

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Crop Description

Crop 1: CGLXMA Glycine max Soybean BBCH Scale: BSOY
 Crop Group: P Stage Scale: BBCH
 Variety: AG35XF1
 Attributes: RR+LL+DIC
 Seed Lot No: WN1SBT1WN1
 % Germination: 85
 1000 Grain Weight: 0.38 LB
 Seed Treatment Products: Acceleron
 Planting Rate: 407700 S/HA
 Planting Date: Apr-27-2022
 Depth: 3.81 CM
 Rows per Plot: 8
 Row Spacing: 38.1 CM
 Planting Method: PLANTD planted
 Planting Equipment: PP plot planter
 Seed Bed: MEDIUM medium
 Soil Moisture: SLIDRY slightly dry
 Soil Temperature: 11.11 C
 Emergence Date: May-16-2022
 Planting Stage: 00

Pest Description

Pest 1 Type: W Code: SETFA Setaria faberi
 Common Name: Giant foxtail Stage Scale: BBCH
 Pest 2 Type: W Code: ECHCG Echinochloa crus-galli
 Common Name: common barnyardgrass Stage Scale: BBCH
 Pest 3 Type: W Code: SETLU Setaria pumila
 Common Name: foxtail, yellow Stage Scale: BBCH
 Pest 4 Type: W Code: AMBTR Ambrosia trifida
 Common Name: Giant ragweed Stage Scale: BBCH
 Pest 5 Type: W Code: CHEAL Chenopodium album
 Common Name: common lambsquarters Stage Scale: BBCH
 Pest 6 Type: W Code: AMARE Amaranthus retroflexus
 Common Name: Redroot pigweed Stage Scale: BBCH
 Pest 7 Type: W Code: IPOSS Ipomoea sp.
 Common Name: Morning glory 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 Tillage Type: CONTIL conventional-till
 Replications: 4 Treatments: 16 Plots: 64 Study Design: RACOB L Randomized Complete Block (RCB)
 Untreated Arrangement: INCLUDED

Previous Previous
 No. Crop Pest Type Year
 1. ZEAMD C 2021

Soil Description

Description Name: Big E
 % Sand: 44 % OM: 3.1 Texture: SICL silty clay loam
 % Silt: 45 Soil Name: Kokomo, Big E
 % Clay: 11 Fert. Level: G good
 pH: 6.6 CEC: 15
 Soil Drainage: G good

Application Description

Application Date May-24-2022 A
 Appl. Start Time 1:00 AM
 Appl. Stop Time 1:30 AM
 Application Method SPRAY
 Application Timing EAPOCR
 Application Placement BROFOL
 Applied By ESSMAN
 Air Temperature Start, Stop 20, 21 C
 % Relative Humidity Start, Stop 42, 42
 Wind Velocity+Dir. Start 10 MPS, NE
 Wind Velocity+Dir. Stop 10 MPS, NE
 Wind Velocity+Dir. Max 10 MPS, NE
 Wet Leaves (Y/N) N, no
 Soil Temperature 20.56 C
 Soil Moisture DRY
 Soil Surface Condition MEDTRA
 % Cloud Cover 25
 Next Moisture Occurred On May-24-2022
 Time to Next Moisture 1.0 DAY
 Moisture 6 Hours after Appl. 0 IN
 Moisture 1 Week after Appl. 1.23 IN

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Crop Stage At Each Application

Crop 1 Code, BBCH Scale A
 GLXMA, BSOY
 Days after Emergence 8
 Stage Majority, Percent 14, 100
 Height Average 3 IN
 Height Minimum, Maximum 2, 3

Pest Stage At Each Application

Pest 1 Code, Type, Scale A
 SETFA, W, BBCH
 Stage Majority, Percent 12, 80
 Stage Minimum, Percent 12, 80
 Stage Maximum, Percent 13, 10
 Height Average 3 IN
 Height Minimum, Maximum 1, 3
 Density Average 196 PLA/m2
 Density Minimum, Maximum 125, 213
 Pest 2 Code, Type, Scale
 ECHCG, W, BBCH
 Stage Majority, Percent 12, 80
 Stage Minimum, Percent 12, 80
 Stage Maximum, Percent 13, 10
 Height Average 3 IN
 Height Minimum, Maximum 1, 3
 Density Average 87 PLA/m2
 Pest 3 Code, Type, Scale A
 SETLU, W, BBCH
 Stage Majority, Percent 15, 80
 Stage Minimum, Percent 13, 10
 Stage Maximum, Percent 15, 80
 Height Average 2 IN
 Height Minimum, Maximum 1, 2
 Density Average 25 PLA/m2
 Density Minimum, Maximum 12, 30
 Pest 4 Code, Type, Scale
 AMBTR, W, BBCH
 Stage Majority, Percent 14, 80
 Stage Minimum, Percent 14, 80
 Stage Maximum, Percent 16, 20
 Height Average 3 IN
 Height Minimum, Maximum 2, 3
 Density Average 12 PLA/M2
 Density Minimum, Maximum 8, 20
 Pest 5 Code, Type, Scale
 CHEAL, W, BBCH
 Stage Majority, Percent 14, 80
 Stage Minimum, Percent 14, 80
 Stage Maximum, Percent 16, 10
 Height Average 1 IN
 Height Minimum, Maximum 1, 4
 Density Average 20 PLA/M2
 Density Minimum, Maximum 6, 25
 Pest 6 Code, Type, Scale
 AMARE, W, BBCH
 Stage Majority, Percent 14, 80
 Stage Minimum, Percent 12, 10
 Stage Maximum, Percent 16, 10
 Height Average 1 IN
 Height Minimum, Maximum 0.5, 2
 Density Average 5 PLA/M2
 Density Minimum, Maximum 0, 12
 Pest 7 Code, Type, Scale
 IPOSS, W, BBCH
 Stage Majority, Percent 12, 100
 Height Average 1 IN
 Height Minimum, Maximum 0.5, 1
 Density Average 3 PLA/M2
 Density Minimum, Maximum 0, 5

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Application Equipment

Appl. Equipment A
 Equipment Type BACCAI
 Operation Pressure 44 PSI
 Nozzle Model 1110015
 Nozzle Type TTI
 Nozzle Tip Size, Color 015, GREEN
 Nozzle Spacing 18 IN
 Boom Length 6.67 FT
 Boom Height 20 IN
 Ground Speed 3 MPH
 Carrier WATER
 Water Hardness (ppm CaCO3) 250
 Application Amount 15 GAL/AC
 Minimum Mix/Treatment 1.0433 L
 Mix Size 1 L
 Spray pH 7.8
 Propellant COMCO2

Pest Type

Pest Code	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
Pest Name	BSOY	BSOY	BSOY	BSOY	BSOY
Crop Type, Code	Soybean	Soybean	Soybean	Soybean	Soybean
BBCH Scale	1	1	1	1	2
Crop Name	PE12AD1	PE12AD1	PE12AD1	PE12AD1	PE12AD1
Rating Date	Jun-2-2022	Jun-2-2022	Jun-2-2022	Jun-2-2022	Jun-7-2022
SE Group No.	1	1	1	1	2
SE Name	PE12AD1	PE12AD1	PE12AD1	PE12AD1	PE12AD1
SE Description	Estimation % ph>	Estimation % ph>	Estimation % ph>	Estimation % ph>	Estimation % ph>
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -
Rating Type	PHYSTU	PHYCHL	PHYNEC	PHYDEF	PHYSTU
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Days After First/Last Applic.	9, 9	9, 9	9, 9	9, 9	14, 14
Trt-Eval Interval	9 DA-A	9 DA-A	9 DA-A	9 DA-A	14 DA-A
Plant-Eval Interval	36 DP-1	36 DP-1	36 DP-1	36 DP-1	41 DP-1
Days After Emergence	17 DE-1	17 DE-1	17 DE-1	17 DE-1	22 DE-1
ARM Action Codes	P	P	P	P	P
Number of Decimals	0	0	0	0	0

Trt Treatment No. Name	Rate Unit	Appl Code	1*	2*	3*	4*	5*
1 UNTREATED			0-	0-	0bc	0c	0-
2 WARRANT	1259g ai/ha A		0-	0-	1abc	0c	0-
2 ROUNDUP POWERMAX 3	1260g ai/ha A						
2 N-PAK AMS LIQUID	2.5% v/v A						
3 MON 301668	1260g ai/ha A		0-	0-	0bc	1abc	0-
3 ROUNDUP POWERMAX 3	1260g ai/ha A						
3 N-PAK AMS LIQUID	2.5% v/v A						
4 ACC 553 CS 9205	1260g ai/ha A		0-	0-	0c	0c	0-
4 ROUNDUP POWERMAX 3	1260g ai/ha A						
4 N-PAK AMS LIQUID	2.5% v/v A						
5 ACC 553 CS 9206	1260g ai/ha A		0-	0-	1abc	1abc	0-
5 ROUNDUP POWERMAX 3	1260g ai/ha A						
5 N-PAK AMS LIQUID	2.5% v/v A						
6 DUAL MAGNUM	1066g ai/ha A		0-	0-	1abc	2a	0-
6 ROUNDUP POWERMAX 3	1260g ai/ha A						
6 N-PAK AMS LIQUID	2.5% v/v A						
7 WARRANT	1259g ai/ha A		0-	0-	2a	1ab	0-
7 ROUNDUP POWERMAX 3	1260g ai/ha A						
7 LIBERTY 280	655g ai/ha A						
7 N-PAK AMS LIQUID	2.5% v/v A						

