

**Crop tolerance and weed control with sulfentrazone in dry edible beans**

Trial ID: DB10-18 Study Dir.: Sprague, Powell, Stiles  
 Conducted: Campus, T-15W Investigator: Christy Sprague

**Planting Date:** Jun-11-2018 **Row Spacing:** 30 IN  
**Variety:** 'Zenith' black bean **No. of Reps:** 4  
**Population:** 109000 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:**  
**Fertilizer:**

**Crop and Weed Description**

Weed	Code	Common Name	Scientific Name
1	CHEAL	lambsquarters, common	Chenopodium album
Crop	Code	Common Name	
1	PHSVX	Dry edible bean	

**Application Description**

**A**  
**Application Timing:** PRE  
**Date Treated:** Jun-12-2018  
**Time Treated:** 5:00 PM  
**% Cloud Cover:** 40  
**Air Temp., Unit:** 76 F  
**% Relative Humidity:** 68  
**Wind Speed/Unit/Dir:** 7 MPH SE  
**Soil Temp, Unit:**  
**Leaf Moist/Dew Presence (Y/N):** 5  
**Soil Moist:** 3

**Crop Stage at Each Application**

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

**Weed Stage at Each Application**

**A**  
**Weed 1 Name:** CHEAL  
**Height:**  
**Stage:**

**Weed Density**

**1**  
**Date:** Jun-12-2018  
**Weed Name:** CHEAL  
**Density:** 3 FT<sup>2</sup>

**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:** A broadcast application of Raptor (4 fl oz) + Basagran (16 fl oz) + Reflex (16 fl oz) + SelectMax (12 fl oz) + COC (1% v/v) + AMS (2.5 lb) was applied on July 2, 2018 to keep the area weed-free prior to harvest.

**Crop tolerance and weed control with sulfentrazone in dry edible beans**

**Trial ID: DB10-18**

**Location: Campus, T-15W**

**Investigator: Christy Sprague**

**Study Director: Sprague, Powell, Stiles**

Pest Code		CHEAL		CHEAL	
Crop Code		PHSVX		PHSVX	PHSVX
Rating Date		Jun-25-2018	Jun-25-2018	Jul-2-2018	Jul-2-2018
Rating Type		injury	control	injury	control
Rating Unit		percent	percent	percent	percent
Trt-Eval Interval		13 DA-A	13 DA-A	20 DA-A	20 DA-A
Number of Decimals		0	0	0	0
					127 DA-C
					1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code					
1	Spartan Charge	3.5 L		2.5 fl oz/a		PRE	A	0	57	0	63	20.2
1	Roundup PowerMax	4.5 SL		32 fl oz/a		PRE	A					
1	AMS	WG		17 lb/100 gal		PRE	A					
2	Spartan Charge	3.5 L		3.75 fl oz/a		PRE	A	1	76	0	76	19.6
2	Roundup PowerMax	4.5 SL		32 fl oz/a		PRE	A					
2	AMS	WG		17 lb/100 gal		PRE	A					
3	Spartan Charge	3.5 L		5 fl oz/a		PRE	A	1	89	1	86	19.8
3	Roundup PowerMax	4.5 SL		32 fl oz/a		PRE	A					
3	AMS	WG		17 lb/100 gal		PRE	A					
4	Spartan Charge	3.5 L		5.75 fl oz/a		PRE	A	2	89	1	88	19.4
4	Roundup PowerMax	4.5 SL		32 fl oz/a		PRE	A					
4	AMS	WG		17 lb/100 gal		PRE	A					
5	Untreated							0	0	0	0	21.0
6	Antares	4 L		3 fl oz/a		PRE	A	2	91	0	91	19.9
6	Roundup PowerMax	4.5 SL		32 fl oz/a		PRE	A					
6	AMS	WG		17 lb/100 gal		PRE	A					
7	Antares	4 L		4.5 fl oz/a		PRE	A	0	40	0	45	20.3
7	Roundup PowerMax	4.5 SL		32 fl oz/a		PRE	A					
7	AMS	WG		17 lb/100 gal		PRE	A					
8	Antares	4 L		6 fl oz/a		PRE	A	2	78	0	77	19.3
8	Roundup PowerMax	4.5 SL		32 fl oz/a		PRE	A					
8	AMS	WG		17 lb/100 gal		PRE	A					
9	Antares	4 L		8 fl oz/a		PRE	A	3	99	1	98	19.0
9	Roundup PowerMax	4.5 SL		32 fl oz/a		PRE	A					
9	AMS	WG		17 lb/100 gal		PRE	A					
10	Valor	51 WG		2 oz/a		PRE	A	13	65	8	63	20.0
10	Roundup PowerMax	4.5 SL		32 fl oz/a		PRE	A					
10	AMS	WG		17 lb/100 gal		PRE	A					
	LSD P=.05							2.5	26.7	1.8	24.5	2.53
	Standard Deviation							1.7	18.3	1.3	16.8	1.74
	CV							79.82	26.82	130.3	24.44	8.78

**Crop tolerance and weed control with sulfentrazone in dry edible beans**

Trial ID: DB10-18

Location: Campus, T-15W

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	
Crop Code	PHSVX
Rating Date	Oct-23-2018
Rating Type	yield
Rating Unit	cwt/acre
Trt-Eval Interval	at 18% M
Number of Decimals	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code	
1	Spartan Charge	3.5	L	2.5	fl oz/a	PRE	A	30.6
1	Roundup PowerMax	4.5	SL	32	fl oz/a	PRE	A	
1	AMS		WG	17	lb/100 gal	PRE	A	
2	Spartan Charge	3.5	L	3.75	fl oz/a	PRE	A	35.6
2	Roundup PowerMax	4.5	SL	32	fl oz/a	PRE	A	
2	AMS		WG	17	lb/100 gal	PRE	A	
3	Spartan Charge	3.5	L	5	fl oz/a	PRE	A	34.5
3	Roundup PowerMax	4.5	SL	32	fl oz/a	PRE	A	
3	AMS		WG	17	lb/100 gal	PRE	A	
4	Spartan Charge	3.5	L	5.75	fl oz/a	PRE	A	31.5
4	Roundup PowerMax	4.5	SL	32	fl oz/a	PRE	A	
4	AMS		WG	17	lb/100 gal	PRE	A	
5	Untreated							31.7
6	Antares	4	L	3	fl oz/a	PRE	A	36.1
6	Roundup PowerMax	4.5	SL	32	fl oz/a	PRE	A	
6	AMS		WG	17	lb/100 gal	PRE	A	
7	Antares	4	L	4.5	fl oz/a	PRE	A	35.8
7	Roundup PowerMax	4.5	SL	32	fl oz/a	PRE	A	
7	AMS		WG	17	lb/100 gal	PRE	A	
8	Antares	4	L	6	fl oz/a	PRE	A	30.3
8	Roundup PowerMax	4.5	SL	32	fl oz/a	PRE	A	
8	AMS		WG	17	lb/100 gal	PRE	A	
9	Antares	4	L	8	fl oz/a	PRE	A	27.2
9	Roundup PowerMax	4.5	SL	32	fl oz/a	PRE	A	
9	AMS		WG	17	lb/100 gal	PRE	A	
10	Valor	51	WG	2	oz/a	PRE	A	33.7
10	Roundup PowerMax	4.5	SL	32	fl oz/a	PRE	A	
10	AMS		WG	17	lb/100 gal	PRE	A	
	LSD P=.05							13.12
	Standard Deviation							9.04
	CV							27.64