ARM 2022.2 (21S-TPAC-SOY-20)

Purdue Weed Science

Volatility Reduction Adjuvant Effect on Dicamba plus Glyphosate Efficacy

Trial ID: 21S-TPAC-SOY-20 Location: TPAC
Protocol ID: 21S-TPAC-SOY-20 Investigator (Creator): Dr. Bill Johnson Trial Year: 2021

Study Director: Brent Mansfield Sponsor Contact: Project ID:

General Trial Information

Study Director: Brent Mansfield Title: Research Associate

Investigator: Dr. Bill Johnson Title: Professor

established

Trial Status: E estal ARM Trial Created On: 6/11/2021 Initiation Date: 6/11/2021

Trial Location

Country: USA United States

City: Lafayette State/Prov.: Indiana Postal Code: 47907

Conducted Under GLP: No Conducted Under GEP: No

Contacts

Study Director: Brent Mansfield
Organization: Purdue University Title: Research Associate

Address 1: 915 W. State Street

Country: USA **United States** E-mail: brentmansfield@purdue.edu City: West Lafayette Postal Code: 47907 State/Prov: IN

Investigator: Dr. Bill Johnson Title: Professor

Organization: Purdue University Address 1: 915 W. State Street

E-mail: wgj@purdue.edu State/Prov: IN Postal Code: 47907 Country: USA **United States** City: West Lafayette

Crop Description

Soybean **Crop 1:** C **GLXMA Glycine max**

Stage Scale: BBCH

Variety: AG29XF1

Attributes: XtendFlex: Gly-R, Glu-R, Dicamba-R

Planting Date: 5/26/2021

Planting Rate: 140000 S/A **Depth:** 1.75

Planting Method: PLANTD planted Rows per Plot: 4 Row Spacing: 30 Planting Equipment: PP plot planter Soil Temperature: 60 Soil Moisture: NORMAL normal, adequate Emergence Date: 6/3/2021

Pest Description

Pest 1 Type: W Code: AMBTR Ambrosia trifida Entry Date: 1/5/2022 Common Name: Giant ragweed Stage Scale: BBCH

Entry Date: 1/5/2022 Pest 2 Type: W Code: ECHCG Echinochloa crus-galli Common Name: common barnyardgrass Stage Scale: BBCH

Pest 3 Type: W Code: SETFA Setaria faberi Entry Date: 1/5/2022 Common Name: Giant foxtail Stage Scale: BBCH

Pest 4 Type: W Code: CHEAL Chenopodium album Entry Date: 1/5/2022 Common Name: common lambsquarters Stage Scale: BBCH

Site and Design

Treated Plot Width: 10 FT Site Type: FIELD field

PLOT Treated Plot Length: 30 FT Experimental Unit: 1 Treated Plot Area: 300.0 FT2 Treatments: 10

Tillage Type: CONTIL conventional-till Study Design: RACOBL Randomized Complete Block (RCB) Replications: 4

Application Description					
	Α				
Application Date	6/11/2021				
Appl. Start Time	12:30 PM				
Appl. Stop Time	1:10 PM				
Application Method	SPRAY				
Application Timing	POSPOS				
Application Placement	BROFOL				
Applied By	L. MAIA				
Air Temperature Start, Stop	90.5, 90.5 F				
% Relative Humidity Start, Stop	43, 43				
Wind Velocity+Dir. Start	4 MPH, N				
Wet Leaves (Y/N)	N, no				
Soil Temperature	85 F				
Soil Moisture	DRY				
% Cloud Cover	30				

Crop Stage At Each Application				
	Α			
Crop 1 Code, BBCH Scale	GLXMA, BSOY			
Days after Emergence	8			
Stage Majority, Percent	10, -			
Stage Minimum, Percent	10, -			
Stage Maximum, Percent	11, -			
Height Average	3 IN			
Height Minimum, Maximum	2, 4			

Pest 1 Code, Type, Scale AMBTR, W, BBCH Stage Majority, Percent 19, - Stage Minimum, Percent 18, - Stage Maximum, Percent 19, - Height Average 8 IN Height Minimum, Maximum 6, 12 Density Average 15 FT2 Pest 2 Code, Type, Scale ECHCG, W, BBCH Stage Majority, Percent 13, - Stage Minimum, Percent 15, - Height Average 2 IN Height Minimum, Maximum 1, 3 Density Average 5 FT2 Pest 3 Code, Type, Scale SETFA, W, BBCH Stage Majority, Percent 13, - Stage Minimum, Percent 15, - Height Average 5 FT2 Pest 3 Code, Type, Scale SETFA, W, BBCH Stage Majority, Percent 15, - Height Average 2 IN Height Average 5 FT2 Pest 4 Code, Type, Scale CHEAL, W, BBCH Stage Majority, Percent 18, - Stage Majority, Percent 15, - Stage Majority, Percent 19, - Height Average 2 IN Height Minimum, Percent 19, - Height Average 2 IN Height Minimum, Maximum 2, 3 Density Average 1 FT2	Pest Stage At Each Application			
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Height Minimum, Maximum 2, 3		19, -		
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Density Average 1 FT2	,	2, 3		
	Density Average	1 FT2		