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Pest Type	Crop Type, Code	Rating Date	SE Group No.	SE Name	SE Description	Part Rated	Rating Type	Rating Unit/Min/Max	Sample Size	Number of Subsamples	Days After First/Last Applic.	Trt-Eval Interval	Plant-Eval Interval	Days After Emergence	ARM Action Codes	Number of Decimals
	C, GLXMA BSOY Soybean	Jun-2-2022	1	PE12AD1	Estimation % ph>	PLANT, -	PHYSTU	% , 0, 100	1 PLOT	1	9, 9	9 DA-A	36 DP-1	17 DE-1	P	0
	C, GLXMA BSOY Soybean	Jun-2-2022	1	PE12AD1	Estimation % ph>	PLANT, -	PHYCHL	% , 0, 100	1 PLOT	1	9, 9	9 DA-A	36 DP-1	17 DE-1	P	0
	C, GLXMA BSOY Soybean	Jun-2-2022	1	PE12AD1	Estimation % ph>	PLANT, -	PHYNEC	% , 0, 100	1 PLOT	1	9, 9	9 DA-A	36 DP-1	17 DE-1	P	0
	C, GLXMA BSOY Soybean	Jun-2-2022	1	PE12AD1	Estimation % ph>	PLANT, -	PHYDEF	% , 0, 100	1 PLOT	1	9, 9	9 DA-A	36 DP-1	17 DE-1	P	0
	C, GLXMA BSOY Soybean	Jun-7-2022	2	PE12AD1	Estimation % ph>	PLANT, -	PHYSTU	% , 0, 100	1 PLOT	1	14, 14	14 DA-A	41 DP-1	22 DE-1	P	0
Trt Treatment No. Name	Rate	Appl Code	1*	2*	3*	4*	5*									
8 MON 301668	1260g ai/ha A		0-	0-	2ab	1abc	0-									
8 ROUNDUP POWERMAX 3	1260g ai/ha A															
8 LIBERTY 280	655g ai/ha A															
8 N-PAK AMS LIQUID	2.5% v/v A															
9 ACC 553 CS 9205	1260g ai/ha A		0-	0-	1abc	1ab	0-									
9 ROUNDUP POWERMAX 3	1260g ai/ha A															
9 LIBERTY 280	655g ai/ha A															
9 N-PAK AMS LIQUID	2.5% v/v A															
10 ACC 553 CS 9206	1260g ai/ha A		0-	0-	1abc	0bc	0-									
10 ROUNDUP POWERMAX 3	1260g ai/ha A															
10 LIBERTY 280	655g ai/ha A															
10 N-PAK AMS LIQUID	2.5% v/v A															
11 DUAL MAGNUM	1066g ai/ha A		0-	0-	1abc	1abc	0-									
11 ROUNDUP POWERMAX 3	1260g ai/ha A															
11 LIBERTY 280	655g ai/ha A															
11 N-PAK AMS LIQUID	2.5% v/v A															
12 WARRANT	1259g ai/ha A		0-	0-	1abc	0c	0-									
12 ROUNDUP POWERMAX 3	1260g ai/ha A															
12 XTENDIMAX VAPORGRIP	562.6g ai/ha A															
12 INTACT	0.5% v/v A															
12 VAPORGRIP XTRA AGENT	576g ai/ha A															
12 CLASS ACT RIDION	1% v/v A															
13 MON 301668	1260g ai/ha A		0-	0-	1abc	1abc	0-									
13 ROUNDUP POWERMAX 3	1260g ai/ha A															
13 XTENDIMAX VAPORGRIP	562.6g ai/ha A															
13 INTACT	0.5% v/v A															
13 VAPORGRIP XTRA AGENT	576g ai/ha A															
13 CLASS ACT RIDION	1% v/v A															
14 ACC 553 CS 9205	1260g ai/ha A		0-	0-	1abc	0c	0-									
14 ROUNDUP POWERMAX 3	1260g ai/ha A															
14 XTENDIMAX VAPORGRIP	562.6g ai/ha A															
14 INTACT	0.5% v/v A															
14 VAPORGRIP XTRA AGENT	576g ai/ha A															
14 CLASS ACT RIDION	1% v/v A															
15 ACC 553 CS 9206	1260g ai/ha A		0-	0-	1abc	0c	0-									
15 ROUNDUP POWERMAX 3	1260g ai/ha A															
15 XTENDIMAX VAPORGRIP	562.6g ai/ha A															
15 INTACT	0.5% v/v A															
15 VAPORGRIP XTRA AGENT	576g ai/ha A															
15 CLASS ACT RIDION	1% v/v A															

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Pest Type	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
Pest Code	BSOY	BSOY	BSOY	BSOY	BSOY
Pest Name	Soybean	Soybean	Soybean	Soybean	Soybean
Crop Type, Code	Jun-2-2022	Jun-2-2022	Jun-2-2022	Jun-2-2022	Jun-7-2022
BBCH Scale	1	1	1	1	2
Crop Name	PE12AD1	PE12AD1	PE12AD1	PE12AD1	PE12AD1
Rating Date	Estimation % ph>	Estimation % ph>	Estimation % ph>	Estimation % ph>	Estimation % ph>
SE Group No.	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -
SE Name	PHYSTU	PHYCHL	PHYNEC	PHYDEF	PHYSTU
SE Description	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Part Rated	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Rating Type	1	1	1	1	1
Rating Unit/Min/Max	9, 9	9, 9	9, 9	9, 9	14, 14
Sample Size	9 DA-A	9 DA-A	9 DA-A	9 DA-A	14 DA-A
Number of Subsamples	36 DP-1	36 DP-1	36 DP-1	36 DP-1	41 DP-1
Days After First/Last Applic.	17 DE-1	17 DE-1	17 DE-1	17 DE-1	22 DE-1
Trt-Eval Interval	P	P	P	P	P
Plant-Eval Interval	0	0	0	0	0
Days After Emergence					
ARM Action Codes					
Number of Decimals					
Trt Treatment	1*	2*	3*	4*	5*
No. Name	Rate	Rate	Rate	Rate	Rate
	Unit	Unit	Unit	Unit	Unit
	Code	Code	Code	Code	Code
16 DUAL MAGNUM	1066 g ai/ha A	0-	0-	1 abc	1 ab
16 ROUNDUP POWERMAX 3	1260 g ai/ha A				0-
16 XTENDIMAX VAPORGRIP	562.6 g ai/ha A				
16 INTACT	0.5% v/v A				
16 VAPORGRIP XTRA AGENT	576 g ai/ha A				
16 CLASS ACT RIDION	1% v/v A				
LSD P=.05	.	0.3	0.9	0.7	.
Standard Deviation	0.0	0.2	0.6	0.5	0.0
CV	0.0	386.44	69.18	91.73	0.0
Grand Mean	0.0	0.1	0.9	0.5	0.0
Levene's F^	.	0.543	0.346	1.129	.
Levene's Prob(F)	.	0.902	0.986	0.358	.
Rank X2	.	.	.	.	.
P(Rank X2)	.	.	.	.	.
Skewness^	.	1.8964*	0.475	0.1099	.
Kurtosis^	.	5.0865*	-0.1485	0.2917	.
Replicate F	0.000	2.143	11.290	4.649	0.000
Replicate Prob(F)	1.0000	0.1080	0.0001	0.0065	1.0000
Treatment F	0.000	0.857	2.788	5.035	0.000
Treatment Prob(F)	1.0000	0.6129	0.0040	0.0001	1.0000

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Trt No.	Treatment Name	Rate	Unit	Appl Code	6*	7*	8*	9*	10*
1	UNTREATED				0-	0cd	0d	0-	0-
2	WARRANT	1259g	ai/ha	A	0-	1bcd	0cd	0-	0-
2	ROUNDUP POWERMAX 3	1260g	ai/ha	A					
2	N-PAK AMS LIQUID	2.5%	v/v	A					
3	MON 301668	1260g	ai/ha	A	0-	0d	1bc	0-	0-
3	ROUNDUP POWERMAX 3	1260g	ai/ha	A					
3	N-PAK AMS LIQUID	2.5%	v/v	A					
4	ACC 553 CS 9205	1260g	ai/ha	A	0-	0d	0cd	0-	0-
4	ROUNDUP POWERMAX 3	1260g	ai/ha	A					
4	N-PAK AMS LIQUID	2.5%	v/v	A					
5	ACC 553 CS 9206	1260g	ai/ha	A	0-	0cd	1cd	0-	0-
5	ROUNDUP POWERMAX 3	1260g	ai/ha	A					
5	N-PAK AMS LIQUID	2.5%	v/v	A					
6	DUAL MAGNUM	1066g	ai/ha	A	0-	2ab	2a	0-	0-
6	ROUNDUP POWERMAX 3	1260g	ai/ha	A					
6	N-PAK AMS LIQUID	2.5%	v/v	A					
7	WARRANT	1259g	ai/ha	A	0-	2ab	1bcd	0-	0-
7	ROUNDUP POWERMAX 3	1260g	ai/ha	A					
7	LIBERTY 280	655g	ai/ha	A					
7	N-PAK AMS LIQUID	2.5%	v/v	A					

