

The Ohio State University

ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Trial ID: 22BASFPRESOY
 Protocol ID: MKD-H-2022-US-D99-A-01.0 Location: Western Branch F-7 East
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Cooperator Trial ID:

Trial Year: 2030

General Trial Information

Investigator: INMAN MATT

Status: E established Usage/Type: 6
 ARM Trial Created On: Apr-21-2022
 Initiation Date: Apr-27-2022

Trial Location

City: South Charleston Country: USA United States
 State/Prov.: Ohio
 Postal Code: 45368

Latitude of LL Corner °: 39.86016 N
 Longitude of LL Corner °: -83.66999 W
 Altitude of LL Corner: 1090.00 FT

Conducted Under GLP: No
 Conducted Under GEP: No
 None

Objectives:

Evaluate residual weed control (grass, large seeded broadleaf, and Amaranthus spp. and crop response of Zidua PRO compared to competitors

Role: INVEST investigator
 Investigator: INMAN MATT

Crop Description

Crop 1: C.GLXMA Glycine max Soybean
 Entry Date: May-2-2022 Stage Scale: BBCH
 Variety: AG35FX1
 Attributes: DICAMBA, GLYPHOSATE, GLUFOSINATE TOL
 Seed Size: 2580 S/LB
 Planting Date: Apr-27-2022 Planting Rate: 165000 S/A
 Depth: 1.5 IN
 Rows per Plot: 8
 Row Spacing: 15 IN
 Planting Method: PLANTD planted
 Planting Equipment: PP plot planter
 Seed Bed: MEDIUM medium
 Soil Moisture: NORMAL normal, adequate
 Soil Temperature: 52 F
 Emergence Date: May-16-2022

Pest Description

Amaranth, Palmer
 Common Name: Amaranthus Palmeri

Waterhemp, Tall
 Common Name: Amaranthus Tuberculatus

Weeds, Monocot/Grasses
 Common Name: Monocot Weed Plants

Weeds, Dicot/Broad-Leaves
 Common Name: Dicot Weed Plants

Soybean
 Common Name: Glycine Max (L.) Merr.

Soybean
 Common Name: Glycine Max (L.) Merr.

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 Tillage Type: CONTIL conventional-till
 Replications: 3 Treatments: 6 Plots: 18 Study Design: RACOB Randomized Complete Block (RCB)

Previous
 No. Crop Year
 1. CORN 2021

Soil Description

Description Name: F-7 East
 % Sand: 37 % OM: 2.8 Texture: SICL silty clay loam
 % Silt: 48 Soil Name: Kokomo
 % Clay: 15 Fert. Level: G good
 pH: 5.7 CEC: 11

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Application Description

Application Date Apr-28-2022
 Appl. Start Time 9:30 AM
 Appl. Stop Time 10:00 AM
 Application Method SPRAY
 Application Timing VA
 Application Placement BROSOL
 Applied By Dobbels
 Appl. Entry Date May-2-2022
 Air Temperature Start, Stop 43, 43 F
 % Relative Humidity Start, Stop 44, 44
 Wind Velocity+Dir. Start 3.5 MPH, E
 Wind Velocity+Dir. Stop 3.5 MPH, E
 Wind Velocity+Dir. Max 3.5 MPH, E
 Wet Leaves (Y/N) N, no
 Soil Temperature 40 F
 Soil Moisture SLIDRY
 Soil Surface Condition MED
 % Cloud Cover 90
 Next Moisture Occurred On Apr-30-2022
 Time to Next Moisture 2.0 DAY
 Moisture 6 Hours after Appl. 0 IN
 Moisture 1 Week after Appl. 1.1 IN

Crop Stage At Each Application

Crop 1 Code, BBCH Scale GLXMA, BSOY
 Days after Emergence -18

Notes

Context Date By Notes
 STATUS Apr-21-2022 Dr. Mark M. Loux Automatically added by ARM: Trial Status updated to 'S' during trial creation.
 STATUS May-2-2022 Dr. Mark M. Loux Automatically added by ARM: Trial Status updated to 'E' when Planting Date entered.

