

The effect of preharvest herbicide treatments on two classes of dry beans

Trial ID: DB02-17 Study Dir.:
 Conducted: SVREC Investigator: Christy Sprague

Planting Date: Jun-8-2017 **Row Spacing:** 30 IN
Variety: see comments **No. of Reps:** 4
Population: 109000 S/A **% OM:** 7.0
Soil Type: CL clay loam **pH:** 2.7
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall primary tillage followed by spring soil finish
Fertilizer: 130 lb/A (60 lb/A N) of urea was broadcast and incorporated prior to planting.

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1			
Crop	Code	Common Name	
1	PHSVX	Dry edible bean	

Application Description

A
Application Timing: PREHARV
Date Treated: Aug-25-2017
Time Treated: 12:51 PM
% Cloud Cover: 10
Air Temp., Unit: 66 F
% Relative Humidity: 45
Wind Speed/Unit/Dir: 6 mph NW
Soil Temp, Unit: 68 F
Leaf Moist/Dew Presence (Y/N): 5
Soil Moist: 5

Crop Stage at Each Application

A
Crop 1 Name: PHSVX
Height: 18 "
Stage: see comm

Weed Stage at Each Application

A
Weed 1 Name:
Height:
Stage:

Application Equipment

Appl	Sprayer Type	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 MPH	AIXR	11003	41 "	20 "	100 "	19 GPA	WATER	30 PSI

Comments: Two varieties were planted: 'Zenith' black bean and 'Merlin' navy bean. At desiccation navy beans were at 70% leaf and pod yellowing and black beans were at 65% leaf and 70% pod yellowing.

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Crop Code	PHSVX	PHSVX	PHSVX	PHSVX	PHSVX
Rating Date	Aug-28-2017	Sep-1-2017	Sep-8-2017	Sep-12-2017	Sep-12-2017
Rating Type	DESICC	DESICC	DESICC	moisture	yield
Rating Unit	percent	percent	percent	percent	cwt/acre
Trt-Eval Interval	3 DA-A	7 DA-A	14 DA-A	18 DA-A	at 18% M
Number of Decimals	0	0	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate Unit	Appl Code	*	*	*	*	*
1	'Zenith' black bean					64	96	98	16.0	15.4
1	Sharpen	2.85	L	1 fl oz/a	A					
1	MSO		L	1 % v/v	A					
1	AMS		WG	17 lb/100 gal	A					
2	'Zenith' black bean					65	87	95	18.1	17.1
2	Gramoxone SL	2	L	2 pt/a	A					
2	Surfactant		L	0.25 % v/v	A					
3	'Zenith' black bean					56	92	98	16.4	18.8
3	Valor	51	WG	1.5 oz/a	A					
3	MSO		L	1 % v/v	A					
4	'Zenith' black bean					49	78	98	18.5	20.1
4	Roundup PowerMax	4.5	SL	22 fl oz/a	A					
4	AMS		WG	17 lb/100 gal	A					
5	'Zenith' black bean					44	55	84	19.8	17.8
5	Untreated									
6	'Zenith' black bean					49	58	87	19.5	17.4
6	Untreated									
7	'Zenith' black bean					53	75	87	17.7	17.7
7	Aim	2	L	2 fl oz/a	A					
7	MSO		L	1 % v/v	A					
8	'Zenith' black bean					58	97	99	15.5	17.8
8	Sharpen	2.85	L	2 fl oz/a	A					
8	MSO		L	1 % v/v	A					
8	AMS		WG	17 lb/100 gal	A					
9	'Zenith' black bean					59	98	100	16.5	17.1
9	Sharpen	2.85	L	1 fl oz/a	A					
9	Roundup PowerMax	4.5	SL	22 fl oz/a	A					
9	MSO		L	1 % v/v	A					
9	AMS		WG	17 lb/100 gal	A					
10	'Zenith' black bean					63	94	98	16.5	15.9
10	Sharpen	2.85	L	1 fl oz/a	A					
10	Gramoxone SL	2	L	2 pt/a	A					
10	MSO		L	1 % v/v	A					
10	AMS		WG	17 lb/100 gal	A					
11	'Merlin' navy bean					55	96	98	16.0	12.5
11	Sharpen	2.85	L	1 fl oz/a	A					
11	MSO		L	1 % v/v	A					
11	AMS		WG	17 lb/100 gal	A					

* Adjusted means

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Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Code	*	*	*	*	*
12	'Merlin' navy bean						55	83	91	17.8	16.1
	12 Gramoxone SL	2 L		2 pt/a		A					
	12 Surfactant	L		0.25 % v/v		A					
13	'Merlin' navy bean						55	88	95	16.2	17.8
	13 Valor	51 WG		1.5 oz/a		A					
	13 MSO	L		1 % v/v		A					
14	'Merlin' navy bean						45	75	93	17.8	17.5
	14 Roundup PowerMax	4.5 SL		22 fl oz/a		A					
	14 AMS	WG		17 lb/100 gal		A					
15	'Merlin' navy bean						45	56	83	19.0	17.3
	15 Untreated										
16	'Merlin' navy bean						45	59	85	20.2	16.5
	16 Untreated										
17	'Merlin' navy bean						50	78	90	19.5	15.2
	17 Aim	2 L		2 fl oz/a		A					
	17 MSO	L		1 % v/v		A					
18	'Merlin' navy bean						54	98	100	15.2	17.2
	18 Sharpen	2.85 L		2 fl oz/a		A					
	18 MSO	L		1 % v/v		A					
	18 AMS	WG		17 lb/100 gal		A					
19	'Merlin' navy bean						53	98	100	15.4	16.0
	19 Sharpen	2.85 L		1 fl oz/a		A					
	19 Roundup PowerMax	4.5 SL		22 fl oz/a		A					
	19 MSO	L		1 % v/v		A					
	19 AMS	WG		17 lb/100 gal		A					
20	'Merlin' navy bean						56	94	95	15.8	14.2
	20 Sharpen	2.85 L		1 fl oz/a		A					
	20 Gramoxone SL	2 L		2 pt/a		A					
	20 MSO	L		1 % v/v		A					
	20 AMS	WG		17 lb/100 gal		A					
	LSD P=.05						5.3	6.2	5.2	2.92	3.17
	Standard Deviation						3.8	4.4	3.7	2.06	2.23
	CV						7.06	5.26	3.9	11.87	13.32

* Adjusted means