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Pest Type	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA		
Pest Code							
Pest Name							
Crop Type, Code	BSOY	BSOY	BSOY	BSOY	BSOY		
BBCH Scale							
Crop Name	Soybean	Soybean	Soybean	Soybean	Soybean		
Rating Date	Jun-7-2022	Jun-7-2022	Jun-7-2022	Jun-14-2022	Jun-14-2022		
SE Group No.	2	2	2	3	3		
SE Name	PE12AD1	PE12AD1	PE12AD1	PE12AD1	PE12AD1		
SE Description	Estimation % ph>	Estimation % ph>	Estimation % ph>	Estimation % ph>	Estimation % ph>		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	PHYCHL	PHYNEC	PHYDEF	PHYSTU	PHYCHL		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Days After First/Last Applic.	14, 14	14, 14	14, 14	21, 21	21, 21		
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	21 DA-A	21 DA-A		
Plant-Eval Interval	41 DP-1	41 DP-1	41 DP-1	48 DP-1	48 DP-1		
Days After Emergence	22 DE-1	22 DE-1	22 DE-1	29 DE-1	29 DE-1		
ARM Action Codes	P	P	P	P	P		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl	6*	7*	8*	9*	10*
No. Name	Rate Unit	Code					
8 MON 301668	1260 g ai/ha A		0-	2a	1bc	0-	0-
8 ROUNDUP POWERMAX 3	1260 g ai/ha A						
8 LIBERTY 280	655 g ai/ha A						
8 N-PAK AMS LIQUID	2.5% v/v A						
9 ACC 553 CS 9205	1260 g ai/ha A		0-	2ab	1bc	0-	0-
9 ROUNDUP POWERMAX 3	1260 g ai/ha A						
9 LIBERTY 280	655 g ai/ha A						
9 N-PAK AMS LIQUID	2.5% v/v A						
10 ACC 553 CS 9206	1260 g ai/ha A		0-	1a-d	1bcd	0-	0-
10 ROUNDUP POWERMAX 3	1260 g ai/ha A						
10 LIBERTY 280	655 g ai/ha A						
10 N-PAK AMS LIQUID	2.5% v/v A						
11 DUAL MAGNUM	1066 g ai/ha A		0-	1a-d	1cd	0-	0-
11 ROUNDUP POWERMAX 3	1260 g ai/ha A						
11 LIBERTY 280	655 g ai/ha A						
11 N-PAK AMS LIQUID	2.5% v/v A						
12 WARRANT	1259 g ai/ha A		0-	0cd	1cd	0-	0-
12 ROUNDUP POWERMAX 3	1260 g ai/ha A						
12 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
12 INTACT	0.5% v/v A						
12 VAPORGRIP XTRA AGENT	576 g ai/ha A						
12 CLASS ACT RIDION	1% v/v A						
13 MON 301668	1260 g ai/ha A		0-	1bcd	1bcd	0-	0-
13 ROUNDUP POWERMAX 3	1260 g ai/ha A						
13 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
13 INTACT	0.5% v/v A						
13 VAPORGRIP XTRA AGENT	576 g ai/ha A						
13 CLASS ACT RIDION	1% v/v A						
14 ACC 553 CS 9205	1260 g ai/ha A		0-	1a-d	0cd	0-	0-
14 ROUNDUP POWERMAX 3	1260 g ai/ha A						
14 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
14 INTACT	0.5% v/v A						
14 VAPORGRIP XTRA AGENT	576 g ai/ha A						
14 CLASS ACT RIDION	1% v/v A						
15 ACC 553 CS 9206	1260 g ai/ha A		0-	1bcd	1cd	0-	0-
15 ROUNDUP POWERMAX 3	1260 g ai/ha A						
15 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
15 INTACT	0.5% v/v A						
15 VAPORGRIP XTRA AGENT	576 g ai/ha A						
15 CLASS ACT RIDION	1% v/v A						

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Pest Type	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA	C, GLXMA
Pest Code	BSOY	BSOY	BSOY	BSOY	BSOY
Pest Name	Soybean	Soybean	Soybean	Soybean	Soybean
Crop Type, Code	Jun-7-2022	Jun-7-2022	Jun-7-2022	Jun-14-2022	Jun-14-2022
BBCH Scale	2	2	2	3	3
Crop Name	PE12AD1	PE12AD1	PE12AD1	PE12AD1	PE12AD1
Rating Date	Estimation % ph>	Estimation % ph>	Estimation % ph>	Estimation % ph>	Estimation % ph>
SE Group No.	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -
SE Name	PHYCHL	PHYNEC	PHYDEF	PHYSTU	PHYCHL
SE Description	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Part Rated	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Rating Type	1	1	1	1	1
Rating Unit/Min/Max	14, 14	14, 14	14, 14	21, 21	21, 21
Sample Size	14 DA-A	14 DA-A	14 DA-A	21 DA-A	21 DA-A
Number of Subsamples	41 DP-1	41 DP-1	41 DP-1	48 DP-1	48 DP-1
Days After First/Last Applic.	22 DE-1	22 DE-1	22 DE-1	29 DE-1	29 DE-1
Trt-Eval Interval	P	P	P	P	P
Plant-Eval Interval	0	0	0	0	0
Days After Emergence					
ARM Action Codes					
Number of Decimals					

Trt Treatment No. Name	Rate	Appl Code	6*	7*	8*	9*	10*
16 DUAL MAGNUM	1066 g ai/ha A		0-	1 abc	2 ab	0-	0-
16 ROUNDUP POWERMAX 3	1260 g ai/ha A						
16 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
16 INTACT	0.5% v/v A						
16 VAPORGRIP XTRA AGENT	576 g ai/ha A						
16 CLASS ACT RIDION	1% v/v A						

LSD P=.05	0.2	0.7	0.7	.	.
Standard Deviation	0.1	0.5	0.5	0.0	0.0
CV	800.0	62.38	58.89	0.0	0.0
Grand Mean	0.0	0.8	0.8	0.0	0.0
Levene's F^	0.817	0.804	0.796	.	.
Levene's Prob(F)	0.655	0.667	0.676	.	.
Rank X2	.	.	.	.	.
P(Rank X2)	.	.	.	.	.
Skewness^	4.2748*	0.0879	0.4668	.	.
Kurtosis^	32.3903*	-0.4904	-0.7543	.	.
Replicate F	1.000	5.351	0.066	0.000	0.000
Replicate Prob(F)	0.4016	0.0031	0.9778	1.0000	1.0000
Treatment F	1.000	5.737	6.267	0.000	0.000
Treatment Prob(F)	0.4718	0.0001	0.0001	1.0000	1.0000

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX
 Protocol ID: Location: Big E
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type			W, Weed	W, Weed	W, Weed		
Pest Code			SETFA	SETPU	ECHSS		
Pest Name			Giant foxtail	yellow foxtail	Barnyardgrass		
Crop Type, Code	C, GLXMA	C, GLXMA					
BBCH Scale	BSOY	BSOY					
Crop Name	Soybean	Soybean					
Rating Date	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022		
SE Group No.	3	3	4	5	6		
SE Name	PE12AD1	PE12AD1	EE22AD3	EE22AD3	EE22AD3		
SE Description	Estimation % ph>	Estimation % ph>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	PHYNEC	PHYDEF	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
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	48 DP-1	48 DP-1	48 DP-1	48 DP-1	48 DP-1		
Days After Emergence	29 DE-1	29 DE-1	29 DE-1	29 DE-1	29 DE-1		
ARM Action Codes	P	P	P EC	P EC	P EC		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl	11*	12*	13*	14*	15*
No. Name	Rate Unit	Code					
1 UNTREATED			0-	0b	0	0	0
2 WARRANT	1259g ai/ha A		0-	1 ab	81 abc	78 abc	79 abc
2 ROUNDUP POWERMAX 3	1260g ai/ha A						
2 N-PAK AMS LIQUID	2.5% v/v A						
3 MON 301668	1260g ai/ha A		0-	2 ab	86 ab	79 ab	80 abc
3 ROUNDUP POWERMAX 3	1260g ai/ha A						
3 N-PAK AMS LIQUID	2.5% v/v A						
4 ACC 553 CS 9205	1260g ai/ha A		0-	1 ab	85 abc	79 ab	81 ab
4 ROUNDUP POWERMAX 3	1260g ai/ha A						
4 N-PAK AMS LIQUID	2.5% v/v A						
5 ACC 553 CS 9206	1260g ai/ha A		0-	1 ab	81 abc	74 abc	79 abc
5 ROUNDUP POWERMAX 3	1260g ai/ha A						
5 N-PAK AMS LIQUID	2.5% v/v A						
6 DUAL MAGNUM	1066g ai/ha A		0-	2 a	89 a	85 a	86 a
6 ROUNDUP POWERMAX 3	1260g ai/ha A						
6 N-PAK AMS LIQUID	2.5% v/v A						
7 WARRANT	1259g ai/ha A		0-	1 ab	86 ab	75 abc	81 ab
7 ROUNDUP POWERMAX 3	1260g ai/ha A						
7 LIBERTY 280	655g ai/ha A						
7 N-PAK AMS LIQUID	2.5% v/v A						