SE Definitions

SE Description	1.	2.	3.	4.	5.	6.
CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
L OF	L OF	L OF	L OF	L OF	L OF	L OF
UNTREA	UNTREA	UNTREA	UNTREA	UNTREA	UNTREA	UNTREA
TED	TED	TED	TED	TED	TED	TED
CHECK	CHECK	CHECK	CHECK	CHECK	CHECK	CHECK

Pest Type, Code-, AMAPA-, AMATU-, TTTMM-, TTTDD -, GLXMA-, GLXMA

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	SETFA	AMBTR	CHEAL	ABUTH	POLPY
Pest Name	Giant foxtail	Giant ragweed	common lambsqua>	velvetleaf	annual smartweed
Crop Type, Code	C, GLXMA				
Crop Name	Soybean				
Rating Date	May-19-2022	May-19-2022	May-19-2022	May-19-2022	May-19-2022
SE Group No.	1	2	3	4	5
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Data Entry Date	May-19-2022	May-19-2022	May-19-2022	May-19-2022	May-19-2022
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	21, 21
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	22 DP-1	22 DP-1
Days After Emergence	3 DE-1	3 DE-1	3 DE-1	3 DE-1	3 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Rate	Appl Code	1*	2*	3*	4*	5*	6*
1	CHECK			0-	0c	0b	0-	0-	0-
2	ZIDUA PRO	6.0 fl oz/a	A	0-	89ab	87a	100-	100-	100-
3	Tendovo	67.2 fl oz/a	A	0-	97a	87a	100-	100-	100-
4	KYBER	16.0 fl oz/a	A	0-	90ab	88a	100-	100-	100-
5	ENGENIA PRIME	16.0 fl oz/a	A	0-	90ab	87a	100-	100-	100-
5	SENTRIS	8 fl oz/a	A						

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	SETFA	AMBTR	CHEAL	ABUTH	POLPY			
Pest Name	Giant foxtail Giant ragweed common lambsqua> velvetleaf annual smartweed							
Crop Type, Code	C, GLXMA							
Crop Name	Soybean							
Rating Date	May-19-2022	May-19-2022	May-19-2022	May-19-2022	May-19-2022			
SE Group No.	1	2	3	4	5			
Rating Type	PHYGEN	CONTRO	CONTRO	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1	1			
Data Entry Date	May-19-2022	May-19-2022	May-19-2022	May-19-2022	May-19-2022			
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	21, 21			
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A			
Plant-Eval Interval	22 DP-1	22 DP-1	22 DP-1	22 DP-1	22 DP-1			
Days After Emergence	3 DE-1	3 DE-1	3 DE-1	3 DE-1	3 DE-1			
Number of Decimals	0	0	0	0	0			
Trt Treatment No. Name	Rate	Appl Code	1*	2*	3*	4*	5*	6*
6 Panther Pro	15 fl oz/a	A	0-	82b	87a	100-	100-	100-
LSD P=.05			.	6.6	5.0	.	.	.
Standard Deviation			0.0	3.6	2.7	0.0	0.0	0.0
CV			0.0	4.85	3.78	0.0	0.0	0.0
Grand Mean			0.0	74.6	72.5	83.3	83.3	83.3
Levene's F^			.	0.382	0.251	.	.	.
Levene's Prob(F)			.	0.852	0.931	.	.	.
Rank X2			.	.	.	.	.	.
P(Rank X2)			.	.	.	.	.	.
Skewness^			.	-0.0327	-0.5951	.	.	.
Kurtosis^			.	0.0615	-0.7962	.	.	.
Replicate F			0.000	2.869	3.889	0.000	0.000	0.000
Replicate Prob(F)			1.0000	0.1036	0.0563	1.0000	1.0000	1.0000
Treatment F			0.000	311.627	504.778	0.000	0.000	0.000
Treatment Prob(F)			1.0000	0.0001	0.0001	1.0000	1.0000	1.0000

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Trt No.	Treatment Name	Rate	Appl Unit	Code	7*	8*	9*	10*	11*	12*
1	CHECK				0-	0-	0c	0b	0-	0-
2	ZIDUA PRO	6.0 fl oz/a	A		100-	0-	93ab	78a	100-	100-
3	Tendovo	67.2 fl oz/a	A		100-	0-	97a	80a	100-	100-
4	KYBER	16.0 fl oz/a	A		100-	2-	87b	83a	100-	100-
5	ENGENIA PRIME	16.0 fl oz/a	A		100-	0-	88b	73a	100-	100-
5	SENTRIS	8 fl oz/a	A							

