

Ohio State University Horticulture and Crop Science

Evaluate residual control of Zidua

Title No. 2:
 Trial ID: 11NTSYLD Protocol ID: 11NTSYLD
 Location: Western Branch F-10W Study Director: Bryan Reeb
 Project ID: 11NTSYLD Investigator: Dr. Mark M. Loux
 Sponsor Contact: Caren Judge, BASF

General Trial Information

Study Director: Bryan Reeb **Title:** Research Technician
Investigator: Dr. Mark M. Loux **Title:** Professor

Trial Location

City: South Charleston **Latitude of LL Corner** °: 39.85877 N USA 49.376656 - 24.53833
State/Prov.: Ohio **Longitude of LL Corner** °: -83.67261 W -124.715843 - -66.968887
Postal Code: 45368
Country: USA

Crop Description

Crop 1: GLXMA Glycine max Soybean
Variety: AG 3631 **Description:** Round Up Ready
BBCH Scale: BSOY **Planting Date:** May-22-2011
Planting Method: SEEDED seeded **Rate, Unit:** 197000 S/A
Depth, Unit: 1 IN
Row Spacing, Unit: 15 IN
Seed Bed: MEDIUM medium
Soil Moisture: DAMP damp **Emergence Date:** Jun-1-2011
Harvested Width, Unit: 6.25 FT **Harvested Length, Unit:** 30 FT

Pest Description

- Pest 1 Type:** W **Code:** LAMPU Lamium purpureum
Common Name: Purple deadnettel
- Pest 2 Type:** W **Code:** ERYRE Erysimum repandum
Common Name: Bushy wallflower
- Pest 3 Type:** W **Code:** CAPBP Capsella bursa-pastoris
Common Name: Shepherd's purse
- Pest 4 Type:** W **Code:** TAROF Taraxacum officinale
Common Name: Common dandelion
- Pest 5 Type:** W **Code:** SETFA Setaria faberi
Common Name: Giant foxtail
- Pest 6 Type:** W **Code:** AMBTR Ambrosia trifida
Common Name: Giant ragweed
- Pest 7 Type:** W **Code:** AMBEL Ambrosia artemisiifolia
Common Name: Common ragweed
- Pest 8 Type:** W **Code:** ERICA Conyza canadensis
Common Name: Canada horseweed
- Pest 9 Type:** W **Code:** SOLPT Solanum ptycanthum
Common Name: Eastern black nightshade
- Pest10 Type:** W **Code:** ABUTH Abutilon theophrasti
Common Name: Velvetleaf

Site and Design

Plot Width, Unit: 10 FT **Site Type:** FIELD field
Plot Length, Unit: 30 FT **Experimental Unit:** 1 PLOT plot
Plot Area, Unit: 300 FT2 **Tillage Type:** NOTILL no-till
Replications: 3 **Study Design:** RACOB L Randomized Complete Block (RCB)
Untreated Arrangement: INCLUDED single control randomized in each block

Soil Description

Description Name: F-10 West
% OM: 2 **Texture:** SIL silt loam
pH: 6.3 **Soil Name:** Crosby Silt Loam
CEC: 12 **Fert. Level:** G good
Soil Drainage: G good

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Application Description

	A	B
Application Date:	Apr-21-2011	Jun-13-2011
Time of Day:	9:00 AM	12:45 PM
Application Method:	SPRAY	SPRAY
Application Timing:	7 EPP	MPO
Application Placement:	BROFOL	BROFOL
Air Temperature, Unit:	43 F	76.7 F
% Relative Humidity:	64	51.2
Wind Velocity, Unit:	6 MPH	6.8 MPH
Wind Direction:	NNE	NW
Dew Presence (Y/N):	N no	N no
Soil Temperature, Unit:	42 F	77 F
Soil Moisture:	VERWET	GOOD
% Cloud Cover:	5	40
Next Rain Occurred On:	Apr-22-2011	Jun-17-2011

Crop Stage At Each Application

	A	B
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY
Stage Scale Used:		BBCH
Stage Majority, Percent:		12 100
Height, Unit:		3 IN

