

Black and navy bean sensitivity to dicamba and 2,4-D

Trial ID: DB02-18 Study Dir.: Bales, Sprague
 Conducted: SVREC Investigator: Christy Sprague

Planting Date: Jun-19-2018 **Row Spacing:** 30 IN
Variety: 'Zenith' black & 'Merlin' navy **No. of Reps:** 4
Population: 109000 seeds/A **% OM:** 2.5
Soil Type: SCL sandy clay loam **pH:** 7.7
Plot Size: 10 X 35 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall primary tillage followed by spring soil finish

Fertilizer:

Crop and Weed Description

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

Application Description

	A	B
Application Timing:	V2 POST	V5 POST
Date Treated:	Jul-11-2018	Jul-18-2018
Time Treated:	12:30 PM	10:30 AM
% Cloud Cover:	5	20
Air Temp., Unit:	78 F	75 F
% Relative Humidity:	46	63
Wind Speed/Unit/Dir:	7 mph N	3 mph W
Soil Temp, Unit:	78 F	72 F
Leaf Moist/Dew Presence (Y/N):	5	4
Soil Moist:	4	4

Crop Stage at Each Application

	A	B
Crop 1 Name:	PHSVX	PHSVX
Height:	5 "	12 "
Stage:	V2	V8

Weed Stage at Each Application

	A	B
Weed 1 Name:		
Height:		
Stage:		

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	24 "	20 "	100 "	19 GPA	WATER	30 PSI
B	CUB	3.8 mph	AIXR	11003	27 "	20 "	100 "	19 GPA	WATER	30 PSI

Comments:

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Trial ID: DB02-18 **Location: SVREC** **Trial Year: 2018**
Protocol ID: DB04-18 **Investigator: Christy Sprague**
Study Director: Bales, Sprague

Pest Code	PHSVX	PHSVX	PHSVX	PHSVX	PHSVX	PHSVX
Crop Code						
Rating Date						
Rating Type	injury	injury	injury	injury	moisture	yield
Rating Unit	percent	percent	percent	percent	percent	cwt/acre
Trt-Eval Interval	7 DAT	14 DAT	21 DAT	28 DAT		at 18% M
Number of Decimals	0	0	0	0	1	1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code						
1	'Merlin' navy bean							0	0	0	0	17.9	32.3
1	Untreated												
2	'Zenith' black bean							0	0	0	0	15.7	34.7
2	Untreated												
3	'Merlin' navy bean							2	3	2	0	18.8	32.2
3	XtendiMax (.1%)	2.9 L		0.044 fl oz/a		POST-V2 A							
4	'Zenith' black bean							1	2	1	0	16.0	34.0
4	XtendiMax (.1%)	2.9 L		0.044 fl oz/a		POST-V2 A							
5	'Merlin' navy bean							22	25	16	4	19.0	30.8
5	XtendiMax (1%)	2.9 L		0.44 fl oz/a		POST-V2 A							
6	'Zenith' black bean							23	24	17	3	16.6	34.2
6	XtendiMax (1%)	2.9 L		0.44 fl oz/a		POST-V2 A							
7	'Merlin' navy bean							44	46	48	27	21.8	20.0
7	XtendiMax (10%)	2.9 L		2.2 fl oz/a		POST-V2 A							
8	'Zenith' black bean							42	43	48	27	20.1	25.2
8	XtendiMax (10%)	2.9 L		2.2 fl oz/a		POST-V2 A							
9	'Merlin' navy bean							1	0	1	0	17.8	34.9
9	2,4-D choline (GF-3335) (.1%)	4 L		0.032 fl oz/a		POST-V2 A							
10	'Zenith' black bean							0	0	0	0	16.7	39.0
10	2,4-D choline (GF-3335) (.1%)	4 L		0.032 fl oz/a		POST-V2 A							
11	'Merlin' navy bean							6	3	2	0	18.3	33.0
11	2,4-D choline (GF-3335) (1%)	4 L		0.32 fl oz/a		POST-V2 A							
12	'Zenith' black bean							4	3	1	0	15.6	36.4
12	2,4-D choline (GF-3335) (1%)	4 L		0.32 fl oz/a		POST-V2 A							
13	'Merlin' navy bean							33	28	6	0	18.1	35.0
13	2,4-D choline (GF-3335) (10%)	4 L		3.2 fl oz/a		POST-V2 A							
14	'Zenith' black bean							33	31	5	1	17.3	37.1
14	2,4-D choline (GF-3335) (10%)	4 L		3.2 fl oz/a		POST-V2 A							
15	'Merlin' navy bean							0	0	0	0	18.0	33.8
15	Untreated												
16	'Zenith' black bean							0	0	0	0	16.9	37.0
16	Untreated												
17	'Merlin' navy bean							6	14	7	7	19.5	34.1
17	XtendiMax (.1%)	2.9 L		0.044 fl oz/a		POST-V5 B							

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Pest Code	PHSVX PHSVX PHSVX PHSVX PHSVX PHSVX												
Crop Code													
Rating Date													
Rating Type	injury injury injury injury moisture yield												
Rating Unit	percent percent percent percent percent cwt/acre												
Trt-Eval Interval	7 DAT 14 DAT 21 DAT 28 DAT at 18% M												
Number of Decimals	0 0 0 0 1 1												
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Unit	Growth Stage	Appl Code						
18	'Zenith' black bean	2.9	L	0.044	fl oz/a	POST-V5 B		6	15	7	4	16.4	35.6
18	XtendiMax (.1%)												
19	'Merlin' navy bean	2.9	L	0.44	fl oz/a	POST-V5 B		16	20	14	12	18.7	28.9
19	XtendiMax (1%)												
20	'Zenith' black bean	2.9	L	0.44	fl oz/a	POST-V5 B		19	25	14	12	17.5	30.9
20	XtendiMax (1%)												
21	'Merlin' navy bean	2.9	L	2.2	fl oz/a	POST-V5 B		38	44	53	58	23.0	14.5
21	XtendiMax (10%)												
22	'Zenith' black bean	2.9	L	2.2	fl oz/a	POST-V5 B		42	32	52	57	21.4	18.2
22	XtendiMax (10%)												
23	'Merlin' navy bean	4	L	0.032	fl oz/a	POST-V5 B		1	0	0	1	17.9	35.0
23	2,4-D choline (GF-3335) (.1%)												
24	'Zenith' black bean	4	L	0.032	fl oz/a	POST-V5 B		0	0	0	0	16.2	36.3
24	2,4-D choline (GF-3335) (.1%)												
25	'Merlin' navy bean	4	L	0.32	fl oz/a	POST-V5 B		3	1	0	1	18.2	36.9
25	2,4-D choline (GF-3335) (1%)												
26	'Zenith' black bean	4	L	0.32	fl oz/a	POST-V5 B		2	1	0	0	18.4	36.3
26	2,4-D choline (GF-3335) (1%)												
27	'Merlin' navy bean	4	L	3.2	fl oz/a	POST-V5 B		41	29	6	4	18.5	29.1
27	2,4-D choline (GF-3335) (10%)												
28	'Zenith' black bean	4	L	3.2	fl oz/a	POST-V5 B		42	28	4	4	17.6	32.6
28	2,4-D choline (GF-3335) (10%)												
LSD	P=.05							2.5	7.3	3.1	2.1	1.88	3.86
Standard Deviation								1.8	5.2	2.2	1.5	1.33	2.75
CV								11.85	34.99	20.61	19.05	7.35	8.56