

Timing of glyphosate and other preharvest treatments on two classes of dry beans

Trial ID: DB03-18 Study Dir.: Powell, Stiles, 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 S/A **% OM:** 2.5
Soil Type: SCL sandy clay loam **pH:** 7.7
Plot Size: 10 X 30 FT **Study Design:** Randomized Complete Block (RCB)

Tillage/Previous Crops: Fall primary tillage followed by spring soil finish
Fertilizer: Urea at 130 lb/A (60lb N/A) was broadcast and incorporated prior to planting.

Crop and Weed Description

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

Application Description

	A	B	C	D	E
Application Timing:	30% Yellow	60% Yellow	70% Yellow	80% Yellow	>95% Yellow
Date Treated:	Sep-7-2018	Sep-11-2018	Sep-13-2018	Sep-17-2018	Sep-27-2018
Time Treated:	2:00 PM	1:00 PM	12:00 PM	4:00 PM	12:00 PM
% Cloud Cover:	100	0	100	30	35
Air Temp., Unit:	66 F	78 F	72 F	85 F	62 F
% Relative Humidity:	53	64	73	41	65
Wind Speed/Unit/Dir:	6 mph N	0 mph	2 mph E	2 mph N	8 mph S
Soil Temp, Unit:	70 F	69 F	70 F	85 F	70 F
Leaf Moist/Dew Presence (Y/N):					
Soil Moist:	2	4	5	5	5

Crop Stage at Each Application

	A	B	C	D	E
Crop 1 Name:	PHSVX	PHSVX	PHSVX	PHSVX	PHSVX
Height:	36 "	36 "	36 "	36 "	36 "
Stage:	30% Ypod	60% Ypod	70% Ypod	80% Ypod	>95% Ypo

Weed Stage at Each Application

	A	B	C	D	E
Weed 1 Name:					
Height:					
Stage:					

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	50 "	20 "	100 "	19 GPA	WATER	30 psi
B	CUB	3.8 mph	AIXR	11003	50 "	20 "	100 "	19 GPA	WATER	30 psi
C	CUB	3.8 mph	AIXR	11003	50 "	20 "	100 "	19 GPA	WATER	30 psi
D	CUB	3.8 mph	AIXR	11003	50 "	20 "	100 "	19 GPA	WATER	30 psi
E	CUB	3.8 mph	AIXR	11003	50 "	20 "	100 "	19 GPA	WATER	30 psi

Comments:

Application timings were based on the % of yellow pods. A majority of these treatments were to determine the glyphosate levels were at the different application timings ranging from vary green to no yellow pods. Additional treatments were used to compare dry bean desiccation.

Timing of glyphosate and other preharvest treatments on two classes of dry beans

Trial ID: DB03-18

Location: SVREC

Investigator: Christy Sprague

Study Director: Powell, Stiles, Sprague

Pest Code	PHSVX	PHSVX	PHSVX	PHSVX	PHSVX
Crop Code	Sep-17-2018	Sep-21-2018	Sep-21-2018	Sep-27-2018	Sep-27-2018
Rating Date	desiccation	leaf desicc	stem desicc	leaf desicc	stem desicc
Rating Type	percent	percent	percent	percent	percent
Rating Unit	4 DA-C	8 DA-C	8 DA-C	14 DA-C	14 DA-C
Trt-Eval Interval	0	0	0	0	0
Number of Decimals					