Pest Stage At Each Application

	A	B
Pest 1 Code, Type, Scale:	LAMPU W	LAMPU W
Stage Majority, Percent:	65	100
Diameter, Unit:	5 IN	
Height, Unit:	7 IN	
Height Minimum, Maximum:	2 7	
Pest 2 Code, Type, Scale:	ERYRE W	ERYRE W
Stage Majority, Percent:	65	100
Height, Unit:	3 IN	
Pest 3 Code, Type, Scale:	CAPBP W	CAPBP W
Stage Majority, Percent:	65	100
Height, Unit:	10 IN	
Height Minimum, Maximum:	5 10	
Pest 4 Code, Type, Scale:	TAROF W	TAROF W
Stage Majority, Percent:	65	100
Diameter, Unit:	7 IN	
Pest 5 Code, Type, Scale:	SETFA W	SETFA W
Stage Majority, Percent:		13 100
Height, Unit:		3 IN
Height Minimum, Maximum:		1 3
Pest 6 Code, Type, Scale:	AMBTR W	AMBTR W
Stage Majority, Percent:		14 100
Height, Unit:		5 IN
Height Minimum, Maximum:		3 5
Density, Unit:	13.33 M2	13.33 M2
Pest 7 Code, Type, Scale:	AMBEL W	AMBEL W
Stage Majority, Percent:		14 100
Height, Unit:		2 IN
Pest 8 Code, Type, Scale:	ERICA W	ERICA W
Stage Majority, Percent:		15 100
Height, Unit:		1 IN
Height Minimum, Maximum:		0.5 1
Density, Unit:	169.33 M2	169.33 M2
Pest 9 Code, Type, Scale:	SOLPT W	SOLPT W
Stage Majority, Percent:		12 100
Height, Unit:		2 IN
Height Minimum, Maximum:		1 2
Pest10 Code, Type, Scale:	ABUTH W	ABUTH W
Stage Majority, Percent:		14 100
Height, Unit:		3 IN
Height Minimum, Maximum:		1 3

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Application Equipment

	A	B
Appl. Equipment:	Backpack	Backpack
Equipment Type:	SPRBAC	SPRBAC
Operation Pressure, Unit:	34 PSI	44 PSI
Nozzle Type:	DG	DG
Nozzle Size:	8002	11002
Nozzle Spacing, Unit:	18 IN	18 IN
Boom Length, Unit:	10 FT	10 FT
Boom Height, Unit:	18 IN	18 IN
Ground Speed, Unit:	3 MPH	3 MPH
Carrier:	WATER	WATER
Spray Volume, Unit:	15 gal/ac	15 gal/ac
Mix Size, Unit:	0.33 gallons	0.5 gallons
Propellant:	COMCO2	COMCO2

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Pest Type						
Pest Code						
Pest Scientific Name						
Pest Name						
Crop Code		GLXMA	GLXMA	GLXMA		
BBCH Scale		BSOY	BSOY	BSOY		
Crop Scientific Name		Glycine max	Glycine max	Glycine max		
Crop Name		Soybean	Soybean	Soybean		
Rating Date		Oct-11-2011	Oct-11-2011	Oct-11-2011		
Rating Type		YIELD	MOISTURE	YIELD		
Rating Unit		LB	%	BU		
Number of Subsamples		1	1	1		
Days After First/Last Applic.		173	120	173	120	173
Trt-Eval Interval						
Plant-Eval Interval		142 DP-1	142 DP-1	142 DP-1		
Days After Emergence		132 DE-1	132 DE-1	132 DE-1		
ARM Action Codes						TY1
Number of Decimals			1	1		1

