

The Ohio State University

LIBERTY ULTRA/EFFICACY/GLU-TOLERANT CROPS/EXTERNAL

Trial ID: MKD-H-2024-US-Z41-A-01.01 Cooperator Trial ID: H24Z41A-
 Protocol ID: MKD-H-2024-US-Z41-A-01.0 Location: Trial Year: 27
 Study Director: Sponsor Contact:
 Investigator: VINCENT LIAM

Application Description

	A	B	C
Date	May-2-2024	Jun-3-2024	May-30-2024
Start Time	8:20 AM	1:00 PM	12:40 PM
Stop Time	8:30 AM	1:15 PM	12:43 PM
Method	SPRAY	SPRAY	SPRAY
Timing	VA	NA3	NA3
Placement	BROSOL	BROFOL	BROFOL
Applied By	Dobbels	Dobbels	Hernandez
Entry Date	May-3-2024	Jun-5-2024	May-30-2024
Air Temperature Start, Stop	66, 66 F	80, 80 F	65, 65 F
% Relative Humidity Start, Stop	41, 41	55, 55	41, 41
Wind Velocity+Dir. Start	3 MPH, W	3 MPH, E	4 MPH, S
Wind Velocity+Dir. Stop	4 MPH, W	3 MPH, E	4 MPH, S
Wind Velocity+Dir. Max	4.6 MPH, W	4 MPH, E	5 MPH, S
Wet Leaves (Y/N)	N, no	N, no	N, no
Soil Temperature	58 F	69 F	62 F
Soil Temperature Depth	6 IN	6 IN	6 IN
Soil Moisture	DRY	DRY	SLIWET
Soil Surface Condition	MEDIUM	MEDIUM	MEDIUM
% Ground Cover	0	70	75
% Cloud Cover	0	75	50
First Moisture Occurred On	May-3-2024	Jun-4-2024	Jun-1-2024
Time to First Moisture	1.0 DAY	1.0 DAY	2.0 DAY
Amount of First Moisture	0.18 IN	0.24 IN	0.01 IN
Moisture 1 Week Before Appl.	0.38 IN	0.61 IN	0.69 IN
Moisture 6 Hours After Appl.	0 IN	0 IN	0 IN
Moisture 24 Hours After Appl.	0 IN	0 IN	0 IN
Moisture 1 Week After Appl.	0.82 IN	0.65 IN	0.67 IN
Problems with Application?	N, no	N, no	N, no

Protocol Application Directions:

For POST applications. use a nozzle and set up to deliver medium to coarse size droplets.
 Apply a blanket PRE with a 1/2x local rate of Dual II Magnum - adjust the treatment rate as needed

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale	GLXMA, BSOY	GLXMA, BSOY	GLXMA, BSOY
Days after Emergence	-12	20	16
Stage Majority, Percent		14, 60	13, 90
Stage Minimum, Percent		13, 40	12, 10
Stage Maximum, Percent		14, 60	13, 90
Height Average		6 IN	5 IN
Height Minimum, Maximum		4, 6	4, 5

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale	SETFA, W, BBCH	SETFA, W, BBCH	SETFA, W, BBCH
Stage Majority, Percent		14, 80	13, 90
Stage Minimum, Percent		13, 10	12, 10
Stage Maximum, Percent		15, 10	13, 90
Height Average		4 IN	2 IN
Height Minimum, Maximum		2, 6	1, 2
Relative Density		LOW	LOW
Density Average		60 m2	35 m2
Density Minimum, Maximum		15, 100	12, 60
Pest 2 Code, Type, Scale	SETPU, W, DESC	SETPU, W, DESC	SETPU, W, DESC
Stage Majority, Percent		22, 80	13, 90
Stage Minimum, Percent		13, 10	12, 10
Stage Maximum, Percent		22, 80	13, 90
Height Average		3 IN	2 IN
Height Minimum, Maximum		1, 3	1, 2
Relative Density		LOW	LOW
Density Average		35 m2	35 m2
Density Minimum, Maximum		10, 40	12, 60
Pest 3 Code, Type, Scale	AMBTR, W, BBCH	AMBTR, W, BBCH	AMBTR, W, BBCH
Stage Majority, Percent		18, 80	16, 80
Stage Minimum, Percent		16, 10	14, 10
Stage Maximum, Percent		19, 10	18, 10
Height Average		7 IN	5 IN
Height Minimum, Maximum		4, 8	3, 6
Relative Density		MEDIUM	MEDIUM
Density Average		12 m2	12 m2
Density Minimum, Maximum		6, 25	6, 24
Pest 4 Code, Type, Scale	CHEAL, W, BBCH	CHEAL, W, BBCH	CHEAL, W, BBCH
Stage Majority, Percent		18, 80	14, 80
Stage Minimum, Percent		16, 10	12, 10

