

**Evaluation of new soil-applied herbicides for weed control in dry edible beans**

Trial ID: DB11-18 Study Dir.: Sprague, Powell, Stiles  
 Conducted: Campus, T-15E Investigator: Christy Sprague

**Planting Date:** Jun-6-2018 **Row Spacing:** 30 IN  
**Variety:** 'Zenith' black bean **No. of Reps:** 4  
**Population:** 106000 seeds/A **% OM:** 2.7  
**Soil Type:** L loam **pH:** 6.1  
**Plot Size:** 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

**Tillage/Previous Crops:** Spring disked, spring soil finished three times  
**Fertilizer:**

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1	ANGR	mainly foxtail species	Annual grass
2	CHEAL	lambquarters, common	Chenopodium album
3	AMAPO	amaranth, Powell	Amaranthus powellii
4	ABUTH	velvetleaf	Abutilon theophrasti
Crop	Code	Common Name	
1	PHSVX	Dry Edible Bean	

**Application Description**

**Application Timing:** A  
 PRE  
**Date Treated:** Jun-6-2018  
**Time Treated:** 2:45 PM  
**% Cloud Cover:** 10  
**Air Temp., Unit:** 69 F  
**% Relative Humidity:** 51  
**Wind Speed/Unit/Dir:** 1 mph S  
**Soil Temp, Unit:** 72 F  
**Leaf Moist/Dew Presence (Y/N):**  
**Soil Moist:** 5

**Crop Stage at Each Application**

A  
**Crop 1 Name:** PHSVX  
**Height:**  
**Stage:**

**Weed Stage at Each Application**

A  
**Weed 1 Name:** ANGR  
**Height:**  
**Stage:**  
**Weed 2 Name:** CHEAL  
**Height:**  
**Stage:**  
**Weed 3 Name:** AMAPO  
**Height:**  
**Stage:**  
**Weed 4 Name:** ABUTH  
**Height:**  
**Stage:**

**Weed Density**

	1	2	3	4
<b>Date:</b>	Jun-6-2018	Jun-6-2018	Jun-6-2018	Jun-6-2018
<b>Weed Name:</b>	ANGR	CHEAL	AMAPO	ABUTH
<b>Density:</b>	1 FT2	3 FT2	2 FT2	1 FT2

**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	22 "	20 "	100 "	19 GPA	WATER	30 PSI

**Comments:**

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Location: Campus, T-15E

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code				ANGR	CHEAL	AMAPO	ABUTH
Crop Code		PHSVX	PHSVX				
Rating Date		Jun-21-2018	Jun-27-2018	Jun-27-2018	Jun-27-2018	Jun-27-2018	Jun-27-2018
Rating Type		injury	injury	control	control	control	control
Rating Unit		percent	percent	percent	percent	percent	percent
Trt-Eval Interval		15 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A	21 DA-A
Number of Decimals		0	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code						
1	Prowl H2O	3.8 L		2 pt/a		PRE	A	0	0	94	90	93	65
2	Valor	51 WG		1.5 oz/a		PRE	A	1	0	79	71	95	74
3	SA-0370104	3 L		6.4 fl oz/a		PRE	A	1	0	88	60	65	65
4	SA-0370104	3 L		4.3 fl oz/a		PRE	A	2	0	94	94	94	70
4	Prowl H2O	3.8 L		2 pt/a		PRE	A						
5	SA-0370104	3 L		6.4 fl oz/a		PRE	A	1	0	96	90	90	81
5	Prowl H2O	3.8 L		2 pt/a		PRE	A						
6	SA-0370104	3 L		4.3 fl oz/a		PRE	A	1	0	95	76	98	71
6	Valor	51 WG		1 oz/a		PRE	A						
7	SA-0370104	3 L		6.4 fl oz/a		PRE	A	0	0	95	63	95	74
7	Valor	51 WG		1 oz/a		PRE	A						
8	Untreated							0	0	0	0	0	0
LSD P=.05								1.5	.	12.3	20.4	21.6	18.2
Standard Deviation								1.0	0.0	8.4	13.9	14.7	12.4
CV								114.96	0.0	10.47	20.42	18.65	19.83

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Pest Code		ANGR	CHEAL	AMAPO	ABUTH
Crop Code	PHSVX				
Rating Date	Jul-9-2018	Jul-9-2018	Jul-9-2018	Jul-9-2018	Jul-9-2018
Rating Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Trt-Eval Interval	33 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A
Number of Decimals	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code					
1	Prowl H2O	3.8 L		2 pt/a		PRE	A	3	89	74	76	20
2	Valor	51 WG		1.5 oz/a		PRE	A	1	59	10	95	15
3	SA-0370104	3 L		6.4 fl oz/a		PRE	A	0	81	0	5	43
4	SA-0370104	3 L		4.3 fl oz/a		PRE	A	5	85	70	68	38
4	Prowl H2O	3.8 L		2 pt/a		PRE	A					
5	SA-0370104	3 L		6.4 fl oz/a		PRE	A	2	93	73	80	50
5	Prowl H2O	3.8 L		2 pt/a		PRE	A					
6	SA-0370104	3 L		4.3 fl oz/a		PRE	A	3	74	46	76	30
6	Valor	51 WG		1 oz/a		PRE	A					
7	SA-0370104	3 L		6.4 fl oz/a		PRE	A	3	80	40	83	49
7	Valor	51 WG		1 oz/a		PRE	A					
8	Untreated							0	0	0	0	0
LSD P=.05								3.6	11.9	16.5	14.5	22.3
Standard Deviation								2.5	8.1	11.2	9.9	15.1
CV								128.11	11.59	28.64	16.39	49.67