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX
 Protocol ID: Location: Big E
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	C, GLXMA	C, GLXMA	W, Weed SETFA Giant foxtail	W, Weed SETPU yellow foxtail	W, Weed ECHSS Barnyardgrass
Pest Code					
Pest Name					
Crop Type, Code	C, GLXMA	C, GLXMA			
BBCH Scale	BSOY	BSOY			
Crop Name	Soybean	Soybean			
Rating Date	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022
SE Group No.	3	3	4	5	6
SE Name	PE12AD1	PE12AD1	EE22AD3	EE22AD3	EE22AD3
SE Description	Estimation % ph>	Estimation % ph>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -
Rating Type	PHYNEC	PHYDEF	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
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	48 DP-1	48 DP-1	48 DP-1	48 DP-1	48 DP-1
Days After Emergence	29 DE-1	29 DE-1	29 DE-1	29 DE-1	29 DE-1
ARM Action Codes	P	P	P EC	P EC	P EC
Number of Decimals	0	0	0	0	0

Trt Treatment No. Name	Rate Rate Unit	Appl Code	11*	12*	13*	14*	15*
8 MON 301668	1260g ai/ha A		0-	2 ab	79 abc	75 abc	78 abc
8 ROUNDUP POWERMAX 3	1260g ai/ha A						
8 LIBERTY 280	655g ai/ha A						
8 N-PAK AMS LIQUID	2.5% v/v A						
9 ACC 553 CS 9205	1260g ai/ha A		0-	0 b	80 abc	71 bcd	71 abc
9 ROUNDUP POWERMAX 3	1260g ai/ha A						
9 LIBERTY 280	655g ai/ha A						
9 N-PAK AMS LIQUID	2.5% v/v A						
10 ACC 553 CS 9206	1260g ai/ha A		0-	1 ab	80 abc	71 bcd	74 abc
10 ROUNDUP POWERMAX 3	1260g ai/ha A						
10 LIBERTY 280	655g ai/ha A						
10 N-PAK AMS LIQUID	2.5% v/v A						
11 DUAL MAGNUM	1066g ai/ha A		0-	0 b	73 bc	65 cd	69 bc
11 ROUNDUP POWERMAX 3	1260g ai/ha A						
11 LIBERTY 280	655g ai/ha A						
11 N-PAK AMS LIQUID	2.5% v/v A						
12 WARRANT	1259g ai/ha A		0-	0 b	74 abc	65 cd	69 bc
12 ROUNDUP POWERMAX 3	1260g ai/ha A						
12 XTENDIMAX VAPORGRIP	562.6g ai/ha A						
12 INTACT	0.5% v/v A						
12 VAPORGRIP XTRA AGENT	576g ai/ha A						
12 CLASS ACT RIDION	1% v/v A						
13 MON 301668	1260g ai/ha A		0-	1 ab	78 abc	69 bcd	73 abc
13 ROUNDUP POWERMAX 3	1260g ai/ha A						
13 XTENDIMAX VAPORGRIP	562.6g ai/ha A						
13 INTACT	0.5% v/v A						
13 VAPORGRIP XTRA AGENT	576g ai/ha A						
13 CLASS ACT RIDION	1% v/v A						
14 ACC 553 CS 9205	1260g ai/ha A		0-	0 b	73 bc	61 d	64 c
14 ROUNDUP POWERMAX 3	1260g ai/ha A						
14 XTENDIMAX VAPORGRIP	562.6g ai/ha A						
14 INTACT	0.5% v/v A						
14 VAPORGRIP XTRA AGENT	576g ai/ha A						
14 CLASS ACT RIDION	1% v/v A						
15 ACC 553 CS 9206	1260g ai/ha A		0-	0 b	70 c	66 bcd	70 abc
15 ROUNDUP POWERMAX 3	1260g ai/ha A						
15 XTENDIMAX VAPORGRIP	562.6g ai/ha A						
15 INTACT	0.5% v/v A						
15 VAPORGRIP XTRA AGENT	576g ai/ha A						
15 CLASS ACT RIDION	1% v/v A						

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type			W, Weed	W, Weed	W, Weed		
Pest Code			SETFA	SETPU	ECHSS		
Pest Name			Giant foxtail	yellow foxtail	Barnyardgrass		
Crop Type, Code	C, GLXMA	C, GLXMA					
BBCH Scale	BSOY	BSOY					
Crop Name	Soybean	Soybean					
Rating Date	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022		
SE Group No.	3	3	4	5	6		
SE Name	PE12AD1	PE12AD1	EE22AD3	EE22AD3	EE22AD3		
SE Description	Estimation % ph>	Estimation % ph>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	PHYNEC	PHYDEF	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
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	48 DP-1	48 DP-1	48 DP-1	48 DP-1	48 DP-1		
Days After Emergence	29 DE-1	29 DE-1	29 DE-1	29 DE-1	29 DE-1		
ARM Action Codes	P	P	P EC	P EC	P EC		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl	11*	12*	13*	14*	15*
No. Name	Rate Unit	Code					
16 DUAL MAGNUM	1066 g ai/ha A		0-	0b	83 abc	75 abc	78 abc
16 ROUNDUP POWERMAX 3	1260 g ai/ha A						
16 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
16 INTACT	0.5% v/v A						
16 VAPORGRIP XTRA AGENT	576 g ai/ha A						
16 CLASS ACT RIDION	1% v/v A						
LSD P=.05				1.1	9.1	7.8	9.9
Standard Deviation			0.0	0.8	6.4	5.5	7.0
CV			0.0	106.12	8.03	7.57	9.23
Grand Mean			0.0	0.7	79.8	72.5	75.3
Levene's F^			.	0.657	1.946	0.717	1.17
Levene's Prob(F)			.	0.812	0.046*	0.746	0.33
Rank X2			.	.	.	.	.
P(Rank X2)			.	.	.	.	.
Skewness^			.	0.3688	-0.158	0.2468	-0.2825
Kurtosis^			.	0.0747	3.3791*	1.3293*	0.4652
Replicate F			0.000	9.837	2.095	1.197	2.388
Replicate Prob(F)			1.0000	0.0001	0.1153	0.3224	0.0824
Treatment F			0.000	2.990	3.116	5.447	3.109
Treatment Prob(F)			1.0000	0.0023	0.0022	0.0001	0.0022

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX
 Protocol ID: Location: Big E
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

	W, Weed AMBTR	W, Weed CHEAL	W, Weed AMARE	W, Weed CONSS	W, Weed SETFA		
Pest Type	Giant ragweed	common lambsqua	Redroot pigweed	Morningglory	Giant foxtail		
Pest Code							
Pest Name							
Crop Type, Code							
BBCH Scale							
Crop Name							
Rating Date	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-21-2022		
SE Group No.	7	8	9	10	11		
SE Name	EE22AD3	EE22AD3	EE22AD3	EE22AD3	EE22AD3		
SE Description	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	28, 28		
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	28 DA-A		
Plant-Eval Interval	48 DP-1	48 DP-1	48 DP-1	48 DP-1	55 DP-1		
Days After Emergence	29 DE-1	29 DE-1	29 DE-1	29 DE-1	36 DE-1		
ARM Action Codes	P EC	P EC	P EC	P EC	P EC		
Number of Decimals	0	0	0	0	0		
Trt Treatment No. Name	Rate Unit	Appl Code	16*	17*	18*	19*	20*
1 UNTREATED			0	0	0	0	0
2 WARRANT	1259g ai/ha A		76-	80-	96a	85-	81ab
2 ROUNDUP POWERMAX 3	1260g ai/ha A						
2 N-PAK AMS LIQUID	2.5% v/v A						
3 MON 301668	1260g ai/ha A		80-	78-	100a	86-	86ab
3 ROUNDUP POWERMAX 3	1260g ai/ha A						
3 N-PAK AMS LIQUID	2.5% v/v A						
4 ACC 553 CS 9205	1260g ai/ha A		76-	79-	100a	98-	86ab
4 ROUNDUP POWERMAX 3	1260g ai/ha A						
4 N-PAK AMS LIQUID	2.5% v/v A						
5 ACC 553 CS 9206	1260g ai/ha A		71-	76-	100a	90-	84ab
5 ROUNDUP POWERMAX 3	1260g ai/ha A						
5 N-PAK AMS LIQUID	2.5% v/v A						
6 DUAL MAGNUM	1066g ai/ha A		74-	79-	100a	99-	91a
6 ROUNDUP POWERMAX 3	1260g ai/ha A						
6 N-PAK AMS LIQUID	2.5% v/v A						
7 WARRANT	1259g ai/ha A		76-	78-	100a	89-	86ab
7 ROUNDUP POWERMAX 3	1260g ai/ha A						
7 LIBERTY 280	655g ai/ha A						
7 N-PAK AMS LIQUID	2.5% v/v A						