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	AMARE	SETFA	AMBTR	CHEAL	AMARE			
Pest Name	Redroot pigweed	Giant foxtail	Giant ragweed	common lambsqua	Redroot pigweed			
Crop Type, Code	C, GLXMA							
Crop Name	Soybean							
Rating Date	May-19-2022	May-26-2022	May-26-2022	May-26-2022	May-26-2022			
SE Group No.	7	8	9	10	11			
Rating Type	CONTRO	PHYLMA	CONTRO	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1	1			
Data Entry Date	May-19-2022	May-27-2022	May-27-2022	May-27-2022	May-27-2022			
Days After First/Last Applic.	21, 21	28, 28	28, 28	28, 28	28, 28			
Trt-Eval Interval	21 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A			
Plant-Eval Interval	22 DP-1	29 DP-1	29 DP-1	29 DP-1	29 DP-1			
Days After Emergence	3 DE-1	10 DE-1	10 DE-1	10 DE-1	10 DE-1			
Number of Decimals	0	0	0	0	0			
Trt Treatment No. Name	Rate	Appl Code	7*	8*	9*	10*	11*	12*
6 Panther Pro	15 fl oz/a	A	100-	3-	85b	85a	100-	100-
LSD P=.05			.	2.3	7.2	11.4	.	.
Standard Deviation			0.0	1.3	4.0	6.3	0.0	0.0
CV			0.0	162.07	5.28	9.39	0.0	0.0
Grand Mean			83.3	0.8	75.1	66.7	83.3	83.3
Levene's F^			.	0.977	1.304	1.308	.	.
Levene's Prob(F)			.	0.47	0.326	0.324	.	.
Rank X2			.	.	.	.	.	.
P(Rank X2)			.	.	.	.	.	.
Skewness^			.	-0.8228	0.6611	-0.5485	.	.
Kurtosis^			.	1.6293	3.3037*	2.1641*	.	.
Replicate F			0.000	0.874	0.046	7.128	0.000	0.000
Replicate Prob(F)			1.0000	0.4468	0.9553	0.0119	1.0000	1.0000
Treatment F			0.000	2.825	262.318	82.979	0.000	0.000
Treatment Prob(F)			1.0000	0.0762	0.0001	0.0001	1.0000	1.0000

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	ABUTH	POLPY		SETFA	AMBTR	CHEAL		
Pest Name	velvetleaf	annual smartweed		Giant foxtail	Giant ragweed	common lambsqua		
Crop Type, Code			C, GLXMA					
Crop Name			Soybean					
Rating Date	May-26-2022	May-26-2022	Jun-1-2022	Jun-1-2022	Jun-1-2022	Jun-1-2022		
SE Group No.	13	14	15	16	17	18		
Rating Type	CONTRO	CONTRO	PHYLMA	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples	1	1	1	1	1	1		
Data Entry Date	May-27-2022	May-27-2022	May-31-2022	May-31-2022	May-31-2022	May-31-2022		
Days After First/Last Applic.	28, 28	28, 28	34, 34	34, 34	34, 34	34, 34		
Trt-Eval Interval	28 DA-A	28 DA-A	34 DA-A	34 DA-A	34 DA-A	34 DA-A		
Plant-Eval Interval	29 DP-1	29 DP-1	35 DP-1	35 DP-1	35 DP-1	35 DP-1		
Days After Emergence	10 DE-1	10 DE-1	16 DE-1	16 DE-1	16 DE-1	16 DE-1		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment	Rate	Appl	13*	14*	15*	16*	17*	18*
No. Name	Rate Unit	Code						
1 CHECK			0-	0-	0-	0b	0c	0-
2 ZIDUA PRO	6.0 fl oz/a	A	100-	100-	1-	84a	33b	100-
3 Tendovo	67.2 fl oz/a	A	100-	100-	1-	88a	53a	100-
4 KYBER	16.0 fl oz/a	A	100-	100-	2-	81a	60a	100-
5 ENGENIA PRIME	16.0 fl oz/a	A	100-	100-	0-	84a	23b	100-
5 SENTRIS	8 fl oz/a	A						

