	Condition	2 qt/100 gal	0.4 qt/a		A					
4	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	85 abc	97 -	75 -	84 -
	Condition	2 qt/100 gal	0.4 qt/a		A					
	Control Duo	2 qt/100 gal	0.4 qt/a		A					
5	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	88 abc	96 -	87 -	88 -
	Control Duo	2 qt/100 gal	0.4 qt/a		A					
6	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	85 abc	98 -	73 -	85 -
	Control Duo	4 qt/100 gal	0.8 qt/a		A					
7	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	82 bcd	99 -	70 -	77 -
	Triplex	4 qt/100 gal	0.8 qt/a		A					
8	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	93 a	97 -	78 -	85 -
	Control Duo	2 qt/100 gal	0.4 qt/a		A					
	N PAK-AMS	2.5 % v/v	2.5 % v/v		A					
9	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	86 abc	96 -	83 -	86 -
	Condition	1 qt/100 gal	0.2 qt/a		A					
	Control Duo	4 qt/100 gal	0.8 qt/a		A					
10	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	85 abc	100 -	80 -	92 -
	Condition Plus	4 qt/100 gal	0.8 qt/a		A					
11	Interline	0.66 lb ai/a	36 oz/a		A	100 -	87 abc	100 -	72 -	90 -
12	Interline	0.66 lb ai/a	36 oz/a		A	100 -	92 ab	97 -	73 -	100 -
	N PAK-AMS	2.5 % v/v	2.5 % v/v		A					
13	Interline	0.66 lb ai/a	36 oz/a		A	100 -	92 ab	100 -	82 -	100 -
	Condition	2 qt/100 gal	0.4 qt/a		A					
14	Interline	0.66 lb ai/a	36 oz/a		A	100 -	87 abc	100 -	70 -	80 -
	Condition	2 qt/100 gal	0.4 qt/a		A					
	Control Duo	2 qt/100 gal	0.4 qt/a		A					

# The Ohio State University

## Glufosinate Surfactant increased Efficacy Trial

Trial ID: 20LIBSURF Location: Western Branch F-7 Trial Year: 2020  
 Protocol ID: 20LIBSURF Investigator: Dr. Mark M. Loux  
 Project ID: Study Director: Anthony Dobbels  
 Sponsor Contact: Jerry , GarrCo

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	SETFA	ECHCG	AMBTR	CHEAL	AMARE
Pest Scientific Name	Setaria faberi	Echinochloa cr>	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>
Pest Name	Giant foxtail	Common barnyar>	Giant common ragweed	lambsqu>	Redroot pigweed
Rating Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020	Jun-30-2020
Days After First/Last Applic.	14 14	14 14	14 14	14 14	14 14
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A
Plant-Eval Interval	48 DP-1	48 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence	36 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	1*	2*	3*	4*	5*
15	Interline Control Duo	0.66 lb ai/a 2 qt/100 gal	36 oz/a 0.4 qt/a		A	100 -	79 cd	100 -	81 -	86 -
16	Interline Control Duo	0.66 lb ai/a 4 qt/100 gal	36 oz/a 0.8 qt/a		A	100 -	82 bcd	95 -	78 -	80 -
17	Interline Triplex	0.66 lb ai/a 4 qt/100 gal	36 oz/a 0.8 qt/a		A	100 -	86 abc	97 -	73 -	85 -
18	Interline Control Duo	0.66 lb ai/a 2 qt/100 gal	36 oz/a 0.4 qt/a		A	100 -	82 bcd	95 -	73 -	87 -
	N PAK-AMS	2.5 % v/v	2.5 % v/v		A					
19	Interline Condition	0.66 lb ai/a 1 qt/100 gal	36 oz/a 0.2 qt/a		A	100 -	73 d	97 -	63 -	83 -
	Control Duo	4 qt/100 gal	0.8 qt/a		A					
20	Interline Condition Plus	0.66 lb ai/a 4 qt/100 gal	36 oz/a 0.8 qt/a		A	100 -	82 bcd	100 -	70 -	85 -
	LSD P=.05						10.0	7.5	17.1	15.7
	Standard Deviation					0.0	6.1	4.6	10.3	9.5
	CV					0.0	7.02	4.65	13.38	10.81
	Grand Mean					100.0	86.3	98.0	77.3	87.8
	Levene's F					0.00	0.433	0.536	0.318	0.566
	Levene's Prob(F)					.	0.974	0.927	0.995	0.908
	Rank X2					.	.	.	.	.
	P(Rank X2)					.	.	.	.	.
	Skewness					.	-0.5424	-1.8954*	0.3789	-0.2564
	Kurtosis					.	-0.2359	2.2131*	-0.5816	-1.1962
	Replicate F					0.000	8.918	0.968	6.023	0.614
	Replicate Prob(F)					1.0000	0.0007	0.3891	0.0053	0.5466
	Treatment F					0.000	2.434	0.548	1.414	1.413
	Treatment Prob(F)					1.0000	0.0097	0.9189	0.1779	0.1785

