

MSU Weed Science Research Program

Weed control and dry bean tolerance with BroadAxe

Trial ID: DB01-12 Study Dir.: Sprague, Powell  
Conducted: T-10 Campus Investigator: Christy Sprague

Date Planted: Jun/05/2012 Row Spacing: 30 IN  
Variety: 'Zorro' black bean No. of Reps: 4  
Population: 109,000 seeds/Acre % OM: 2.5  
Soil Type: Loam pH: 7.1  
Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow; spring soil finish  
Fertilizer: 175 lb/A 19-19-19 with planter

Crop Code Common Name  
1. PHSVX BEAN, DRY

Application Description

A  
Application Timing: PRE  
Date Treated: Jun/05/2012  
Time Treated: 10:00 AM  
% Cloud Cover: 50  
Air Temp., Unit: 64 F  
% Relative Humidity: 54  
Wind Speed/Unit/Dir: 4 mph NE  
Soil Temp., Unit: 61 F  
Soil/Leaf Surface M: 3 -  
Soil Moist (1=w 5=d): 2

Crop Stage at Each Application

A  
Crop Name: PHSVX  
Height (In.): -  
Stage (L): -

Weed Density (plants/sq. ft.)

1  
Date: Jul/09/2012  
Weed Name: ANGR  
Density: 35  
Date: Jul/09/2012  
Weed Name: CHEAL  
Density: 9  
Date: Jul/09/2012  
Weed Name: AMAPO  
Density: 16  
Date: Jul/09/2012  
Weed Name: AMBEL  
Density: 2

Application Equipment

Appl Sprayer Speed Nozzle Nozzle Nozzle Nozzle Boom  
A Type MPH Type Size Height Spacing Width GPA Carrier PSI  
A Cub 3.8 AI XR 11003 22" 20" 100" 19 Water 28

Comments: There was less than 0.1-inches of rainfall within the first two weeks of planting. Therefore there was poor incorporation of the soil-applied herbicides.

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Weed Code		ANGR	CHEAL	AMAPO	AMBEL
Crop Code	PHSVX				
Rating Data Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jun/25/2012	Jun/25/2012	Jun/25/2012	Jun/25/2012	Jun/25/2012
Trt-Eval Interval	20 DA-A				
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code					
1	Untreated							0	0	0	0	0
2	Weed-free							0	99	99	99	99
3	Broadaxe	7	L	13	fl oz/a	PRE	A	3	0	0	0	0
4	Broadaxe	7	L	20	fl oz/a	PRE	A	5	35	0	18	0
5	Broadaxe	7	L	30	fl oz/a	PRE	A	19	66	0	46	13
6	Broadaxe	7	L	40	fl oz/a	PRE	A	31	68	13	69	13
7	Spartan	4	L	3.5	fl oz/a	PRE	A	4	0	0	33	0
8	Dual Magnum	7.62	L	16.46	fl oz/a	PRE	A	4	36	0	18	0
9	Outlook	6	L	21	fl oz/a	PRE	A	13	60	0	5	0
LSD (P=.05)								3.0	5.2	4.7	18.4	16.1
CV								23.78	8.85	25.76	39.69	80.01

Means followed by same letter do not significantly differ (P=.05, LSD)