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed			
Pest Code	ABUTH	POLPY	SETFA	AMBTR	CHEAL			
Pest Name	velvetleaf annual	smartweed	Giant foxtail	Giant ragweed	common lambsqua>			
Crop Type, Code			C, GLXMA					
Crop Name			Soybean					
Rating Date	May-26-2022	May-26-2022	Jun-1-2022	Jun-1-2022	Jun-1-2022			
SE Group No.	13	14	15	16	17			
Rating Type	CONTRO	CONTRO	PHYLMA	CONTRO	CONTRO			
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100			
Number of Subsamples	1	1	1	1	1			
Data Entry Date	May-27-2022	May-27-2022	May-31-2022	May-31-2022	May-31-2022			
Days After First/Last Applic.	28, 28	28, 28	34, 34	34, 34	34, 34			
Trt-Eval Interval	28 DA-A	28 DA-A	34 DA-A	34 DA-A	34 DA-A			
Plant-Eval Interval	29 DP-1	29 DP-1	35 DP-1	35 DP-1	35 DP-1			
Days After Emergence	10 DE-1	10 DE-1	16 DE-1	16 DE-1	16 DE-1			
Number of Decimals	0	0	0	0	0			
Trt Treatment No. Name	Rate	Appl Code	13*	14*	15*	16*	17*	18*
6 Panther Pro	15 fl oz/a	A	100-	100-	3-	84 a	63 a	100-
LSD P=.05			.	.	2.7	6.0	19.3	.
Standard Deviation			0.0	0.0	1.5	3.3	10.6	0.0
CV			0.0	0.0	125.19	4.67	27.24	0.0
Grand Mean			83.3	83.3	1.2	70.3	38.9	83.3
Levene's F^			.	.	1.237	0.365	0.92	.
Levene's Prob(F)			.	.	0.351	0.863	0.501	.
Rank X2			.	.	.	.	.	.
P(Rank X2)			.	.	.	.	.	.
Skewness^			.	.	0.0941	0.1799	-0.2041	.
Kurtosis^			.	.	0.6537	-0.1646	-0.3715	.
Replicate F			0.000	0.000	0.313	1.409	12.228	0.000
Replicate Prob(F)			1.0000	1.0000	0.7385	0.2891	0.0021	1.0000
Treatment F			0.000	0.000	2.609	332.173	16.238	0.000
Treatment Prob(F)			1.0000	1.0000	0.0923	0.0001	0.0002	1.0000

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	AMARE	ABUTH	POLPY	SETFA	ECHCG	AMBTR		
Pest Name	Redroot pigweed	velvetleaf annual	smartweed	Giant foxtail common	barnyard>	Giant ragweed		
Crop Type, Code								
Crop Name								
Rating Date	Jun-1-2022	Jun-1-2022	Jun-1-2022	Jun-7-2022	Jun-7-2022	Jun-7-2022		
SE Group No.	19	20	21	23	24	25		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1		
Data Entry Date	May-31-2022	May-31-2022	May-31-2022	Jun-8-2022	Jun-8-2022	Jun-8-2022		
Days After First/Last Applic.	34, 34	34, 34	34, 34	40, 40	40, 40	40, 40		
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	40 DA-A	40 DA-A	40 DA-A		
Plant-Eval Interval	35 DP-1	35 DP-1	35 DP-1	41 DP-1	41 DP-1	41 DP-1		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	22 DE-1	22 DE-1	22 DE-1		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment	Rate	Appl	19*	20*	21*	22*	23*	24*
No. Name	Rate Unit	Code						
1 CHECK			0-	0-	0-	0c	0c	0c
2 ZIDUA PRO	6.0 fl oz/a	A	100-	100-	100-	83a	83a	30b
3 Tendovo	67.2 fl oz/a	A	100-	100-	100-	93a	93a	50ab
4 KYBER	16.0 fl oz/a	A	100-	100-	100-	68b	68b	47ab
5 ENGENIA PRIME	16.0 fl oz/a	A	100-	100-	100-	85a	85a	30b
5 SENTRIS	8 fl oz/a	A						