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	17	18	19
1	Roundup Power Max	0.77 lb ae/a		22 oz/a		A	11.6 a	16.3 a	43.9 a
	1 N-pak ams	5 % v/v		3 qt/a		A			
1	Roundup Power Max	0.77 lb ae/a		22 oz/a		B			
	1 N-pak ams	5 % v/v		3 qt/a		B			
2	Zidua	0.133 lb ai/a		2.5 oz/a		A	14.5 a	16.4 a	54.3 a
	2 Sharpen	0.0223 lb ai/a		1 oz/a		A			
2	Roundup Power Max	0.77 lb ae/a		22 oz/a		A			
	2 N-pak ams	5 % v/v		3 qt/a		A			
	2 MSO	1 % v/v		0.6 qt/a		A			
2	Roundup Power Max	0.77 lb ae/a		22 oz/a		B			
	2 N-pak ams	5 % v/v		3 qt/a		B			
3	Zidua	0.16 lb ai/a		3 oz/a		A	14.2 a	14.7 a	54.3 a
	3 Sharpen	0.0223 lb ai/a		1 oz/a		A			
3	Roundup Power Max	0.77 lb ae/a		22 oz/a		A			
	3 N-pak ams	5 % v/v		3 qt/a		A			
	3 MSO	1 % v/v		0.6 qt/a		A			
3	Roundup Power Max	0.77 lb ae/a		22 oz/a		B			
	3 N-pak ams	5 % v/v		3 qt/a		B			
4	Zidua	0.08 lb ai/a		1.5 oz/a		A	13.7 a	12.2 a	54.0 a
	4 Valor SX	0.064 lb ai/a		2 oz/a		A			
	4 2,4-D Ester	0.5 lb ai/a		1 pt/a		A			
4	Roundup Power Max	0.77 lb ae/a		22 oz/a		A			
	4 N-pak ams	5 % v/v		3 qt/a		A			
4	Roundup Power Max	0.77 lb ae/a		22 oz/a		B			
	4 N-pak ams	5 % v/v		3 qt/a		B			
5	Zidua	0.133 lb ai/a		2.5 oz/a		A	15.0 a	13.6 a	58.3 a
	5 Verdict	0.218 lb ai/a		5 oz/a		A			
5	Roundup Power Max	0.77 lb ae/a		22 oz/a		A			
	5 N-pak ams	5 % v/v		3 qt/a		A			
	5 MSO	1 % v/v		0.6 qt/a		A			
5	Roundup Power Max	0.77 lb ae/a		22 oz/a		B			
	5 N-pak ams	5 % v/v		3 qt/a		B			
6	Valor XLT @ 3.0 oz						11.8 a	11.9 a	46.7 a
	6 Valor SX	0.056 lb ai/a		1.76 oz/a		A			
	6 Classic	0.0194 lb ai/a		1.24 oz/a		A			
	6 2,4-D Ester	0.5 lb ai/a		1 pt/a		A			
6	Roundup Power Max	0.77 lb ae/a		22 oz/a		A			
	6 N-pak ams	5 % v/v		3 qt/a		A			

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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ARM Action Codes						TY1
Number of Decimals		1		1		1

Trt No.	Treatment Name	Rate	Unit	Other Rate	Other Unit	Appl Code	17	18	19
6	Roundup Power Max	0.77 lb	ae/a	22 oz/a		B			
6	N-pak ams	5 %	v/v	3 qt/a		B			
7	Canopy	0.164 lb	ai/a	3.5 oz/a		A	15.4 a	13.1 a	59.9 a
7	2,4-D Ester	0.5 lb	ai/a	1 pt/a		A			
7	Roundup Power Max	0.77 lb	ae/a	22 oz/a		A			
7	N-pak ams	5 %	v/v	3 qt/a		A			
7	Roundup Power Max	0.77 lb	ae/a	22 oz/a		B			
7	N-pak ams	5 %	v/v	3 qt/a		B			
8	Authority XL	0.175 lb	ai/a	4 oz/a		A	13.0 a	13.6 a	50.4 a
8	2,4-D Ester	0.5 lb	ai/a	1 pt/a		A			
8	Roundup Power Max	0.77 lb	ae/a	22 oz/a		A			
8	N-pak ams	5 %	v/v	3 qt/a		A			
8	Roundup Power Max	0.77 lb	ae/a	22 oz/a		B			
8	N-pak ams	5 %	v/v	3 qt/a		B			
LSD (P=.05)							3.36	5.00	13.81
Standard Deviation							1.92	2.85	7.89
CV							14.0	20.42	14.96
Bartlett's X2							6.71	10.192	8.471
P(Bartlett's X2)							0.46	0.178	0.293
Replicate F							0.103	0.849	0.022
Replicate Prob(F)							0.9026	0.4487	0.9779
Treatment F							1.616	1.092	1.434
Treatment Prob(F)							0.2104	0.4186	0.2674

Crop Code
 GLXMA, BSOY, Glycine max, = US
Rating Type
 YIELD = yield
Rating Unit
 LB = pound
 % = percent
 BU = bushel
Plant-Eval Interval
 142 DP-1 = 1 May-22-2011
ARM Action Codes
 TY1 = 3.872*[C17]*(100-[C18])/86.5

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