

The Ohio State University

USB Row Spacing and Plant Populations Study

Trial ID: 13USBROW Location: Western Branch E-2 Trial Year: 2013
 Protocol ID: Investigator: Dr. Mark M. Loux
 Project ID: Study Director:
 Sponsor Contact:

General Trial Information

Investigator: Dr. Mark M. Loux Title: Professor

Crop 1: GLXMA Glycine max
Variety: Seed Consultants SC3833LL
Description: Liberty Link

Crop Description
 Soybean
BBCH Scale: BSOY

Depth, Unit: 0.5 IN

Soil Temperature, Unit: 66 F
 Soil Moisture: DRY dry
 Seed Bed: MEDIUM medium

Planting Date: May-28-2013
Planting Method: PLANTD planted
Planting Equipment: PP Plot Planter
Harvested Width, Unit: 5 FT
Harvested Length, Unit: 40 FT

Pest Description

Pest 1 Type: W

Site and Design

Treated Plot Width: 10 FT
 Treated Plot Length: 40 FT
 Treated Plot Area: 400 FT² Treatments: 12
 Replications: 4

Study Design: SPLPLO Split-Plot

Application Description

	A	B	C
Application Date:	May-30-2013	Jun-28-2013	Jul-26-2013
Appl. Start Time:	8:00 AM	9:30 AM	9:00 AM
Appl. Stop Time:	9:00 AM	10:00 AM	9:30 AM
Application Method:	SPRAY	SPRAY	SPRAY
Application Timing:	PRE	EPO	POST
Application Placement:	BROSOIL	BROFOL	BROFOL
Applied By:	REEB	Johnson	
Air Temperature, Unit:	72.5 F	73 F	66 F
% Relative Humidity:	69.1	77	88
Wind Velocity, Unit:	4.9 MPH	7 MPH	1 MPH
Wind Direction:	SSW	W	S
Dew Presence (Y/N):	N no	N no	N no
Soil Temperature, Unit:	66 F	69 F	69 F
Soil Moisture:	MOIST	MOIST	DRY
% Cloud Cover:	30	30	5
Next Moisture Occurred On:	May-31-2013	Jun-29-2013	Jul-27-2013
Time to Next Moisture, Unit:	1 DAY	1 DAY	1 DAY

Crop Stage At Each Application

	A	B	C
Crop 1 Code, BBCH Scale:	GLXMA BSOY	GLXMA BSOY	GLXMA BSOY

Pest Stage At Each Application

	A	B	C
Pest 1 Code, Type, Scale:	W	W	W

Application Equipment

	A	B C
Appl. Equipment:	10' AI XR	
Equipment Type:	SPRBAC	
Operation Pressure, Unit:	46 PSI	
Nozzle Type:	AI XR	
Nozzle Size:	110015	
Nozzle Spacing, Unit:	18 IN	
Boom Length, Unit:	10 FT	
Boom Height, Unit:	20 IN	
Ground Speed, Unit:	3 MPH	
Carrier:	WATER	
Spray Volume, Unit:	15 GPA	
Mix Size, Unit:	0.33 Gallons	
Propellant:	CO2	

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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	
Description	15" Rows	30" Rows	Corrected for	>
Rating Date	Nov-6-2013	Nov-6-2013	Nov-6-2013	
Rating Type	YIELD	YIELD	Yield	
Rating Unit	BU	BU	bu	
Sample Size, Unit	250 FT2	200 FT2		
Collection Basis, Unit	5 ROW	2 ROW		
Number of Subsamples	1	1	1	
SE Group No.	14	15	16	
Days After First/Last Applic.	160 103	160 103	160 103	
Trt-Eval Interval				
Plant-Eval Interval	162 DP-1	162 DP-1	162 DP-1	
ARM Action Codes	TY1	TY2		
Number of Decimals	1	1	1	

Trt Treatment No. Name	Other Rate	Other Rate	Growth Unit	Appl Stage	Code	11	12	13
1 15 Inch Rows						71.5 a	89.3 a	71.5 a
1 PREFIX	2 pt/a		PRE	A				
1 Dual II Magnum	1.1 pt/a							
1 Reflex	0.95 pt/a							
1 Sencor 75DF	0.5 lb/a		PRE	A				
1 Liberty	29 oz/a		POST	C				
1 N-PAK AMS	2.5 % v/v		POST	C				
1 70,000 Seeds/acre								
2 15 Inch Rows						73.9 a	92.4 a	73.9 a
2 PREFIX	2 pt/a		PRE	A				
2 Sencor 75DF	0.5 lb/a		PRE	A				
2 Liberty	29 oz/a		POST	C				
2 N-PAK AMS	2.5 % v/v		POST	C				
2 130,000 Seeds/acre								
3 15 Inch Rows						69.5 a	86.9 a	69.5 a
3 PREFIX	2 pt/a		PRE	A				
3 Sencor 75DF	0.5 lb/a		PRE	A				
3 Liberty	29 oz/a		POST	C				
3 N-PAK AMS	2.5 % v/v		POST	C				
3 190,000 Seeds/acre								
4 15 Inch Rows						53.7 bcd	67.1 bcd	53.7 a
4 PREFIX	2 pt/a		EPO	B				
4 Liberty	29 oz/a		EPO	B				
4 N-PAK AMS	2.5 % v/v		EPO	B				
4 70,000 Seeds/acre								
5 15 Inch Rows						68.3 ab	85.3 ab	68.3 a
5 PREFIX	2 pt/a		EPO	B				
5 Liberty	29 oz/a		EPO	B				
5 N-PAK AMS	2.5 % v/v		EPO	B				
5 130,000 Seeds/acre								

Means followed by same letter do not significantly differ (P=.05, LSD)
 Mean separations are based on the complete error term.
 Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Number of Decimals	1	1	1		
Trt Treatment No. Name	Other Rate	Other Rate	Growth Unit Stage	Appl Code	
					11 12 13
12 30 Inch Rows					52.3 cd 65.4 cd 65.4 a
12 PREFIX	2 pt/a		EPO	B	
12 Liberty	29 oz/a		EPO	B	
12 N-PAK AMS	2.5 % v/v		EPO	B	
12 190,000 Seeds/acre					
LSD (P=.05)					15.35 19.19 18.26
Standard Deviation					10.52 13.15 12.51
CV					17.42 17.42 18.68
Bartlett's X2					25.672 25.672 28.499
P(Bartlett's X2)					0.007* 0.007* 0.003*
Skewness					-0.8455* -0.8455* -1.4583*
Kurtosis					1.6498* 1.6498* 3.0401*
Replicate F					0.068 0.068 0.103
Replicate Prob(F)					0.9762 0.9762 0.9575
Treatment F					3.932 3.932 1.491
Treatment Prob(F)					0.0024 0.0024 0.1991

Crop Code
 GLXMA, BSOY, Glycine max, = US

Rating Type
 YIELD = yield

Rating Unit
 BU = bushel

FT2 = square foot

ROW = row
Plant-Eval Interval
 162 DP-1 = 1 GLXMA May-28-2013

ARM Action Codes
 TY1 = 2.904*[9]*(100-[10])/87
 TY2 = 3.63*[9]*(100-[10])/87