

The Ohio State University

Reviton Soybean Burndown

Trial ID: 21REVITON II Location: Trial Year: 2021
 Protocol ID: 2021-H-US11-S Investigator (Creator): Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

Trial Status: E established
ARM Trial Created On: Apr-1-2021
Initiation Date: May-1-2021

Trial Location

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

Latitude of LL Corner °: 39.85882 N
Longitude of LL Corner °: -83.6727 W
Altitude of LL Corner: 1087.00 FT

Conducted Under GLP: No
Conducted Under GEP: No

Crop Description

Crop 1: C GLXMA Glycine max Soybean
Entry Date: May-17-2021 **Stage Scale:** BBCH
Variety: Asgrow AG38XF1
Attributes: DICAMBA, GLYPHOSATE, GLUFOSINATE TOL
Planting Date: May-14-2021 **Planting Rate:** 175000 S/A
Depth: 1.5 IN
Rows per Plot: 8 **Planting Method:** PLANT
Row Spacing: 15 IN **Planting Equipment:** FE field equipment
Soil Temperature: 60 F **Seed Bed:** MEDIUM medium
Emergence Date: Jun-1-2021 **Soil Moisture:** NORMAL normal, adequate

Pest Description

Pest 1 Type: W **Code:** STEME Stellaria media **Entry Date:** May-3-2021
Common Name: Common chickweed **Stage Scale:** BBCH

Pest 2 Type: W **Code:** LAMPU Lamium purpureum **Entry Date:** May-3-2021
Common Name: Purple deadnettle **Stage Scale:** BBCH

Pest 3 Type: W **Code:** CARPE Cardamine pensylvanica **Entry Date:** May-3-2021
Common Name: Pennsylvania bittercress **Stage Scale:** BBCH

Pest 4 Type: W **Code:** RANAB Ranunculus abortivus **Entry Date:** May-3-2021
Common Name: Smallflower buttercup **Stage Scale:** BBCH

Pest 5 Type: W **Code:** AMBTR Ambrosia trifida **Entry Date:** May-3-2021
Common Name: Giant ragweed **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 **Treatments:** 6 **Tillage Type:** NOTILL no-till
Replications: 3 **Study Design:** RACOBL Randomized Complete Block (RCB)

Previous

No. Crop Year
 1. CORN 2020

Soil Description

Description Name: F-9 West
% Sand: 33 **% OM:** 1.6 **Texture:** SIL silt loam
% Silt: 53 **pH:** 6 **Soil Name:** Crosby
% Clay: 15 **CEC:** 8.6 **Fert. Level:** G good

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Application Description

A

Application Date May-1-2021
 Application Method SPRAY
 Application Timing 14 EPP
 Application Placement BROFOL
 Applied By Dobbels
 Appl. Entry Date May-3-2021
 Air Temperature Start, Stop 37 37 F
 % Relative Humidity Start, Stop 83 83
 Wind Velocity+Dir. Start 1 MPH WSW
 Wind Velocity+Dir. Stop 1 MPH WSW
 Wind Velocity+Dir. Max 1 MPH WSW
 Wet Leaves (Y/N) N no
 Soil Temperature 35 F
 Soil Moisture NORMAL
 Soil Surface Condition MEDIUM
 % Cloud Cover 0
 Next Moisture Occurred On May-1-2021
 Time to Next Moisture 4.3 HR
 Moisture 6 Hours after Appl. 0.01 IN
 Moisture 1 Week after Appl. 1.32 IN

Crop Stage At Each Application

A

Crop 1 Code, BBCH Scale GLXMA BSOY
 Days after Emergence -31

Pest Stage At Each Application

A

Pest 1 Code, Type, Scale STEME W BBCH
 Stage Majority, Percent 65 100
 Height Average 3 IN
 Height Minimum, Maximum 2 3
 Density Average 12 PLA/m2
 Density Minimum, Maximum 0 40
 Pest 2 Code, Type, Scale LAMPU W BBCH
 Stage Majority, Percent 65 100
 Height Average 6 IN
 Height Minimum, Maximum 5 7
 Density Average 53 PLA/m2
 Density Minimum, Maximum 32 100
 Pest 3 Code, Type, Scale CARPE W BBCH
 Stage Majority, Percent 89 100
 Height Average 5 IN
 Height Minimum, Maximum 4 5
 Density Average 104 PLA/m2
 Density Minimum, Maximum 52 120
 Pest 4 Code, Type, Scale RANAB W BBCH
 Stage Majority, Percent 63 100
 Height Average 12 IN
 Height Minimum, Maximum 10 12
 Density Average 2 PLA/m2
 Density Minimum, Maximum 0 4
 Pest 5 Code, Type, Scale AMBTR W BBCH
 Stage Majority, Percent 12 60
 Stage Minimum, Percent 10 10
 Stage Maximum, Percent 14 30
 Height Average 3 IN
 Height Minimum, Maximum 1 3
 Density Average 39 PLA/m2
 Density Minimum, Maximum 8 92