Application Equipment				
	Α			
Appl. Equipment	CO2 BACKPACK			
Equipment Type	BACSPR			
Operation Pressure	30 PSI			
Nozzle Model	TTI			
Nozzle Type	TEEJAI			
Nozzle TradeName	TEEJET			
Nozzle Tip Size, Color	110015, GREEN			
Nozzle Spacing	15 IN			
Nozzles/Row	8			
Boom Length	10 FT			
Boom Height	25 IN			
Ground Speed	3 MPH			
Carrier	WATER			
Application Amount	15 GAL/AC			
Mix Overage	0 mL			
Mix Size	1.8 L			
Propellant	COMCO2			

ARM 2022.2 (21S-TPAC-SOY-20)

Purdue Weed Science

Volatility Reduction Adjuvant Effect on Dicamba plus Glyphosate Efficacy Trial Year: 2021

Trial ID: 21S-TPAC-SOY-20 Location: TPAC
Protocol ID: 21S-TPAC-SOY-20 Investigator (Creator): Dr. Bill Johnson
Project ID: Study Director: Brent Mansfield
Sponsor Contact:

Pest Type	Sponsor Contact.					
Pest Name						
Rating Date Rating Type CONTRO	_			_	_	
Rating Type						
Rating Unit/Min/Max Mode	1 0					
Number of Subsamples	Rating Unit/Min/Max			7.7	7.7	
Data Entry Date Rating Timing 11/5/2022 14/5/2022 12/5/2022 12/5/2022 14/5/2022 12/5/2022 14/5/2	Number of Subsamples			1	70, 0, 100	
Rating Timing				1/5/2022	1/5/2022	
Trt-Eval Interval					28 DAT	
Trt-Eval Interval	Days After First/Last Applic) .		14, 14	28, 28	
Trt Treatment	Trt-Eval Interval					
No. Name	Days After Emergence			22 DE-1	36 DE-1	
1 Nontreated	Trt Treatment	Rate	Appl	1	2	
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Standard Deviation 1.70 0.00 CV 1.77 0.0 Grand Mean 95.61 100.00 Levene's F^ 8.711 . Levene's Prob(F) 0.00* . Rank X2 . . P(Rank X2) . . Skewness^ 0.0485 . Kurtosis^ -0.3051 . Replicate F 2.534 0.000 Replicate Prob(F) 0.0808 1.0000 Treatment F 6.839 0.000	VaporGrip Xtra	20 FL OZ/A	Α			
CV 1.77 0.0 Grand Mean 95.61 100.00 Levene's F^ 8.711 . Levene's Prob(F) 0.00* . Rank X2 . . P(Rank X2) . . Skewness^ 0.0485 . Kurtosis^ -0.3051 . Replicate F 2.534 0.000 Replicate Prob(F) 0.0808 1.0000 Treatment F 6.839 0.000	LSD P=.05			2.48		
Grand Mean 95.61 100.00 Levene's F^ 8.711 . Levene's Prob(F) 0.00* . Rank X2 . . P(Rank X2) . . Skewness^ 0.0485 . Kurtosis^ -0.3051 . Replicate F 2.534 0.000 Replicate Prob(F) 0.0808 1.0000 Treatment F 6.839 0.000	Standard Deviation			1.70	0.00	
Levene's F^ 8.711 Levene's Prob(F) 0.00* Rank X2 . P(Rank X2) . Skewness^ 0.0485 Kurtosis^ -0.3051 Replicate F 2.534 0.000 Replicate Prob(F) 0.0808 1.0000 Treatment F 6.839 0.000	CV					
Levene's Prob(F) 0.00* Rank X2 . P(Rank X2) . Skewness^ 0.0485 Kurtosis^ -0.3051 Replicate F 2.534 0.000 Replicate Prob(F) 0.0808 1.0000 Treatment F 6.839 0.000					100.00	
Rank X2 . </td <td></td> <td></td> <td></td> <td></td> <td></td>						
P(Rank X2) .				0.00*	-	
Skewness^A 0.0485 Kurtosis^A -0.3051 Replicate F 2.534 0.000 Replicate Prob(F) 0.0808 1.0000 Treatment F 6.839 0.000					-	
Kurtosis^ -0.3051 Replicate F 2.534 0.000 Replicate Prob(F) 0.0808 1.0000 Treatment F 6.839 0.000			0.0495	-		
Replicate F 2.534 0.000 Replicate Prob(F) 0.0808 1.0000 Treatment F 6.839 0.000						
Replicate Prob(F) 0.0808 1.0000 Treatment F 6.839 0.000	1\u1\u0313			-0.3051		
Treatment F 0.000 0.000	Replicate F			2.534	0.000	
	Replicate Prob(F)			0.0808	1.0000	
Treatment Prob(F) 0.0001 1.0000						
	Treatment Prob(F)			0.0001	1.0000	

Pest Type
W, Weed = Weed or volunteer crop
Pest Code
AMBTR, Ambrosia trifida, Giant ragweed = US
Rating Type
CONTRO = control / burndown or knockdown
Rating Unit/Min/Max
%, 0, 100 = percent