# The Ohio State University

## Glufosinate Surfactant increased Efficacy Trial

Trial ID: 20LIBSURF Location: Western Branch F-7 Trial Year: 2020  
 Protocol ID: 20LIBSURF Investigator: Dr. Mark M. Loux  
 Project ID: Study Director: Anthony Dobbels  
 Sponsor Contact: Jerry , GarrCo

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	SETFA	ECHCG	AMBTR	CHEAL	AMARE
Pest Scientific Name	Setaria	Echinochloa	Ambrosia trifi>	Chenopodium	Amaranthus
Pest Name	faberi	cr>	ragweed, giant	al>	ret>
	foxtail, giant	barnyardgrass		lambsquarters,>	pigweed, redro>
Rating Date	Jul-15-2020	Jul-15-2020	Jul-15-2020	Jul-15-2020	Jul-15-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jul-15-2020	Jul-15-2020	Jul-15-2020	Jul-15-2020	Jul-15-2020
Days After First/Last Applic.	29 29	29 29	29 29	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	29 DA-A	29 DA-A
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence	51 DE-1	51 DE-1	51 DE-1	51 DE-1	51 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	6*	7*	8*	9*	10*
1	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	87 abc	100 -	83 -	80 -
2	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	93 a	100 -	82 -	86 -
	N PAK-AMS	2.5 % v/v	1.5 qt/a		A					
3	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	88 ab	100 -	90 -	97 -
	Condition	2 qt/100 gal	0.4 qt/a		A					
4	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	77 a-e	97 -	67 -	72 -
	Condition	2 qt/100 gal	0.4 qt/a		A					
	Control Duo	2 qt/100 gal	0.4 qt/a		A					
5	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	76 a-e	87 -	82 -	82 -
	Control Duo	2 qt/100 gal	0.4 qt/a		A					
6	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	77 a-e	98 -	70 -	77 -
	Control Duo	4 qt/100 gal	0.8 qt/a		A					
7	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	70 b-f	100 -	67 -	65 -
	Triplex	4 qt/100 gal	0.8 qt/a		A					
8	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	75 a-e	97 -	70 -	63 -
	Control Duo	2 qt/100 gal	0.4 qt/a		A					
	N PAK-AMS	2.5 % v/v	2.5 % v/v		A					
9	Liberty	0.66 lb ai/a	36 oz/a		A	95 -	67 c-f	90 -	77 -	73 -
	Condition	1 qt/100 gal	0.2 qt/a		A					
	Control Duo	4 qt/100 gal	0.8 qt/a		A					
10	Liberty	0.66 lb ai/a	36 oz/a		A	100 -	63 def	100 -	67 -	70 -
	Condition Plus	4 qt/100 gal	0.8 qt/a		A					
11	Interline	0.66 lb ai/a	36 oz/a		A	98 -	73 a-f	100 -	60 -	77 -
12	Interline	0.66 lb ai/a	36 oz/a		A	99 -	85 abc	97 -	67 -	83 -
	N PAK-AMS	2.5 % v/v	2.5 % v/v		A					
13	Interline	0.66 lb ai/a	36 oz/a		A	100 -	80 a-d	100 -	84 -	97 -
	Condition	2 qt/100 gal	0.4 qt/a		A					
14	Interline	0.66 lb ai/a	36 oz/a		A	97 -	73 a-f	100 -	62 -	77 -
	Condition	2 qt/100 gal	0.4 qt/a		A					
	Control Duo	2 qt/100 gal	0.4 qt/a		A					

# The Ohio State University

## Glufosinate Surfactant increased Efficacy Trial

Trial ID: 20LIBSURF Location: Western Branch F-7 Trial Year: 2020  
 Protocol ID: 20LIBSURF Investigator: Dr. Mark M. Loux  
 Project ID: Study Director: Anthony Dobbels  
 Sponsor Contact: Jerry , GarrCo

Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	SETFA	ECHCG	AMBTR	CHEAL	AMARE
Pest Scientific Name	Setaria faberi	Echinochloa cr>	Ambrosia trifi>	Chenopodium al>	Amaranthus ret>
Pest Name	foxtail, giant	barnyardgrass	ragweed, giant	lambsquarters,>	pigweed, redro>
Rating Date	Jul-15-2020	Jul-15-2020	Jul-15-2020	Jul-15-2020	Jul-15-2020
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit	%	%	%	%	%
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jul-15-2020	Jul-15-2020	Jul-15-2020	Jul-15-2020	Jul-15-2020
Days After First/Last Applic.	29 29	29 29	29 29	29 29	29 29
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	29 DA-A	29 DA-A
Plant-Eval Interval	63 DP-1	63 DP-1	63 DP-1	63 DP-1	63 DP-1
Days After Emergence	51 DE-1	51 DE-1	51 DE-1	51 DE-1	51 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Other Rate	Other Rate	Appl Unit Code	6*	7*	8*	9*	10*
15	Interline	0.66 lb ai/a	36 oz/a		A	100 -	73 b-f	97 -	82 -	82 -
	Control Duo	2 qt/100 gal	0.4 qt/a		A					
16	Interline	0.66 lb ai/a	36 oz/a		A	96 -	53 f	100 -	60 -	53 -
	Control Duo	4 qt/100 gal	0.8 qt/a		A					
17	Interline	0.66 lb ai/a	36 oz/a		A	100 -	70 b-f	97 -	65 -	77 -
	Triplex	4 qt/100 gal	0.8 qt/a		A					
18	Interline	0.66 lb ai/a	36 oz/a		A	97 -	57 ef	93 -	60 -	77 -
	Control Duo	2 qt/100 gal	0.4 qt/a		A					
	N PAK-AMS	2.5 % v/v	2.5 % v/v		A					
19	Interline	0.66 lb ai/a	36 oz/a		A	95 -	53 f	87 -	57 -	60 -
	Condition	1 qt/100 gal	0.2 qt/a		A					
	Control Duo	4 qt/100 gal	0.8 qt/a		A					
20	Interline	0.66 lb ai/a	36 oz/a		A	97 -	73 a-f	100 -	65 -	83 -
	Condition Plus	4 qt/100 gal	0.8 qt/a		A					
	LSD P=.05					5.0	20.1	10.5	24.0	29.6
	Standard Deviation					3.1	12.2	6.4	14.5	17.9
	CV					3.09	16.63	6.57	20.55	23.4
	Grand Mean					98.7	73.1	96.9	70.7	76.5
	Levene's F					1.024	0.612	1.409	0.271	0.498
	Levene's Prob(F)					0.458	0.875	0.177	0.998	0.948
	Rank X2					.	.	.	.	.
	P(Rank X2)					.	.	.	.	.
	Skewness					-2.235*	-0.6622*	-2.6615*	0.006	-0.319
	Kurtosis					3.5199*	0.4229	7.582*	-0.4257	-0.756
	Replicate F					0.951	11.827	0.134	2.435	0.265
	Replicate Prob(F)					0.3953	0.0001	0.8752	0.1012	0.7687
	Treatment F					1.182	2.390	1.435	1.396	1.108
	Treatment Prob(F)					0.3211	0.0109	0.1681	0.1868	0.3814

# The Ohio State University

## Glufosinate Surfactant increased Efficacy Trial

Trial ID: 20LIBSURF      Location: Western Branch F-7      Trial Year: 2020  
Protocol ID: 20LIBSURF      Investigator: Dr. Mark M. Loux  
Project ID:      Study Director: Anthony Dobbels  
Sponsor Contact: Jerry , GarrCo

### Pest Type

W, Weed = Weed or volunteer crop

### Pest Code

SETFA, Setaria faberi, Giant foxtail = US  
ECHCG, Echinochloa crus-galli, Common barnyard grass = US  
AMBTR, Ambrosia trifida, Giant ragweed = US  
CHEAL, Chenopodium album, common lambsquarters = US  
AMARE, Amaranthus retroflexus, Redroot pigweed = US  
SETFA, Setaria faberi, foxtail, giant = US  
ECHCG, Echinochloa crus-galli, barnyardgrass = US  
AMBTR, Ambrosia trifida, ragweed, giant = US  
CHEAL, Chenopodium album, lambsquarters, common = US  
AMARE, Amaranthus retroflexus, pigweed, redroot = US

### Rating Type

CONTRO = control / burndown or knockdown

### Rating Unit

% = percent

### Plant-Eval Interval

48 DP-1 = 1 GLXMA May-13-2020

63 DP-1 = 1 GLXMA May-13-2020