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	AMARE	ABUTH	POLPY	SETFA	ECHCG	AMBTR		
Pest Name	Redroot pigweed	velvetleaf	annual smartweed	Giant foxtail	common barnyard	Giant ragweed		
Crop Type, Code								
Crop Name								
Rating Date	Jun-1-2022	Jun-1-2022	Jun-1-2022	Jun-7-2022	Jun-7-2022	Jun-7-2022		
SE Group No.	19	20	21	23	24	25		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1	1		
Data Entry Date	May-31-2022	May-31-2022	May-31-2022	Jun-8-2022	Jun-8-2022	Jun-8-2022		
Days After First/Last Applic.	34, 34	34, 34	34, 34	40, 40	40, 40	40, 40		
Trt-Eval Interval	34 DA-A	34 DA-A	34 DA-A	40 DA-A	40 DA-A	40 DA-A		
Plant-Eval Interval	35 DP-1	35 DP-1	35 DP-1	41 DP-1	41 DP-1	41 DP-1		
Days After Emergence	16 DE-1	16 DE-1	16 DE-1	22 DE-1	22 DE-1	22 DE-1		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate	Appl Code	19*	20*	21*	22*	23*	24*
6 Panther Pro	15 fl oz/a	A	100-	100-	100-	81 a	81 a	60 a
LSD P=.05			.	.	.	11.0	11.0	15.5
Standard Deviation			0.0	0.0	0.0	6.1	6.1	8.5
CV			0.0	0.0	0.0	8.87	8.87	23.53
Grand Mean			83.3	83.3	83.3	68.4	68.4	36.1
Levene's F^			.	.	.	0.449	0.449	0.327
Levene's Prob(F)			.	.	.	0.806	0.806	0.887
Rank X2			.	.	.	.	.	.
P(Rank X2)			.	.	.	.	.	.
Skewness^			.	.	.	0.2654	0.2654	0.3954
Kurtosis^			.	.	.	-0.3505	-0.3505	-0.6381
Replicate F			0.000	0.000	0.000	0.187	0.187	10.692
Replicate Prob(F)			1.0000	1.0000	1.0000	0.8322	0.8322	0.0033
Treatment F			0.000	0.000	0.000	96.541	96.541	18.723
Treatment Prob(F)			1.0000	1.0000	1.0000	0.0001	0.0001	0.0001

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Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	CHEAL	AMARE	ABUTH	POLPY	SETFA	ECHCG		
Pest Name	common lambsqua>	Redroot pigweed	velvetleaf annual	smartweed	Giant foxtail	common barnyard>		
Crop Type, Code								
Crop Name								
Rating Date	Jun-7-2022	Jun-7-2022	Jun-7-2022	Jun-7-2022	Jun-22-2022	Jun-22-2022		
SE Group No.	27	37	28	29	30	31		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Number of Subsamples	1	1	1	1	1	1		
Data Entry Date	Jun-8-2022	Jul-18-2022	Jun-8-2022	Jun-8-2022	Jun-21-2022	Jun-21-2022		
Days After First/Last Applic.	40, 40	40, 40	40, 40	40, 40	55, 55	55, 55		
Trt-Eval Interval	40 DA-A	40 DA-A	40 DA-A	40 DA-A	55 DA-A	55 DA-A		
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	41 DP-1	56 DP-1	56 DP-1		
Days After Emergence	22 DE-1	22 DE-1	22 DE-1	22 DE-1	37 DE-1	37 DE-1		
Number of Decimals	0	0	0	0	0	0		
Trt Treatment No. Name	Rate	Appl Code	25*	26*	27*	28*	29*	30*
Rate Unit								
1 CHECK			0-	0-	0-	0-	0c	0c
2 ZIDUA PRO	6.0 fl oz/a	A	100-	100-	100-	100-	85a	82a
3 Tendovo	67.2 fl oz/a	A	100-	100-	100-	100-	92a	93a
4 KYBER	16.0 fl oz/a	A	100-	100-	100-	100-	70b	65b
5 ENGENIA PRIME	16.0 fl oz/a	A	100-	100-	100-	100-	87a	85a
5 SENTRIS	8 fl oz/a	A						