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	AMBTR	CHEAL	AMARE	CONSS	SETFA		
Pest Name	Giant ragweed	common lambsqua	Redroot pigweed	Morningglory	Giant foxtail		
Crop Type, Code							
BBCH Scale							
Crop Name							
Rating Date	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-21-2022		
SE Group No.	7	8	9	10	11		
SE Name	EE22AD3	EE22AD3	EE22AD3	EE22AD3	EE22AD3		
SE Description	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	28, 28		
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	28 DA-A		
Plant-Eval Interval	48 DP-1	48 DP-1	48 DP-1	48 DP-1	55 DP-1		
Days After Emergence	29 DE-1	29 DE-1	29 DE-1	29 DE-1	36 DE-1		
ARM Action Codes	P EC	P EC	P EC	P EC	P EC		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl	16*	17*	18*	19*	20*
No. Name	Rate Unit	Code					
8 MON 301668	1260 g ai/ha A		78-	70-	100a	95-	83ab
8 ROUNDUP POWERMAX 3	1260 g ai/ha A						
8 LIBERTY 280	655 g ai/ha A						
8 N-PAK AMS LIQUID	2.5% v/v A						
9 ACC 553 CS 9205	1260 g ai/ha A		80-	76-	89a	88-	81ab
9 ROUNDUP POWERMAX 3	1260 g ai/ha A						
9 LIBERTY 280	655 g ai/ha A						
9 N-PAK AMS LIQUID	2.5% v/v A						
10 ACC 553 CS 9206	1260 g ai/ha A		75-	75-	100a	91-	84ab
10 ROUNDUP POWERMAX 3	1260 g ai/ha A						
10 LIBERTY 280	655 g ai/ha A						
10 N-PAK AMS LIQUID	2.5% v/v A						
11 DUAL MAGNUM	1066 g ai/ha A		81-	71-	78b	93-	76b
11 ROUNDUP POWERMAX 3	1260 g ai/ha A						
11 LIBERTY 280	655 g ai/ha A						
11 N-PAK AMS LIQUID	2.5% v/v A						
12 WARRANT	1259 g ai/ha A		78-	85-	100a	95-	78b
12 ROUNDUP POWERMAX 3	1260 g ai/ha A						
12 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
12 INTACT	0.5% v/v A						
12 VAPORGRIP XTRA AGENT	576 g ai/ha A						
12 CLASS ACT RIDION	1% v/v A						
13 MON 301668	1260 g ai/ha A		91-	64-	100a	75-	81ab
13 ROUNDUP POWERMAX 3	1260 g ai/ha A						
13 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
13 INTACT	0.5% v/v A						
13 VAPORGRIP XTRA AGENT	576 g ai/ha A						
13 CLASS ACT RIDION	1% v/v A						
14 ACC 553 CS 9205	1260 g ai/ha A		83-	78-	95a	95-	78b
14 ROUNDUP POWERMAX 3	1260 g ai/ha A						
14 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
14 INTACT	0.5% v/v A						
14 VAPORGRIP XTRA AGENT	576 g ai/ha A						
14 CLASS ACT RIDION	1% v/v A						
15 ACC 553 CS 9206	1260 g ai/ha A		83-	93-	95a	98-	79ab
15 ROUNDUP POWERMAX 3	1260 g ai/ha A						
15 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
15 INTACT	0.5% v/v A						
15 VAPORGRIP XTRA AGENT	576 g ai/ha A						
15 CLASS ACT RIDION	1% v/v A						

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed
Pest Code	AMBTR	CHEAL	AMARE	CONSS	SETFA
Pest Name	Giant ragweed	common lambsqua	Redroot pigweed	Morningglory	Giant foxtail
Crop Type, Code					
BBCH Scale					
Crop Name					
Rating Date	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-14-2022	Jun-21-2022
SE Group No.	7	8	9	10	11
SE Name	EE22AD3	EE22AD3	EE22AD3	EE22AD3	EE22AD3
SE Description	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1	1	1
Days After First/Last Applic.	21, 21	21, 21	21, 21	21, 21	28, 28
Trt-Eval Interval	21 DA-A	21 DA-A	21 DA-A	21 DA-A	28 DA-A
Plant-Eval Interval	48 DP-1	48 DP-1	48 DP-1	48 DP-1	55 DP-1
Days After Emergence	29 DE-1	29 DE-1	29 DE-1	29 DE-1	36 DE-1
ARM Action Codes	P EC	P EC	P EC	P EC	P EC
Number of Decimals	0	0	0	0	0
Trt Treatment					
No. Name	Rate Unit	Rate Unit	Rate Unit	Rate Unit	Rate Unit
16 DUAL MAGNUM	1066 g ai/ha A				
16 ROUNDUP POWERMAX 3	1260 g ai/ha A				
16 XTENDIMAX VAPORGRIP	562.6 g ai/ha A				
16 INTACT	0.5% v/v A				
16 VAPORGRIP XTRA AGENT	576 g ai/ha A				
16 CLASS ACT RIDION	1% v/v A				
		16*	17*	18*	19*
		20*			
		76-	90-	90a	100-
					83ab
LSD P=.05	13.7	20.1	8.7	23.0	7.8
Standard Deviation	9.6	14.1	6.1	16.1	5.4
CV	12.22	18.07	6.37	17.57	6.61
Grand Mean	78.5	78.0	96.2	91.7	82.4
Levene's F^	0.851	1.166	1.226	0.777	0.698
Levene's Prob(F)	0.613	0.333	0.291	0.687	0.764
Rank X2	.	.	.	.	.
P(Rank X2)	.	.	.	.	.
Skewness^	0.2984	-2.2314*	-1.2039*	-2.7607*	0.1969
Kurtosis^	-0.1542	14.1943*	2.9769*	16.1784*	-0.3593
Replicate F	5.560	1.292	1.675	0.621	1.813
Replicate Prob(F)	0.0026	0.2896	0.1869	0.6052	0.1594
Treatment F	0.982	1.060	4.394	0.663	2.213
Treatment Prob(F)	0.4873	0.4185	0.0001	0.7953	0.0239

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX
 Protocol ID: Location: Big E
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	SETPU	ECHSS	AMBTR	CHEAL	AMARE		
Pest Name	yellow foxtail	Barnyardgrass	Giant ragweed common	lambsqua>	Redroot pigweed		
Crop Type, Code							
BBCH Scale							
Crop Name							
Rating Date	Jun-21-2022	Jun-21-2022	Jun-21-2022	Jun-21-2022	Jun-21-2022		
SE Group No.	12	13	14	15	16		
SE Name	EE22AD3	EE22AD3	EE22AD3	EE22AD3	EE22AD3		
SE Description	1 weed, % effi>	1 weed, % effi>	1 weed, % effi>	1 weed, % effi>	1 weed, % effi>		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Days After First/Last Applic.	28, 28	28, 28	28, 28	28, 28	28, 28		
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A		
Plant-Eval Interval	55 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1		
Days After Emergence	36 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1		
ARM Action Codes	P EC	P EC	P EC	P EC	P EC		
Number of Decimals	0	0	0	0	0		
Trt Treatment No. Name	Rate	Appl Code	21*	22*	23*	24*	25*
	Rate Unit						
1 UNTREATED			0	0	0	0	0
2 WARRANT	1259g ai/ha A		78bcd	71bc	78-	75bc	96a
2 ROUNDUP POWERMAX 3	1260g ai/ha A						
2 N-PAK AMS LIQUID	2.5% v/v A						
3 MON 301668	1260g ai/ha A		81a-d	76ab	75-	71bc	100a
3 ROUNDUP POWERMAX 3	1260g ai/ha A						
3 N-PAK AMS LIQUID	2.5% v/v A						
4 ACC 553 CS 9205	1260g ai/ha A		84ab	76ab	78-	75bc	96a
4 ROUNDUP POWERMAX 3	1260g ai/ha A						
4 N-PAK AMS LIQUID	2.5% v/v A						
5 ACC 553 CS 9206	1260g ai/ha A		76bcd	71bc	68-	73bc	98a
5 ROUNDUP POWERMAX 3	1260g ai/ha A						
5 N-PAK AMS LIQUID	2.5% v/v A						
6 DUAL MAGNUM	1066g ai/ha A		89a	84a	71-	76bc	96a
6 ROUNDUP POWERMAX 3	1260g ai/ha A						
6 N-PAK AMS LIQUID	2.5% v/v A						
7 WARRANT	1259g ai/ha A		80a-d	76ab	73-	75bc	100a
7 ROUNDUP POWERMAX 3	1260g ai/ha A						
7 LIBERTY 280	655g ai/ha A						
7 N-PAK AMS LIQUID	2.5% v/v A						

