

MSU Weed Science Research Program

Preharvest desiccants in dry edible beans

Trial ID: DB09-11 Study Dir.: Sprague, Powell  
Conducted: SVREC Investigator: Christy Sprague

Date Planted: Variety: Jaguar Black Row Spacing: 20 IN  
Population: 106,000 seeds/acre No. of Reps: 4  
Soil Type: Clay Loam % OM: 2.6  
Plot Size: 10 X 30 FT pH: 7.8  
Design: RANDOMIZED COMPLETE BLOCK

Tillage: conventional  
Crop Code Common Name  
1. PHSVX BEAN, DRY

Application Description

A  
Application Timing: PREHARV  
Date Treated: 8/29/2011  
Time Treated: 1:45 pm  
% Cloud Cover: 40  
Air Temp., Unit: 81 F  
% Relative Humidity: 45  
Wind Speed/Unit/Dir: 3 mph SW  
Soil Temp., Unit: 69 F  
Soil/Leaf Surface M: 5 5  
Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

A  
Crop Name: PHSVX  
Height (In.): 18"  
Stage (L): R7

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	29"	20"	100"	19	water	28

Comments: At desiccant application, dry bean plants were approximately 45% yellow. At 13 DAT, all treatments provided 99% desiccation of leaves. There was only a slight amount of green stems in treatments 3, 6, and 9.

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## Weed Code

Crop Code

Rating Data Type

Rating Unit

Rating Date

Trt-Eval Interval

# Subsamples, Dec.

PHSVX PHSVX PHSVX PHSVX  
 Desiccation Desiccation moisture yield  
 percent percent percent cwt/acre  
 9/2/2011 9/6/2011 10/5/2011 10/5/2011  
 3 DAT 7 DAT 37 DA-A at 18% M  
 1 1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code				
1	Roundup PowerMax	4.5	SL	22	fl oz/a	PREHARV	A	81.5	92.3	19.6	23.2
1	AMS		WG	17	lb/100 gal	PREHARV	A				
2	Gramoxone Inteon	2	L	1	pt/a	PREHARV	A	78.0	90.0	18.3	26.0
2	Activator 90		L	0.25	% v/v	PREHARV	A				
3	Gramoxone Inteon	2	L	2	pt/a	PREHARV	A	85.8	93.5	18.8	22.9
3	Activator 90		L	0.25	% v/v	PREHARV	A				
4	Valor	51	WG	1.5	oz/a	PREHARV	A	91.5	97.5	18.7	23.8
4	MSO		L	2	% v/v	PREHARV	A				
5	Valor	51	WG	2	oz/a	PREHARV	A	92.0	97.5	18.1	20.7
5	MSO		L	2	% v/v	PREHARV	A				
6	Aim	2	L	2	fl oz/a	PREHARV	A	82.8	85.3	17.8	23.8
6	MSO		L	1	% v/v	PREHARV	A				
7	Sharpen	2.85	L	1	fl oz/a	PREHARV	A	91.3	98.8	18.6	16.5
7	MSO		L	1	% v/v	PREHARV	A				
7	AMS		WG	17	lb/100 gal	PREHARV	A				
8	Sharpen	2.85	L	2	fl oz/a	PREHARV	A	94.0	98.8	18.5	19.2
8	MSO		L	1	% v/v	PREHARV	A				
8	AMS		WG	17	lb/100 gal	PREHARV	A				
9	Untreated							55.0	63.8	18.5	23.5
10	Valor	51	WG	2	oz/a	PREHARV	A	93.5	98.8	18.5	19.4
10	Roundup PowerMax	4.5	SL	22	fl oz/a	PREHARV	A				
10	MSO		L	2	% v/v	PREHARV	A				
10	AMS		WG	17	lb/100 gal	PREHARV	A				
11	Aim	2	L	1	fl oz/a	PREHARV	A	91.5	98.8	18.7	20.9
11	Sharpen	2.85	L	2	fl oz/a	PREHARV	A				
11	MSO		L	1	% v/v	PREHARV	A				
12	Aim	2	L	2	fl oz/a	PREHARV	A	91.8	97.8	18.6	20.2
12	Sharpen	2.85	L	1	fl oz/a	PREHARV	A				
12	MSO		L	1	% v/v	PREHARV	A				
13	Aim	2	L	1	fl oz/a	PREHARV	A	88.5	94.0	18.4	23.8
13	Gramoxone Inteon	2	L	1.2	pt/a	PREHARV	A				
13	MSO		L	1	% v/v	PREHARV	A				
14	Reglone	2	L	1	pt/a	PREHARV	A	87.0	95.0	16.9	19.8
14	Activator 90		L	0.25	% v/v	PREHARV	A				
15	Reglone	2	L	1.5	pt/a	PREHARV	A	88.8	96.8	17.7	20.6
15	Activator 90		L	0.25	% v/v	PREHARV	A				
16	Reglone	2	L	2	pt/a	PREHARV	A	91.5	98.5	18.3	19.5
16	Activator 90		L	0.25	% v/v	PREHARV	A				
17	A12725	1.25	L	1.6	pt/a	PREHARV	A	87.3	95.8	13.4	23.8
18	A12725	1.25	L	2.4	pt/a	PREHARV	A	91.8	98.3	17.7	21.5
19	A12725	1.25	L	3.2	pt/a	PREHARV	A	90.8	98.5	18.0	17.5

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Grow Stg	Appl Code	PHSVX Desiccation percent	PHSVX Desiccation percent	PHSVX moisture percent	PHSVX yield cwt/acre
								9/2/2011	9/6/2011	10/5/2011	10/5/2011
								3 DAT	7 DAT	37 DA-A	at 18% M
										1	1
	LSD (P=.05)							4.37	4.56	3.43	3.82
	Standard Deviation							3.09	3.22	2.40	2.67
	CV							3.55	3.42	13.31	12.48

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.