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ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Trial ID: 22BASFPRESOY Cooperator Trial ID:
 Protocol ID: MKD-H-2022-US-D99-A-01.0 Location: Western Branch F-7 East Trial Year: 2030
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	CHEAL	AMARE	ABUTH	POLPY	SETFA	ECHCG
Pest Name	common lambsqua	> Redroot pigweed	velvetleaf	annual smartweed	Giant foxtail	common barnyard>
Crop Type, Code						
Crop Name						
Rating Date	Jun-7-2022	Jun-7-2022	Jun-7-2022	Jun-7-2022	Jun-22-2022	Jun-22-2022
SE Group No.	27	37	28	29	30	31
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1	1
Data Entry Date	Jun-8-2022	Jul-18-2022	Jun-8-2022	Jun-8-2022	Jun-21-2022	Jun-21-2022
Days After First/Last Applic.	40, 40	40, 40	40, 40	40, 40	55, 55	55, 55
Trt-Eval Interval	40 DA-A	40 DA-A	40 DA-A	40 DA-A	55 DA-A	55 DA-A
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	41 DP-1	56 DP-1	56 DP-1
Days After Emergence	22 DE-1	22 DE-1	22 DE-1	22 DE-1	37 DE-1	37 DE-1
Number of Decimals	0	0	0	0	0	0
Trt Treatment	25*	26*	27*	28*	29*	30*
No. Name						
Rate						
Appl Code						
6 Panther Pro	15 fl oz/a A					
		100-	100-	100-	100-	88a
						85a
LSD P=.05					10.7	9.9
Standard Deviation	0.0	0.0	0.0	0.0	5.9	5.4
CV	0.0	0.0	0.0	0.0	8.38	7.97
Grand Mean	83.3	83.3	83.3	83.3	70.3	68.2
Levene's F^					0.461	0.515
Levene's Prob(F)					0.798	0.761
Rank X2						
P(Rank X2)						
Skewness^					-0.0686	0.4596
Kurtosis^					0.1592	-0.4575
Replicate F	0.000	0.000	0.000	0.000	0.760	7.000
Replicate Prob(F)	1.0000	1.0000	1.0000	1.0000	0.4929	0.0126
Treatment F	0.000	0.000	0.000	0.000	107.272	121.925
Treatment Prob(F)	1.0000	1.0000	1.0000	1.0000	0.0001	0.0001

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ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Trial ID: 22BASFPRESOY
 Protocol ID: MKD-H-2022-US-D99-A-01.0 Location: Western Branch F-7 East
 Project ID: Project ID 2: Project ID 3: Cooperator Trial ID:
 Study Director: Sponsor Contact: Trial Year: 2030
 Investigator (Creator): Dr. Mark M. Loux

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	AMBTR	CHEAL	AMARE	ABUTH	POLPY		
Pest Name	Giant ragweed	common lambsqua	Redroot pigweed	velvetleaf	annual smartweed		
Crop Type, Code							
Crop Name							
Rating Date	Jun-22-2022	Jun-22-2022	Jun-22-2022	Jun-22-2022	Jun-22-2022		
SE Group No.	32	34	38	35	36		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Number of Subsamples	1	1	1	1	1		
Data Entry Date	Jun-21-2022	Jun-21-2022	Jul-18-2022	Jun-21-2022	Jun-21-2022		
Days After First/Last Applic.	55, 55	55, 55	55, 55	55, 55	55, 55		
Trt-Eval Interval	55 DA-A	55 DA-A	55 DA-A	55 DA-A	55 DA-A		
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1	56 DP-1	56 DP-1		
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl	31*	32*	33*	34*	35*
No. Name	Rate Unit	Code					
1 CHECK			0c	0-	0-	0-	0-
2 ZIDUA PRO	6.0 fl oz/a	A	33a	100-	100-	100-	100-
3 Tendovo	67.2 fl oz/a	A	17b	100-	100-	100-	100-
4 KYBER	16.0 fl oz/a	A	37a	100-	100-	100-	100-
5 ENGENIA PRIME	16.0 fl oz/a	A	30a	100-	100-	100-	100-
5 SENTRIS	8 fl oz/a	A					