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	SETPU	ECHSS	AMBTR	CHEAL	AMARE		
Pest Name	yellow foxtail	Barnyardgrass	Giant ragweed	common lambsqua	Redroot pigweed		
Crop Type, Code							
BBCH Scale							
Crop Name							
Rating Date	Jun-21-2022	Jun-21-2022	Jun-21-2022	Jun-21-2022	Jun-21-2022		
SE Group No.	12	13	14	15	16		
SE Name	EE22AD3	EE22AD3	EE22AD3	EE22AD3	EE22AD3		
SE Description	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Days After First/Last Applic.	28, 28	28, 28	28, 28	28, 28	28, 28		
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A		
Plant-Eval Interval	55 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1		
Days After Emergence	36 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1		
ARM Action Codes	P EC	P EC	P EC	P EC	P EC		
Number of Decimals	0	0	0	0	0		
Trt Treatment No. Name	Rate	Appl Code	21*	22*	23*	24*	25*
8 MON 301668	1260 g ai/ha A		79bcd	73bc	76-	69c	96a
8 ROUNDUP POWERMAX 3	1260 g ai/ha A						
8 LIBERTY 280	655 g ai/ha A						
8 N-PAK AMS LIQUID	2.5% v/v A						
9 ACC 553 CS 9205	1260 g ai/ha A		74bcd	69bc	79-	76bc	89ab
9 ROUNDUP POWERMAX 3	1260 g ai/ha A						
9 LIBERTY 280	655 g ai/ha A						
9 N-PAK AMS LIQUID	2.5% v/v A						
10 ACC 553 CS 9206	1260 g ai/ha A		74bcd	70bc	74-	73bc	98a
10 ROUNDUP POWERMAX 3	1260 g ai/ha A						
10 LIBERTY 280	655 g ai/ha A						
10 N-PAK AMS LIQUID	2.5% v/v A						
11 DUAL MAGNUM	1066 g ai/ha A		71cd	63cde	81-	71bc	78b
11 ROUNDUP POWERMAX 3	1260 g ai/ha A						
11 LIBERTY 280	655 g ai/ha A						
11 N-PAK AMS LIQUID	2.5% v/v A						
12 WARRANT	1259 g ai/ha A		70d	59de	78-	86abc	100a
12 ROUNDUP POWERMAX 3	1260 g ai/ha A						
12 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
12 INTACT	0.5% v/v A						
12 VAPORGRIP XTRA AGENT	576 g ai/ha A						
12 CLASS ACT RIDION	1% v/v A						
13 MON 301668	1260 g ai/ha A		74bcd	69bc	84-	88abc	100a
13 ROUNDUP POWERMAX 3	1260 g ai/ha A						
13 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
13 INTACT	0.5% v/v A						
13 VAPORGRIP XTRA AGENT	576 g ai/ha A						
13 CLASS ACT RIDION	1% v/v A						
14 ACC 553 CS 9205	1260 g ai/ha A		71cd	55e	83-	78bc	95a
14 ROUNDUP POWERMAX 3	1260 g ai/ha A						
14 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
14 INTACT	0.5% v/v A						
14 VAPORGRIP XTRA AGENT	576 g ai/ha A						
14 CLASS ACT RIDION	1% v/v A						
15 ACC 553 CS 9206	1260 g ai/ha A		76bcd	66bcd	78-	94a	96a
15 ROUNDUP POWERMAX 3	1260 g ai/ha A						
15 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
15 INTACT	0.5% v/v A						
15 VAPORGRIP XTRA AGENT	576 g ai/ha A						
15 CLASS ACT RIDION	1% v/v A						

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed	
Pest Code	SETPU	ECHSS	AMBTR	CHEAL	AMARE	
Pest Name	yellow foxtail	Barnyardgrass	Giant ragweed	common lambsqua	Redroot pigweed	
Crop Type, Code						
BBCH Scale						
Crop Name						
Rating Date	Jun-21-2022	Jun-21-2022	Jun-21-2022	Jun-21-2022	Jun-21-2022	
SE Group No.	12	13	14	15	16	
SE Name	EE22AD3	EE22AD3	EE22AD3	EE22AD3	EE22AD3	
SE Description	1 weed, % effi<	1 weed, % effi<	1 weed, % effi<	1 weed, % effi<	1 weed, % effi<	
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -	
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO	
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT	
Number of Subsamples	1	1	1	1	1	
Days After First/Last Applic.	28, 28	28, 28	28, 28	28, 28	28, 28	
Trt-Eval Interval	28 DA-A	28 DA-A	28 DA-A	28 DA-A	28 DA-A	
Plant-Eval Interval	55 DP-1	55 DP-1	55 DP-1	55 DP-1	55 DP-1	
Days After Emergence	36 DE-1	36 DE-1	36 DE-1	36 DE-1	36 DE-1	
ARM Action Codes	P EC	P EC	P EC	P EC	P EC	
Number of Decimals	0	0	0	0	0	
Trt Treatment						
No. Name						
Rate						
Unit						
Appl Code						
21*						
22*						
23*						
24*						
25*						
16 DUAL MAGNUM	1066 g ai/ha A	83abc	73bc	75-	90ab	88ab
16 ROUNDUP POWERMAX 3	1260 g ai/ha A					
16 XTENDIMAX VAPORGRIP	562.6 g ai/ha A					
16 INTACT	0.5% v/v A					
16 VAPORGRIP XTRA AGENT	576 g ai/ha A					
16 CLASS ACT RIDION	1% v/v A					
LSD P=.05	6.6	7.0	13.4	11.2	10.1	
Standard Deviation	4.6	4.9	9.4	7.8	7.1	
CV	5.98	7.01	12.23	10.03	7.47	
Grand Mean	77.3	70.0	76.5	77.9	95.0	
Levene's F^	0.619	2.002	1.096	1.093	0.783	
Levene's Prob(F)	0.835	0.04*	0.386	0.39	0.682	
Rank X2	.	.	.	.	.
P(Rank X2)	.	.	.	.	.
Skewness^	0.1546	0.2348	0.2715	0.4033	-0.8712*	
Kurtosis^	-0.3297	0.2848	-0.3136	0.1339	0.6494	
Replicate F	2.522	0.691	4.027	3.898	1.657	
Replicate Prob(F)	0.0707	0.5625	0.0132	0.0152	0.1908	
Treatment F	5.246	8.852	0.838	3.838	2.964	
Treatment Prob(F)	0.0001	0.0001	0.6263	0.0004	0.0032	

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	CONSS	SETFA	SETPU	ECHSS	AMBTR		
Pest Name	Morningglory	Giant foxtail	yellow foxtail	Barnyardgrass	Giant ragweed		
Crop Type, Code							
BBCH Scale							
Crop Name							
Rating Date	Jun-21-2022	Jun-28-2022	Jun-28-2022	Jun-28-2022	Jun-28-2022		
SE Group No.	17	18	19	20	21		
SE Name	EE22AD3	EE22AD3	EE22AD3	EE22AD3	EE22AD3		
SE Description	1 weed, % effi<	1 weed, % effi<	1 weed, % effi<	1 weed, % effi<	1 weed, % effi<		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Days After First/Last Applic.	28, 28	35, 35	35, 35	35, 35	35, 35		
Trt-Eval Interval	28 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A		
Plant-Eval Interval	55 DP-1	62 DP-1	62 DP-1	62 DP-1	62 DP-1		
Days After Emergence	36 DE-1	43 DE-1	43 DE-1	43 DE-1	43 DE-1		
ARM Action Codes	P EC	P EC	P EC	P EC	P EC		
Number of Decimals	0	0	0	0	0		
Trt Treatment No. Name	Rate	Appl Code	26*	27*	28*	29*	30*
Rate Unit							
1 UNTREATED			0	0	0	0	0
2 WARRANT	1259g ai/ha A		85-	75bc	79bc	69bc	71-
2 ROUNDUP POWERMAX 3	1260g ai/ha A						
2 N-PAK AMS LIQUID	2.5% v/v A						
3 MON 301668	1260g ai/ha A		86-	83ab	83bc	73ab	73-
3 ROUNDUP POWERMAX 3	1260g ai/ha A						
3 N-PAK AMS LIQUID	2.5% v/v A						
4 ACC 553 CS 9205	1260g ai/ha A		98-	78bc	84b	74ab	71-
4 ROUNDUP POWERMAX 3	1260g ai/ha A						
4 N-PAK AMS LIQUID	2.5% v/v A						
5 ACC 553 CS 9206	1260g ai/ha A		89-	74bc	79bc	69bc	65-
5 ROUNDUP POWERMAX 3	1260g ai/ha A						
5 N-PAK AMS LIQUID	2.5% v/v A						
6 DUAL MAGNUM	1066g ai/ha A		99-	88a	90a	79a	66-
6 ROUNDUP POWERMAX 3	1260g ai/ha A						
6 N-PAK AMS LIQUID	2.5% v/v A						
7 WARRANT	1259g ai/ha A		86-	84ab	81bc	71abc	69-
7 ROUNDUP POWERMAX 3	1260g ai/ha A						
7 LIBERTY 280	655g ai/ha A						
7 N-PAK AMS LIQUID	2.5% v/v A						

