

Dry bean tolerance to tiafenacil (DCC-3825) applied preplant and preemergence

Trial ID: DB01-19 Study Dir.: Sprague, Powell, Stiles
 Conducted: SVREC Investigator: Christy Sprague

Planting Date: Jun-19-2019 **Row Spacing:** 30 IN
Variety: DCC-3825 **No. of Reps:** 4
Population: 115000 S/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: Spring Soil Finished Prior to 14EPP

Fertilizer: Fall disk ripped; Spring soil finish
 prior to 14 d EPP treatments.

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1	CHEAL	common lambsquarters	Chenopodium album
Crop	Code	Common Name	
1	PHSVX	Dry Edible Bean	

Application Description

	A	B
Application Timing:	14 EPP	PRE
Date Treated:	Jun-7-2019	Jun-19-2019
Time Treated:	2:10 PM	11:25 AM
% Cloud Cover:	5	100
Air Temp., Unit:	78 F	77 F
% Relative Humidity:	46	70
Wind Speed/Unit/Dir:	8 mph NE	5 mph NW
Soil Temp, Unit:	72 F	72 F
Leaf Moist/Dew Presence (Y/N):	5	5
Soil Moist:	4	4

Crop Stage at Each Application

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

Weed Stage at Each Application

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

Weed Density

	1
Date:	Jun-19-2019
Weed Name:	CHEAL
Density:	2 FT2

Application Equipment

Appl	Sprayer	Ground Speed	Nozzle Type	Nozzle Size	Nozzle Height	Nozzle Spacing	Boom Width	Spray Volume	Carrier	Operation Pressure
A	CUB	3.8 mph	AIXR	11003	28 "	20 "	100 "	19 GPA	WATER	30 psi
B	CUB	3.8 mph	AIXR	11003	28 "	20 "	100 "	19 GPA	WATER	30 psi

Comments: Plots were cultivated on July 20 for weed control. Plots were not harvested due to root rot that set in later in the season from excessive rains.

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Pest Code	Crop Type, Code	Rating Date	Rating Type	Rating Unit	Trt-Eval Interval	Number of Decimals	CHEAL					
							PHSVX Jul-2-2019 injury percent 13 DA-B 0	PHSVX Jul-8-2019 injury percent 19 DA-B 0	PHSVX Jul-19-2019 injury percent 30 DA-B 0	CHEAL Jul-19-2019 control percent 30 DA-B 0	PHSVX Aug-7-2019 injury percent 49 DA-B 0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Appl Timing	Appl Code					
1	Untreated							0	0	0	0	0
2	Tiafenacil (DCC-3825)	2.83	L	0.5 fl oz/a	14 EPP	A		0	1	0	0	0
2	MSO		L	1 % v/v	14 EPP	A						
3	Tiafenacil (DCC-3825)	2.83	L	1 fl oz/a	14 EPP	A		0	0	0	34	0
3	MSO		L	1 % v/v	14 EPP	A						
4	Tiafenacil (DCC-3825)	2.83	L	2 fl oz/a	14 EPP	A		0	0	0	35	0
4	MSO		L	1 % v/v	14 EPP	A						
5	Tiafenacil (DCC-3825)	2.83	L	3 fl oz/a	14 EPP	A		0	1	0	34	0
5	MSO		L	1 % v/v	14 EPP	A						
6	Tiafenacil (DCC-3825)	2.83	L	4 fl oz/a	14 EPP	A		0	0	0	40	0
6	MSO		L	1 % v/v	14 EPP	A						
7	Sharpen	2.85	L	1 fl oz/a	14 EPP	A		0	3	0	54	0
7	MSO		L	1 % v/v	14 EPP	A						
8	Sharpen	2.85	L	2 fl oz/a	14 EPP	A		0	6	3	59	0
8	MSO		L	1 % v/v	14 EPP	A						
9	Tiafenacil (DCC-3825)	2.83	L	0.5 fl oz/a	PRE	B		0	1	0	84	0
9	MSO		L	1 % v/v	PRE	B						
10	Tiafenacil (DCC-3825)	2.83	L	1 fl oz/a	PRE	B		0	1	0	83	0
10	MSO		L	1 % v/v	PRE	B						
11	Tiafenacil (DCC-3825)	2.83	L	2 fl oz/a	PRE	B		0	1	1	90	0
11	MSO		L	1 % v/v	PRE	B						
12	Tiafenacil (DCC-3825)	2.83	L	3 fl oz/a	PRE	B		5	1	0	96	0
12	MSO		L	1 % v/v	PRE	B						
13	Tiafenacil (DCC-3825)	2.83	L	4 fl oz/a	PRE	B		10	6	10	93	3
13	MSO		L	1 % v/v	PRE	B						
14	Sharpen	2.85	L	1 fl oz/a	PRE	B		29	26	28	86	16
14	MSO		L	1 % v/v	PRE	B						
15	Sharpen	2.85	L	2 fl oz/a	PRE	B		71	61	60	94	60
15	MSO		L	1 % v/v	PRE	B						
LSD P=.05								12.8	15.0	17.0	19.0	8.6
Standard Deviation								9.0	10.5	11.9	13.3	6.0
CV								116.79	151.77	176.98	22.66	114.68