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code					
1	'Zenith' black bean					30%	A	100	100	100	100	100
1	Roundup PowerMax	4.5	SL	22	fl oz/a	30%	A					
1	AMS		WG	17	lb/100 gal	30%	A					
2	'Zenith' black bean					60%	B	98	100	99	100	100
2	Roundup PowerMax	4.5	SL	22	fl oz/a	60%	B					
2	AMS		WG	17	lb/100 gal	60%	B					
3	'Zenith' black bean					70%	C	95	100	100	100	100
3	Roundup PowerMax	4.5	SL	22	fl oz/a	70%	C					
3	AMS		WG	17	lb/100 gal	70%	C					
4	'Zenith' black bean					80%	D	79	99	98	100	100
4	Roundup PowerMax	4.5	SL	22	fl oz/a	80%	D					
4	AMS		WG	17	lb/100 gal	80%	D					
5	'Zenith' black bean					>95%	E	73	86	83	100	94
5	Roundup PowerMax	4.5	SL	22	fl oz/a	>95%	E					
5	AMS		WG	17	lb/100 gal	>95%	E					
6	'Zenith' black bean							75	78	81	95	92
6	Untreated											
7	'Zenith' black bean					70%	C	99	100	99	100	100
7	Gramoxone SL	2	L	2	pt/a	70%	C					
7	Surfactant		L	0.25	% v/v	70%	C					
8	'Zenith' black bean					70%	C	100	100	100	100	100
8	Sharpen	2.85	L	1	fl oz/a	70%	C					
8	MSO		L	1	% v/v	70%	C					
8	AMS		WG	17	lb/100 gal	70%	C					
9	'Zenith' black bean					70%	C	100	100	100	100	100
9	Sharpen	2.85	L	2	fl oz/a	70%	C					
9	MSO		L	1	% v/v	70%	C					
9	AMS		WG	17	lb/100 gal	70%	C					
10	'Zenith' black bean					70%	C	99	100	98	100	100
10	Sharpen	2.85	L	1	fl oz/a	70%	C					
10	Gramoxone SL	2	L	2	pt/a	70%	C					
10	MSO		L	1	% v/v	70%	C					
10	AMS		WG	17	lb/100 gal	70%	C					
11	'Merlin' navy bean					30%	A	100	100	100	100	100
11	Roundup PowerMax	4.5	SL	22	fl oz/a	30%	A					
11	AMS		WG	17	lb/100 gal	30%	A					
12	'Merlin' navy bean					60%	B	94	100	94	100	100
12	Roundup PowerMax	4.5	SL	22	fl oz/a	60%	B					
12	AMS		WG	17	lb/100 gal	60%	B					

Timing of glyphosate and other preharvest treatments on two classes of dry beans

Trial ID: DB03-18

Location: SVREC

Investigator: Christy Sprague

Study Director: Powell, Stiles, Sprague

Pest Code										
Crop Code										
Rating Date										
Rating Type										
Rating Unit										
Trt-Eval Interval										
Number of Decimals										
						PHSVX	PHSVX	PHSVX	PHSVX	PHSVX
						Sep-17-2018	Sep-21-2018	Sep-21-2018	Sep-27-2018	Sep-27-2018
						desiccation	leaf desicc	stem desicc	leaf desicc	stem desicc
						percent	percent	percent	percent	percent
						4 DA-C	8 DA-C	8 DA-C	14 DA-C	14 DA-C
						0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Growth Stage	Appl Code					
13	'Merlin' navy bean					70%	C	87	100	84	100	100
13	Roundup PowerMax	4.5	SL	22	fl oz/a	70%	C					
13	AMS		WG	17	lb/100 gal	70%	C					
14	'Merlin' navy bean					80%	D	73	97	69	100	97
14	Roundup PowerMax	4.5	SL	22	fl oz/a	80%	D					
14	AMS		WG	17	lb/100 gal	80%	D					
15	'Merlin' navy bean					>95%	E	70	84	61	94	70
15	Roundup PowerMax	4.5	SL	22	fl oz/a	>95%	E					
15	AMS		WG	17	lb/100 gal	>95%	E					
16	'Merlin' navy bean							68	80	58	89	73
16	Untreated											
17	'Merlin' navy bean					70%	C	95	99	84	100	95
17	Gramoxone SL	2	L	2	pt/a	70%	C					
17	Surfactant		L	0.25	% v/v	70%	C					
18	'Merlin' navy bean					70%	C	100	100	96	100	99
18	Sharpen	2.85	L	1	fl oz/a	70%	C					
18	MSO		L	1	% v/v	70%	C					
18	AMS		WG	17	lb/100 gal	70%	C					
19	'Merlin' navy bean					70%	C	99	100	98	100	100
19	Sharpen	2.85	L	2	fl oz/a	70%	C					
19	MSO		L	1	% v/v	70%	C					
19	AMS		WG	17	lb/100 gal	70%	C					
20	'Merlin' navy bean					70%	C	98	100	91	100	97
20	Sharpen	2.85	L	1	fl oz/a	70%	C					
20	Gramoxone SL	2	L	2	pt/a	70%	C					
20	MSO		L	1	% v/v	70%	C					
20	AMS		WG	17	lb/100 gal	70%	C					
LSD P=.05								8.3	8.0	7.3	6.0	4.4
Standard Deviation								5.9	5.6	5.1	4.2	3.1
CV								6.54	5.85	5.74	4.29	3.24