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Application Equipment

Appl. Equipment 6' TT
Equipment Type BACCAI
Operation Pressure 44 PSI
Nozzle Model 110015
Nozzle Type TT
Nozzle Spacing 18 IN
Boom Length 6.67 FT
Boom Height 20 IN
Ground Speed 3 MPH
Carrier WATER
Application Amount 15 GAL/AC
Mix Size 1 L
Propellant COMCO2

Notes

Context	Date	By	Notes				
STATUS	Apr-1-2021	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'S' during trial creation.				
STATUS	May-3-2021	Dr. Mark M. Loux	Automatically added by ARM: Trial Status updated to 'E' when Application Date entered.				
Pest Type			W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code			STEME	LAMPU	CARPE	RANAB	AMBTR
Pest Name			Common chickweed	Purple deadnett>	Pennsylvania bi>	Smallflower but>	Giant ragweed
Rating Date	May-4-2021		May-4-2021	May-4-2021	May-4-2021	May-4-2021	May-4-2021
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	May-5-2021		May-7-2021	May-7-2021	May-7-2021	May-7-2021	May-7-2021
Days After First/Last Applic.	3 3		3 3	3 3	3 3	3 3	3 3
Trt-Eval Interval	3 DA-A		3 DA-A	3 DA-A	3 DA-A	3 DA-A	3 DA-A
Days After Emergence	-28 DE-1		-28 DE-1	-28 DE-1	-28 DE-1	-28 DE-1	-28 DE-1
Number of Decimals	0		0	0	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	1* dAS	2*	3* dAA	4*	5*
1	UTC				0 b	0 b	0 b	0 b	0 b
2	Reviton	2 oz/a		A	26 a	12 ab	30 a	37 a	42 a
	HC MSO	19.2 oz/a		A					
3	Reviton	2 oz/a		A	26 a	12 ab	33 a	31 a	
	Roundup Powermax	22 oz/a		A					
	HC MSO	19.2 oz/a		A					
	AMSOL	48 oz/a		A					
4	Sharpen	1.5 oz/a		A	30 a	17 a	30 a	41 a	47 a
	Roundup Powermax	22 oz/a		A					
	HC MSO	19.2 oz/a		A					
	AMSOL	48 oz/a		A					
5	Reviton	2 oz/a		A	26 a	17 a	30 a	35 a	42 a
	Roundup Powermax	22 oz/a		A					
	Zone Elite	32 oz/a		A					
	HC MSO	19.2 oz/a		A					
	AMSOL	48 oz/a		A					
6	Reviton	2 oz/a		A	30 a	20 a	30 a	36 a	46 a
	Roundup Powermax	22 oz/a		A					
	2,4-D Ester	1 pt/a		A					
	AMSOL	48 oz/a		A					
	LSD P=.05				8.3 - 9.1	10.7	4.4 - 4.5	11.5	19.1
	Standard Deviation				0.4t	5.9	1.5t	5.5	7.3
	CV				9.77t	46.12	5.37t	20.39	24.45
	Levene's F^				0.60	0.887	0.496	1.769	0.427
	Levene's Prob(F)				0.701	0.519	0.773	0.238	0.785
	Skewness^				-1.0933*	-0.0686	1.3337*	0.2087	0.6309
	Kurtosis^				0.425	-0.2129	4.3544*	-0.4521	-0.757
	Replicate F				0.000	0.280	0.955	2.752	2.683
	Replicate Prob(F)				1.0000	0.7615	0.4208	0.1563	0.2147
	Treatment F				54.220	4.288	253.302	19.640	18.359
	Treatment Prob(F)				0.0001	0.0241	0.0001	0.0027	0.0190