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ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Trial ID: 22BASFPRESOY
 Protocol ID: MKD-H-2022-US-D99-A-01.0 Location: Western Branch F-7 East
 Project ID: Project ID 2: Project ID 3:
 Study Director: Sponsor Contact:
 Investigator (Creator): Dr. Mark M. Loux

Cooperator Trial ID:
 Trial Year: 2030

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	CHEAL	AMARE	ABUTH	POLPY
Pest Name	Giant ragweed	common lambsqua	Redroot pigweed	velvetleaf	annual smartweed
Crop Type, Code					
Crop Name					
Rating Date	Jun-22-2022	Jun-22-2022	Jun-22-2022	Jun-22-2022	Jun-22-2022
SE Group No.	32	34	38	35	36
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Number of Subsamples	1	1	1	1	1
Data Entry Date	Jun-21-2022	Jun-21-2022	Jul-18-2022	Jun-21-2022	Jun-21-2022
Days After First/Last Applic.	55, 55	55, 55	55, 55	55, 55	55, 55
Trt-Eval Interval	55 DA-A	55 DA-A	55 DA-A	55 DA-A	55 DA-A
Plant-Eval Interval	56 DP-1	56 DP-1	56 DP-1	56 DP-1	56 DP-1
Days After Emergence	37 DE-1	37 DE-1	37 DE-1	37 DE-1	37 DE-1
Number of Decimals	0	0	0	0	0
Trt Treatment	31*	32*	33*	34*	35*
No. Name					
Rate					
Unit					
Code					
6 Panther Pro	15 fl oz/a A	37 a	100-	100-	100-
LSD P=.05	9.8	.	.	.	.
Standard Deviation	5.4	0.0	0.0	0.0	0.0
CV	21.03	0.0	0.0	0.0	0.0
Grand Mean	25.6	83.3	83.3	83.3	83.3
Levene's F^	0.213	.	.	.	.
Levene's Prob(F)	0.95	.	.	.	.
Rank X2	.	.	.	.	.
P(Rank X2)	.	.	.	.	.
Skewness^	0.5365	.	.	.	.
Kurtosis^	-0.5306	.	.	.	.
Replicate F	3.077	0.000	0.000	0.000	0.000
Replicate Prob(F)	0.0909	1.0000	1.0000	1.0000	1.0000
Treatment F	22.000	0.000	0.000	0.000	0.000
Treatment Prob(F)	0.0001	1.0000	1.0000	1.0000	1.0000

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ZIDUA PRO COMPETITOR WEED CONTROL AND CROP SAFETY

Trial ID: 22BASFPRESOY
 Protocol ID: MKD-H-2022-US-D99-A-01.0 Location: Western Branch F-7 East
 Project ID: Project ID 2: Project ID 3: Cooperator Trial ID:
 Study Director: Sponsor Contact: Trial Year: 2030
 Investigator (Creator): Dr. Mark M. Loux

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, Giant foxtail = US
 AMBTR, Ambrosia trifida, Giant ragweed = US
 CHEAL, Chenopodium album, common lambsquarters = US
 ABUTH, Abutilon theophrasti, velvetleaf = US
 POLPY, Persicaria pensylvanica, annual smartweed = US
 AMARE, Amaranthus retroflexus, Redroot pigweed = US
 ECHCG, Echinochloa crus-galli, common barnyardgrass = US

Crop Type Code

C = EPPO species (Bayer) codes
 GLXMA, BSOY, Glycine max, Soybean = US

Rating Type

PHYGEN = phytotoxicity - general / injury
 CONTRO = control / burndown or knockdown
 PHYLMA = phytotoxicity - leaf malformation

Rating Unit/Min/Max

%, 0, 100 = percent

Plant-Eval Interval

22 DP-1 = 1 GLXMA Apr-27-2022
 29 DP-1 = 1 GLXMA Apr-27-2022
 35 DP-1 = 1 GLXMA Apr-27-2022
 41 DP-1 = 1 GLXMA Apr-27-2022
 56 DP-1 = 1 GLXMA Apr-27-2022