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Stage Maximum, Percent		18, 80		16, 10
Height Average		3 IN		0.5 IN
Height Minimum, Maximum		2, 4		0.25, 0.5
Relative Density		HIGH		LOW
Density Average		30 m2		0.33 m2
Density Minimum, Maximum		25, 50		0, 3
Pest 5 Code, Type, Scale	ABUTH, W, BBCH	ABUTH, W, BBCH	ABUTH, W, BBCH	ABUTH, W, BBCH
Stage Majority, Percent		14, 80		13, 80
Stage Minimum, Percent		14, 80		12, 10
Stage Maximum, Percent		16, 10		13, 80
Height Average		4 IN		2 IN
Height Minimum, Maximum		2, 5		1, 3
Relative Density		MEDIUM		LOW
Density Average		3 m2		0.25 m2
Density Minimum, Maximum		1, 5		1, 2
Pest 6 Code, Type, Scale	SIDSP, W, BBCH	SIDSP, W, BBCH	SIDSP, W, BBCH	SIDSP, W, BBCH
Stage Majority, Percent		13, 80		10, 80
Stage Minimum, Percent		12, 20		12, 10
Stage Maximum, Percent		13, 80		10, 80
Height Average		2 IN		1 IN
Height Minimum, Maximum		1, 3		0.5, 1
Relative Density		HIGH		LOW
Density Average		30 .m2		1 m2
Density Minimum, Maximum		15, 50		1, 4
Pest 7 Code, Type, Scale	IPOHE, W, BBCH	IPOHE, W, BBCH	IPOHE, W, BBCH	IPOHE, W, BBCH
Stage Majority, Percent		13, 80		10, 70
Stage Minimum, Percent		12, 20		10, 70
Stage Maximum, Percent		13, 80		12, 30
Height Average		2 IN		2 IN
Height Minimum, Maximum		1, 3		1, 3
Relative Density		LOW		LOW
Density Average		2 m2		1 m2
Density Minimum, Maximum		1, 4		1, 3
Pest 8 Code, Type, Scale	POLPY, W, BBCH	POLPY, W, BBCH	POLPY, W, BBCH	POLPY, W, BBCH
Stage Majority, Percent		13, 80		
Stage Minimum, Percent		12, 20		
Stage Maximum, Percent		13, 80		
Height Average		2 IN		
Height Minimum, Maximum		1, 3		
Relative Density		LOW		
Density Average		3 m2		
Density Minimum, Maximum		1, 5		
Pest 9 Code, Type, Scale	HIBTR, W, BBCH	HIBTR, W, BBCH	HIBTR, W, BBCH	HIBTR, W, BBCH
Stage Majority, Percent		14, 80		
Stage Minimum, Percent		14, 80		
Stage Maximum, Percent		16, 20		
Height Average		4 IN		
Height Minimum, Maximum		3, 5		
Relative Density		LOW		
Density Average		4 m2		
Density Minimum, Maximum		1, 6		

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Trt No.	Treatment Name	Form Conc	Form Unit	Form Type	Rate	Other Rate	Other Unit	Other Rate	Appl Code	Appl Timing	Rep 1	Rep 2	Rep 3	Notes
1	DUAL II MAGNUM CHECK	917.0	GA/L	EC	8.0 fl oz/a	536.0	g ai/ha		A	VA	101	208	307	
2	DUAL II MAGNUM BAS 101005H	917.0 211.0	GA/L GA/L	EC SL	8.0 fl oz/a 24.0 fl oz/a	536.0 370.0	g ai/ha g ai/ha		A B	VA VA	102	206	306	
3	DUAL II MAGNUM SURMISE 5	917.0 551.2	GA/L GA/L	EC SL	8.0 fl oz/a 16.4 fl oz/a	536.0 660.0	g ai/ha g ai/ha		A B	VA VA	103	201	305	
4	DUAL II MAGNUM EXP2	917.0 125.0	GA/L GA/L	EC SE	8.0 fl oz/a 43.0 fl oz/a	536.0 393.0	g ai/ha g ai/ha		A B	VA VA	104	202	303	
5	DUAL II MAGNUM BAS 101005H AMS2000	917.0 211.0 100.0	GA/L GA/L %	EC SL SG	8.0 fl oz/a 24.0 fl oz/a 1.5 lb/a	536.0 370.0 1680.0	g ai/ha g ai/ha g ai/ha		A B B	VA VA VA	105	203	302	
6	DUAL II MAGNUM SURMISE 5 AMS2000	917.0 551.2 100.0	GA/L GA/L %	EC SL SG	8.0 fl oz/a 16.4 fl oz/a 1.5 lb/a	536.0 660.0 1680.0	g ai/ha g ai/ha g ai/ha		A B B	VA VA VA	106	204	308	
7	DUAL II MAGNUM EXP2 AMS2000	917.0 125 100.0	GA/L GA/L %	EC SE SG	8.0 fl oz/a 43.0 fl oz/a 1.5 lb/a	536.0 393.0 1680.0	g ai/ha g ai/ha g ai/ha		A B B	VA VA VA	107	205	304	
8	ZIDUA PRO BAS 101005H ROUNDUP POWERMAX3 ZIDUA SC AMS2000	490.0 211.0 575.0 500.0 100.0	GA/L GA/L GA/L GA/L %	SC SL SL SC SG	6.0 fl oz/a 24.0 fl oz/a 30.0 fl oz/a 2.5 fl oz/a 1.5 lb/a	215.0 370.0 1260.0 91.3 1680.0	g ai/ha g ai/ha g ai/ha g ai/ha g ai/ha		A C C C C	VA NA3 NA3 NA3 NA3	108	207	301	

Sort Order: Replicate 1