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	CONSS	SETFA	SETPU	ECHSS	AMBTR		
Pest Name	Morningglory	Giant foxtail	yellow foxtail	Barnyardgrass	Giant ragweed		
Crop Type, Code							
BBCH Scale							
Crop Name							
Rating Date	Jun-21-2022	Jun-28-2022	Jun-28-2022	Jun-28-2022	Jun-28-2022		
SE Group No.	17	18	19	20	21		
SE Name	EE22AD3	EE22AD3	EE22AD3	EE22AD3	EE22AD3		
SE Description	1 weed, % effi<	1 weed, % effi<	1 weed, % effi<	1 weed, % effi<	1 weed, % effi<		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100	% , 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Days After First/Last Applic.	28, 28	35, 35	35, 35	35, 35	35, 35		
Trt-Eval Interval	28 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A		
Plant-Eval Interval	55 DP-1	62 DP-1	62 DP-1	62 DP-1	62 DP-1		
Days After Emergence	36 DE-1	43 DE-1	43 DE-1	43 DE-1	43 DE-1		
ARM Action Codes	P EC	P EC	P EC	P EC	P EC		
Number of Decimals	0	0	0	0	0		
Trt Treatment	Rate	Appl	26*	27*	28*	29*	30*
No. Name	Rate Unit	Code					
8 MON 301668	1260 g ai/ha A		96-	76 bc	80 bc	70 bc	70-
8 ROUNDUP POWERMAX 3	1260 g ai/ha A						
8 LIBERTY 280	655 g ai/ha A						
8 N-PAK AMS LIQUID	2.5% v/v A						
9 ACC 553 CS 9205	1260 g ai/ha A		85-	74 bc	78 bc	66 bc	65-
9 ROUNDUP POWERMAX 3	1260 g ai/ha A						
9 LIBERTY 280	655 g ai/ha A						
9 N-PAK AMS LIQUID	2.5% v/v A						
10 ACC 553 CS 9206	1260 g ai/ha A		86-	78 bc	76 bc	68 bc	73-
10 ROUNDUP POWERMAX 3	1260 g ai/ha A						
10 LIBERTY 280	655 g ai/ha A						
10 N-PAK AMS LIQUID	2.5% v/v A						
11 DUAL MAGNUM	1066 g ai/ha A		89-	69 c	73 c	63 cd	74-
11 ROUNDUP POWERMAX 3	1260 g ai/ha A						
11 LIBERTY 280	655 g ai/ha A						
11 N-PAK AMS LIQUID	2.5% v/v A						
12 WARRANT	1259 g ai/ha A		95-	70 c	74 bc	56 d	76-
12 ROUNDUP POWERMAX 3	1260 g ai/ha A						
12 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
12 INTACT	0.5% v/v A						
12 VAPORGRIP XTRA AGENT	576 g ai/ha A						
12 CLASS ACT RIDION	1% v/v A						
13 MON 301668	1260 g ai/ha A		99-	71 c	75 bc	66 bc	78-
13 ROUNDUP POWERMAX 3	1260 g ai/ha A						
13 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
13 INTACT	0.5% v/v A						
13 VAPORGRIP XTRA AGENT	576 g ai/ha A						
13 CLASS ACT RIDION	1% v/v A						
14 ACC 553 CS 9205	1260 g ai/ha A		95-	70 c	73 c	55 d	76-
14 ROUNDUP POWERMAX 3	1260 g ai/ha A						
14 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
14 INTACT	0.5% v/v A						
14 VAPORGRIP XTRA AGENT	576 g ai/ha A						
14 CLASS ACT RIDION	1% v/v A						
15 ACC 553 CS 9206	1260 g ai/ha A		96-	74 bc	78 bc	63 cd	73-
15 ROUNDUP POWERMAX 3	1260 g ai/ha A						
15 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
15 INTACT	0.5% v/v A						
15 VAPORGRIP XTRA AGENT	576 g ai/ha A						
15 CLASS ACT RIDION	1% v/v A						

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	W, Weed	W, Weed	W, Weed	W, Weed	W, Weed		
Pest Code	CONSS	SETFA	SETPU	ECHSS	AMBTR		
Pest Name	Morningglory	Giant foxtail	yellow foxtail	Barnyardgrass	Giant ragweed		
Crop Type, Code							
BBCH Scale							
Crop Name							
Rating Date	Jun-21-2022	Jun-28-2022	Jun-28-2022	Jun-28-2022	Jun-28-2022		
SE Group No.	17	18	19	20	21		
SE Name	EE22AD3	EE22AD3	EE22AD3	EE22AD3	EE22AD3		
SE Description	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>		
Part Rated	PLANT, -	PLANT, -	PLANT, -	PLANT, -	PLANT, -		
Rating Type	CONTRO	CONTRO	CONTRO	CONTRO	CONTRO		
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100	%, 0, 100		
Sample Size	1 PLOT	1 PLOT	1 PLOT	1 PLOT	1 PLOT		
Number of Subsamples	1	1	1	1	1		
Days After First/Last Applic.	28, 28	35, 35	35, 35	35, 35	35, 35		
Trt-Eval Interval	28 DA-A	35 DA-A	35 DA-A	35 DA-A	35 DA-A		
Plant-Eval Interval	55 DP-1	62 DP-1	62 DP-1	62 DP-1	62 DP-1		
Days After Emergence	36 DE-1	43 DE-1	43 DE-1	43 DE-1	43 DE-1		
ARM Action Codes	P EC	P EC	P EC	P EC	P EC		
Number of Decimals	0	0	0	0	0		
Trt Treatment							
No. Name	Rate Unit	Appl Code	26*	27*	28*	29*	30*
16 DUAL MAGNUM	1066 g ai/ha A		100-	75 bc	81 bc	69 bc	68-
16 ROUNDUP POWERMAX 3	1260 g ai/ha A						
16 XTENDIMAX VAPORGRIP	562.6 g ai/ha A						
16 INTACT	0.5% v/v A						
16 VAPORGRIP XTRA AGENT	576 g ai/ha A						
16 CLASS ACT RIDION	1% v/v A						
LSD P=.05	11.2	6.8	5.9	5.8	13.4		
Standard Deviation	7.9	4.8	4.2	4.0	9.4		
CV	8.52	6.28	5.28	6.0	13.19		
Grand Mean	92.3	75.8	78.8	67.3	71.1		
Levene's F^	0.655	1.80	0.48	2.381	1.619		
Levene's Prob(F)	0.804	0.069	0.932	0.014*	0.111		
Rank X2		
P(Rank X2)		
Skewness^	-0.2237	0.2996	0.0382	0.0816	0.1397		
Kurtosis^	-0.894	-0.1945	-0.5106	0.2669	0.4973		
Replicate F	7.297	1.197	2.534	0.708	5.175		
Replicate Prob(F)	0.0005	0.3224	0.0697	0.5528	0.0039		
Treatment F	2.115	5.084	5.069	9.658	0.730		
Treatment Prob(F)	0.0310	0.0001	0.0001	0.0001	0.7328		

The Ohio State University

High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX
 Protocol ID: _____ Location: Big E
 Project ID: MD-NATIONAL Project ID 2: _____ Project ID 3: _____
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

	W, Weed	W, Weed	W, Weed
Pest Type	CHEAL	AMARE	CONSS
Pest Code			
Pest Name	common lambsqua	Redroot pigweed	Morningglory
Crop Type, Code			
BBCH Scale			
Crop Name			
Rating Date	Jun-28-2022	Jun-28-2022	Jun-28-2022
SE Group No.	22	23	24
SE Name	EE22AD3	EE22AD3	EE22AD3
SE Description	1 weed, % effi>	1 weed, % effi>	1 weed, % effi>
Part Rated	PLANT, -	PLANT, -	PLANT, -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	35, 35	35, 35	35, 35
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A
Plant-Eval Interval	62 DP-1	62 DP-1	62 DP-1
Days After Emergence	43 DE-1	43 DE-1	43 DE-1
ARM Action Codes	P EC	P EC	P EC
Number of Decimals	0	0	0