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	STEME	LAMPU	CARPE	RANAB	AMBTR
Pest Name	Common chickweed	Purple deadnett>	Pennsylvania bi>	Smallflower but>	Giant ragweed
Rating Date	May-14-2021	May-14-2021	May-14-2021	May-14-2021	May-14-2021
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	May-17-2021	May-17-2021	May-17-2021	May-17-2021	May-17-2021
Days After First/Last Applic.	13 13	13 13	13 13	13 13	13 13
Trt-Eval Interval	13 DA-A	13 DA-A	13 DA-A	13 DA-A	13 DA-A
Days After Emergence	-18 DE-1	-18 DE-1	-18 DE-1	-18 DE-1	-18 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	6*	7*	8*	9*	10*
1	UTC				0 c	0 c	0	0 b	0 -
2	Reviton	2 oz/a		A	50 b	50 b	92 -	72 a	100 -
	HC MSO	19.2 oz/a		A					
3	Reviton	2 oz/a		A	83 a	82 a	93 -	92 a	100 -
	Roundup Powermax	22 oz/a		A					
	HC MSO	19.2 oz/a		A					
	AMSOL	48 oz/a		A					
4	Sharpen	1.5 oz/a		A	83 a	53 b	85 -	92 a	100
	Roundup Powermax	22 oz/a		A					
	HC MSO	19.2 oz/a		A					
	AMSOL	48 oz/a		A					
5	Reviton	2 oz/a		A	88 a	85 a	97 -	84 a	100 -
	Roundup Powermax	22 oz/a		A					
	Zone Elite	32 oz/a		A					
	HC MSO	19.2 oz/a		A					
	AMSOL	48 oz/a		A					
6	Reviton	2 oz/a		A	87	75 a	90 -	80 a	100 -
	Roundup Powermax	22 oz/a		A					
	2,4-D Ester	1 pt/a		A					
	AMSOL	48 oz/a		A					
	LSD P=.05				5.6	10.4	14.5	23.7	.
	Standard Deviation				3.0	5.7	7.5	11.3	0.0
	CV				4.85	9.91	8.3	18.01	0.0
	Levene's F^				0.173	0.663	0.818	0.323	.
	Levene's Prob(F)				0.947	0.659	0.545	0.884	.
	Skewness^				0.5652	-0.4618	-0.1278	-1.0196	.
	Kurtosis^				-0.5604	1.1245	0.2452	1.4827	.
	Replicate F				1.714	2.436	0.767	0.506	0.000
	Replicate Prob(F)				0.2401	0.1375	0.4998	0.6309	1.0000
	Treatment F				478.857	92.795	0.704	24.956	0.000
	Treatment Prob(F)				0.0001	0.0001	0.6137	0.0015	1.0000

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Pest Type	W Weed	W Weed	W Weed	W Weed	W Weed
Pest Code	STEME	LAMPU	CARPE	RANAB	AMBTR
Pest Name	Common chickweed	Purple deadnett>	Pennsylvania bi>	Smallflower but>	Giant ragweed
Rating Date	May-21-2021	May-21-2021	May-21-2021	May-21-2021	May-21-2021
Rating Type	CONTROL	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-25-2021	May-25-2021	May-25-2021	May-25-2021	May-25-2021
Days After First/Last Applic.	20 20	20 20	20 20	20 20	20 20
Trt-Eval Interval	20 DA-A	20 DA-A	20 DA-A	20 DA-A	20 DA-A
Days After Emergence	-11 DE-1	-11 DE-1	-11 DE-1	-11 DE-1	-11 DE-1
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Other Rate	Other Rate	Appl Unit Code	11* dAS	12*	13* dAS	14*	15*
1	UTC				0 c	0 b	0 b	0	0 -
2	Reviton	2 oz/a		A	15 b	87 a	93 a	82 b	100 -
	HC MSO	19.2 oz/a		A					
3	Reviton	2 oz/a		A	100 a	80 a	100 a	99 a	100 -
	Roundup Powermax	22 oz/a		A					
	HC MSO	19.2 oz/a		A					
	AMSOL	48 oz/a		A					
4	Sharpen	1.5 oz/a		A	100 a	80 a	100 a	101 a	100
	Roundup Powermax	22 oz/a		A					
	HC MSO	19.2 oz/a		A					
	AMSOL	48 oz/a		A					
5	Reviton	2 oz/a		A	100 a	100 a	99 a	100 a	100 -
	Roundup Powermax	22 oz/a		A					
	Zone Elite	32 oz/a		A					
	HC MSO	19.2 oz/a		A					
	AMSOL	48 oz/a		A					
6	Reviton	2 oz/a		A	100 a	100 a	100 a	99 a	100 -
	Roundup Powermax	22 oz/a		A					
	2,4-D Ester	1 pt/a		A					
	AMSOL	48 oz/a		A					
	LSD P=.05				20.4 - 37.1	23.2	9.3 - 9.4	5.4	.
	Standard Deviation				1.1t	12.8	0.3t	2.1	0.0
	CV				15.23t	17.15	3.08t	2.22	0.0
	Levene's F^				0.533	1.459	0.479	0.875	.
	Levene's Prob(F)				0.747	0.273	0.785	0.539	.
	Skewness^				-1.3829*	0.1674	-1.2415*	-0.1957	.
	Kurtosis^				4.8663*	1.1953	3.92*	-1.9413	.
	Replicate F				1.000	0.264	1.125	1.848	0.000
	Replicate Prob(F)				0.4019	0.7731	0.3664	0.2999	1.0000
	Treatment F				39.338	25.976	643.550	37.926	0.000
	Treatment Prob(F)				0.0001	0.0001	0.0001	0.0067	1.0000

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Sponsor Contact:

Pest Type

W, Weed = Weed or volunteer crop

Pest Code

STEME, Stellaria media, Common chickweed = US

LAMPU, Lamium purpureum, Purple deadnettle = US

CARPE, Cardamine pensylvanica, Pennsylvania bittercress = US

RANAB, Ranunculus abortivus, Smallflower buttercup = US

AMBTR, Ambrosia trifida, Giant ragweed = US

Rating Type

CONTRO = control / burndown or knockdown

Rating Unit/Min/Max

%, 0, 100 = percent