

**Preharvest herbicides for weed desiccation in dry beans**

Trial ID: DB03-19 Study Dir.: Sprague, Powell, Stiles  
 Conducted: SVREC Investigator: Christy Sprague

**Planting Date:** Jun-19-2019 **Row Spacing:** 30 IN  
**Variety:** 'Merlin' navy bean **No. of Reps:** 4  
**Population:** 115000 seeds/A **% OM:** 2.4  
**Soil Type:** CL clay loam **pH:** 7.3  
**Plot Size:** 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

**Tillage/Previous Crops:** Fall disk ripped; spring soil finished  
**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	B
<b>Application Timing:</b>	80% y. pods	+ 3d
<b>Date Treated:</b>	Sep-16-2019	Sep-19-2019
<b>Time Treated:</b>	11:00 AM	11:30 AM
<b>% Cloud Cover:</b>	95	10
<b>Air Temp., Unit:</b>	69 F	71 F
<b>% Relative Humidity:</b>	90	62
<b>Wind Speed/Unit/Dir:</b>	4 mph NW	3 mph SE
<b>Soil Temp, Unit:</b>	68 F	70 F
<b>Leaf Moist/Dew Presence (Y/N):</b>	5	5
<b>Soil Moist:</b>	5	5

**Crop Stage at Each Application**

	A	B
<b>Crop 1 Name:</b>	PHSVX	PHSVX
<b>Height:</b>	19 "	19 "
<b>Stage:</b>	85% yell	95% yell

**Weed Stage at Each Application**

	A	B
<b>Weed 1 Name:</b>	CHEAL	CHEAL
<b>Height:</b>	35-60 " (45)	35-60 " (45)
<b>Stage:</b>		

**Weed Density**

	1
<b>Date:</b>	Sep-16-2019
<b>Weed Name:</b>	CHEAL
<b>Density:</b>	2 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	35 "	20 "	100 "	19 GPA	WATER	30 PSI
B	CUB	3.8 MPH	AIXR	11003	35 "	20 "	100 "	19 GPA	WATER	30 PSI

**Comments:** Dry bean desiccation (dry down) was uniform for all treatments including the untreated control. Therefore, only weed desiccation was evaluated.

## Preharvest herbicides for weed desiccation in dry beans

Trial ID: DB03-19

Location: SVREC

Investigator: Christy Sprague

Study Director: Sprague, Powell, Stiles

Pest Code	CHEAL	CHEAL
Crop Type, Code		
Rating Date	Sep-23-2019	Sep-30-2019
Rating Type	desiccation	desiccation
Rating Unit	percent	percent
Trt-Eval Interval	7 DA-A	14 DA-A
Number of Decimals	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code		
1	Untreated							0	0
2	Homeplate	L		3 % v/v		80% yellow A		4	4
3	Homeplate	L		5 % v/v		80% yellow A		5	4
4	Homeplate	L		7 % v/v		80% yellow A		6	6
5	Sharpen	1.85 L		1 fl oz/a		80% yellow A		8	6
5	MSO	L		1 % v/v		80% yellow A			
5	AMS	WG		17 lb/100 gal		80% yellow A			
6	Gramoxone	3 L		1.33 pt/a		80% yellow A		94	94
6	Surfactant	L		0.25 % v/v		80% yellow A			
7	Valor	51 WG		1.5 oz/a		80% yellow A		8	6
7	MSO	L		1 % v/v		80% yellow A			
8	Roundup PowerMax	4.5 SL		22 fl oz/a		80% yellow A		63	75
8	AMS	WG		17 lb/100 gal		80% yellow A			
9	Aim	2 L		2 fl oz/a		80% yellow A		3	5
9	MSO	L		1 % v/v		80% yellow A			
10	Sharpen	1.85 L		1 fl oz/a		80% yellow A		89	85
10	Gramoxone	3 L		1.33 pt/a		80% yellow A			
10	MSO	L		1 % v/v		80% yellow A			
10	AMS	WG		17 lb/100 gal		80% yellow A			
11	Valor	51 WG		1.5 oz/a		80% yellow A		83	79
11	Gramoxone	3 L		1.33 pt/a		80% yellow A			
11	MSO	L		1 % v/v		80% yellow A			
11	AMS	WG		17 lb/100 gal		80% yellow A			
12	Aim	2 L		2 fl oz/a		80% yellow A		96	96
12	Gramoxone	3 L		1.33 pt/a		80% yellow A			
12	MSO	L		1 % v/v		80% yellow A			
12	AMS	WG		17 lb/100 gal		80% yellow A			
13	Sharpen	1.85 L		1 fl oz/a		80% yellow A		85	88
13	MSO	L		1 % v/v		80% yellow A			
13	AMS	WG		17 lb/100 gal		80% yellow A			
13	Sharpen	1.85 L		1 fl oz/a		+3-5 d B			
13	MSO	L		1 % v/v		+3-5 d B			
13	AMS	WG		17 lb/100 gal		+3-5 d B			

**Preharvest herbicides for weed desiccation in dry beans**

**Trial ID: DB03-19**

**Location: SVREC**

**Investigator: Christy Sprague**

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

Pest Code	CHEAL	CHEAL
Crop Type, Code		
Rating Date	Sep-23-2019	Sep-30-2019
Rating Type	desiccation	desiccation
Rating Unit	percent	percent
Trt-Eval Interval	7 DA-A	14 DA-A
Number of Decimals	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code		
14	Sharpen	1.85	L	1 fl oz/a		80% yellow	A	86	88
14	MSO		L	1 % v/v		80% yellow	A		
14	AMS		WG	17 lb/100 gal		80% yellow	A		
14	Gramoxone	3	L	1.33 pt/a		+3-5 d	B		
14	Surfactant		L	0.25 % v/v		+3-5 d	B		
15	Gramoxone	3	L	1.33 pt/a		80% yellow	A	96	94
15	Surfactant		L	0.25 % v/v		80% yellow	A		
15	Sharpen	1.85	L	1 fl oz/a		+3-5 d	B		
15	MSO		L	1 % v/v		+3-5 d	B		
15	AMS		WG	17 lb/100 gal		+3-5 d	B		
LSD P=.05								7.0	7.2
Standard Deviation								4.9	5.0
CV								10.18	10.38