Trt Treatment No. Name	Rate Unit	Appl Code	31*	32*	33*
1 UNTREATED			0	0	0
2 WARRANT	1259g ai/ha A		70bc	95a	83-
2 ROUNDUP POWERMAX 3	1260g ai/ha A				
2 N-PAK AMS LIQUID	2.5% v/v A				
3 MON 301668	1260g ai/ha A		70bc	100a	85-
3 ROUNDUP POWERMAX 3	1260g ai/ha A				
3 N-PAK AMS LIQUID	2.5% v/v A				
4 ACC 553 CS 9205	1260g ai/ha A		73bc	95a	94-
4 ROUNDUP POWERMAX 3	1260g ai/ha A				
4 N-PAK AMS LIQUID	2.5% v/v A				
5 ACC 553 CS 9206	1260g ai/ha A		69bc	98a	85-
5 ROUNDUP POWERMAX 3	1260g ai/ha A				
5 N-PAK AMS LIQUID	2.5% v/v A				
6 DUAL MAGNUM	1066g ai/ha A		73bc	96a	99-
6 ROUNDUP POWERMAX 3	1260g ai/ha A				
6 N-PAK AMS LIQUID	2.5% v/v A				
7 WARRANT	1259g ai/ha A		73bc	100a	85-
7 ROUNDUP POWERMAX 3	1260g ai/ha A				
7 LIBERTY 280	655g ai/ha A				
7 N-PAK AMS LIQUID	2.5% v/v A				

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High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
 Project ID: MD-NATIONAL Project ID 2: Project ID 3:
 Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
 Investigator (Creator): Michael, Janis

Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	CHEAL	AMARE	CONSS
Pest Name	common lambsqua	Redroot pigweed	Morningglory
Crop Type, Code			
BBCH Scale			
Crop Name			
Rating Date	Jun-28-2022	Jun-28-2022	Jun-28-2022
SE Group No.	22	23	24
SE Name	EE22AD3	EE22AD3	EE22AD3
SE Description	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>
Part Rated	PLANT, -	PLANT, -	PLANT, -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	35, 35	35, 35	35, 35
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A
Plant-Eval Interval	62 DP-1	62 DP-1	62 DP-1
Days After Emergence	43 DE-1	43 DE-1	43 DE-1
ARM Action Codes	P EC	P EC	P EC
Number of Decimals	0	0	0

Trt Treatment No. Name	Rate Unit	Appl Code	31*	32*	33*
8 MON 301668	1260g ai/ha A		64 c	95 a	96-
8 ROUNDUP POWERMAX 3	1260g ai/ha A				
8 LIBERTY 280	655g ai/ha A				
8 N-PAK AMS LIQUID	2.5% v/v A				
9 ACC 553 CS 9205	1260g ai/ha A		73 bc	88 ab	83-
9 ROUNDUP POWERMAX 3	1260g ai/ha A				
9 LIBERTY 280	655g ai/ha A				
9 N-PAK AMS LIQUID	2.5% v/v A				
10 ACC 553 CS 9206	1260g ai/ha A		69 bc	98 a	86-
10 ROUNDUP POWERMAX 3	1260g ai/ha A				
10 LIBERTY 280	655g ai/ha A				
10 N-PAK AMS LIQUID	2.5% v/v A				
11 DUAL MAGNUM	1066g ai/ha A		66 bc	76 b	89-
11 ROUNDUP POWERMAX 3	1260g ai/ha A				
11 LIBERTY 280	655g ai/ha A				
11 N-PAK AMS LIQUID	2.5% v/v A				
12 WARRANT	1259g ai/ha A		79 b	100 a	95-
12 ROUNDUP POWERMAX 3	1260g ai/ha A				
12 XTENDIMAX VAPORGRIP	562.6g ai/ha A				
12 INTACT	0.5% v/v A				
12 VAPORGRIP XTRA AGENT	576g ai/ha A				
12 CLASS ACT RIDION	1% v/v A				
13 MON 301668	1260g ai/ha A		79 b	100 a	99-
13 ROUNDUP POWERMAX 3	1260g ai/ha A				
13 XTENDIMAX VAPORGRIP	562.6g ai/ha A				
13 INTACT	0.5% v/v A				
13 VAPORGRIP XTRA AGENT	576g ai/ha A				
13 CLASS ACT RIDION	1% v/v A				
14 ACC 553 CS 9205	1260g ai/ha A		73 bc	95 a	95-
14 ROUNDUP POWERMAX 3	1260g ai/ha A				
14 XTENDIMAX VAPORGRIP	562.6g ai/ha A				
14 INTACT	0.5% v/v A				
14 VAPORGRIP XTRA AGENT	576g ai/ha A				
14 CLASS ACT RIDION	1% v/v A				
15 ACC 553 CS 9206	1260g ai/ha A		93 a	96 a	96-
15 ROUNDUP POWERMAX 3	1260g ai/ha A				
15 XTENDIMAX VAPORGRIP	562.6g ai/ha A				
15 INTACT	0.5% v/v A				
15 VAPORGRIP XTRA AGENT	576g ai/ha A				
15 CLASS ACT RIDION	1% v/v A				

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High Load Warrant/POST/Soybean/Safety and Efficacy

Trial ID: HN22USAEOITRSX Cooperator Trial ID:
 Protocol ID: Location: Big E Trial Year: 2022
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Pest Type	W, Weed	W, Weed	W, Weed
Pest Code	CHEAL	AMARE	CONSS
Pest Name	common lambsqua	Redroot pigweed	Morningglory
Crop Type, Code			
BBCH Scale			
Crop Name			
Rating Date	Jun-28-2022	Jun-28-2022	Jun-28-2022
SE Group No.	22	23	24
SE Name	EE22AD3	EE22AD3	EE22AD3
SE Description	1 weed, % effic>	1 weed, % effic>	1 weed, % effic>
Part Rated	PLANT, -	PLANT, -	PLANT, -
Rating Type	CONTRO	CONTRO	CONTRO
Rating Unit/Min/Max	%, 0, 100	%, 0, 100	%, 0, 100
Sample Size	1 PLOT	1 PLOT	1 PLOT
Number of Subsamples	1	1	1
Days After First/Last Applic.	35, 35	35, 35	35, 35
Trt-Eval Interval	35 DA-A	35 DA-A	35 DA-A
Plant-Eval Interval	62 DP-1	62 DP-1	62 DP-1
Days After Emergence	43 DE-1	43 DE-1	43 DE-1
ARM Action Codes	P EC	P EC	P EC
Number of Decimals	0	0	0
Trt Treatment	31*	32*	33*
No. Name	Rate	Appl	
	Rate Unit	Code	
16 DUAL MAGNUM	1066 g ai/ha A		90 a
16 ROUNDUP POWERMAX 3	1260 g ai/ha A		86 ab
16 XTENDIMAX VAPORGRIP	562.6 g ai/ha A		100-
16 INTACT	0.5% v/v A		
16 VAPORGRIP XTRA AGENT	576 g ai/ha A		
16 CLASS ACT RIDION	1% v/v A		
LSD P=.05	8.6	11.5	11.0
Standard Deviation	6.0	8.0	7.7
CV	8.15	8.52	8.45
Grand Mean	74.0	94.5	91.3
Levene's F^	0.422	0.657	1.026
Levene's Prob(F)	0.959	0.802	0.446
Rank X2	.	.	.
P(Rank X2)	.	.	.
Skewness^	-0.1478	-0.8431*	-0.0464
Kurtosis^	0.4302	0.5861	-1.1028
Replicate F	3.510	2.203	9.135
Replicate Prob(F)	0.0233	0.1018	0.0001
Treatment F	7.117	2.629	2.760
Treatment Prob(F)	0.0001	0.0079	0.0056

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Study Director: Riley, Eric Sponsor Contact: Stevenson, Rod
Investigator (Creator): Michael, Janis

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

SETFA, Setaria faberi, Giant foxtail = US
SETPU, Setaria helvola, yellow foxtail = US
ECHSS, Echinochloa sp., Barnyardgrass = US
AMBTR, Ambrosia trifida, Giant ragweed = US
CHEAL, Chenopodium album, common lambsquarters = US
AMARE, Amaranthus retroflexus, Redroot pigweed = US
CONSS, Convolvulus sp., Morningglory = US

Crop Type Code

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

Part Rated

PLANT = plant

Rating Type

PHYSTU = phytotoxicity - stunting
PHYCHL = phytotoxicity - chlorosis
PHYNEC = phytotoxicity - necrosis /burn
PHYDEF = phyto. deformation (cupping, epinasty, leaf wrap, wrinkling)
CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent

PLOT = total plot

Plant-Eval Interval

36 DP-1 = 1 GLXMA Apr-27-2022
41 DP-1 = 1 GLXMA Apr-27-2022
48 DP-1 = 1 GLXMA Apr-27-2022
55 DP-1 = 1 GLXMA Apr-27-2022
62 DP-1 = 1 GLXMA Apr-27-2022

ARM Action Codes

EC = Do not analyze untreated check, while still reporting treatment mean on AOV Means Table