

MSU Weed Science Research Program

Permit/Sandea (Halosulfuron) Dry Bean Class Screen

Trial ID: DB01-06-ncwws
Conducted: Bean and BeetStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Date Planted:	6/6/2006	Row Spacing:	30	IN
Variety:	See Comments	No. of Reps:	4	
Population:	See Comments	% OM:	2.9	
Soil Type:	Clay	pH:	8.0	
Plot Size:	10 X 30 FT	Design:	SPLIT-PLOT	

Tillage: Fall Chisel Plow, Spring Field Cultivate**Fertilizer:** None at planting

Crop	Code	Common Name
1.	PHSVX	BEAN, DRY

Application Description

	A	B
Application Timing:	Pre	Post
Date Treated:	6/6/2006	6/30/2006
Time Treated:	5:30 pm	11:00 am
% Cloud Cover:	90	90
Air Temp., Unit:	80 F	77 F
% Relative Humidity:	30	44
Wind Speed/Unit/Dir:	6 mph SW	5 mph SW
Soil Temp., Unit:	72 F	70 F
Soil/Leaf Surface M:	5 -	5 5
Soil Moist (1=w 5=d):	5	5

Crop Stage at Each Application

	A	B
Crop Name:	PHSVX	PHSVX
Height (In.):	-	2nd trifo
Stage (L):	-	5-6"

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
A	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	20"	20"	120"	19	water	27
B	Cub	3.8	AirMix	11003	24"	20"	120"	19	water	27

Comments: Navy and Black bean planted at 6.1 seeds per foot.
Small Red, Pinto and Great Northern planted at 5.1 seeds per foot.
Kidney Bean planted a 4.8 seeds per foot.
Adzuki bean planted at 90,000 seeds/acre.

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	PHSVX injury percent 6/23/2006 17 DA-A	PHSVX injury percent 6/30/2006 24 DA-A	PHSVX injury percent 7/6/2006 30 DA-A	PHSVX injury percent 7/13/2006 37 DA-A	PHSVX injury percent 7/25/2006 49 DA-A	PHSVX injury percent 8/11/2006 66 DA-A	PHSVX maturity percent 8/11/2006 66 DA-A
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Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code						
20	Permit	75	0.67	oz/a	post	B		33	10	9	6	7
20	Activator 90 NIS		0.25	% v/v	post	B						
20	Chinook 2000 Kidney											
21	Permit	75	0.67	oz/a	post	B		14	13	0	0	7
21	Activator 90 NIS		0.25	% v/v	post	B						
21	Matterhorn Great Northern											
22	Reflex	2	1	pt/a	post	B		0	0	0	0	5
22	Activator 90 NIS		0.25	% v/v	post	B						
22	Vista Navy											
23	Reflex	2	1	pt/a	post	B		1	0	0	0	6
23	Activator 90 NIS		0.25	% v/v	post	B						
23	Jaguar Black											
24	Reflex	2	1	pt/a	post	B		0	0	0	0	4
24	Activator 90 NIS		0.25	% v/v	post	B						
24	Merlot Small Red											
25	Reflex	2	1	pt/a	post	B		0	0	0	0	35
25	Activator 90 NIS		0.25	% v/v	post	B						
25	Othello Pinto											
26	Reflex	2	1	pt/a	post	B		0	0	0	0	3
26	Activator 90 NIS		0.25	% v/v	post	B						
26	Erimo Adzuki											
27	Reflex	2	1	pt/a	post	B		0	0	1	1	5
27	Activator 90 NIS		0.25	% v/v	post	B						
27	Chinook 2000 Kidney											
28	Reflex	2	1	pt/a	post	B		0	0	0	0	8
28	Activator 90 NIS		0.25	% v/v	post	B						
28	Matterhorn Great Northern											

LSD (P=.05)	2.9	2.8	4.1	1.9	2.1	2.2	4.6
Standard Deviation	2.0	1.9	2.9	1.3	1.5	1.6	3.2
CV	367.17	176.38	45.72	31.0	55.64	72.51	37.54

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Weed Code									
Crop Code									
Rating Data Type									
Rating Unit									
Rating Date									
Trt-Eval Interval									
		PHSVX	PHSVX	PHSVX	PHSVX	PHSVX	PHSVX	PHSVX	PHSVX
		maturity	maturity	maturity	maturity	moisture	Pinto	moisture	
		percent	percent	percent	percent	Pinto	cwt/acre		
		8/15/2006	8/23/2006	8/30/2006	9/7/2006	9/7/2006	9/7/2006	9/17/2006	
		70 DA-A	78 DA-A	85 DA-A	93 DA-A	93 DA-A	at 18% M		

Trt No.	Treatment Name	Form Conc	Rate	Grow Unit	Appl Stg	Code						
1	Permit Vista Navy	75	0.67 oz/a	pre	A	13	53	78				20.9
2	Permit Jaguar Black	75	0.67 oz/a	pre	A	13	45	80				20.6
3	Permit Merlot Small Red	75	0.67 oz/a	pre	A	7	48	73	91			22.8
4	Permit Othello Pinto	75	0.67 oz/a	pre	A	56	78	88		13.3	17.1	
5	Permit Erimo Adzuki	75	0.67 oz/a	pre	A	2	8	26	78			
6	Permit Chinook 2000 Kidney	75	0.67 oz/a	pre	A	11	44	63	89			25.9
7	Permit Matterhorn Great Northern	75	0.67 oz/a	pre	A	28	65	88				16.9
8	No Treatment Vista Navy					21	53	79				20.7
9	No Treatment Jaguar Black					18	45	84				20.0
10	No Treatment Merlot Small Red					8	46	73	93			22.6
11	No Treatment Othello Pinto					58	76	86		13.3	18.1	
12	No Treatment Erimo Adzuki					2	11	25	79			
13	No Treatment Chinook 2000 Kidney					13	44	64	88			22.6
14	No Treatment Matterhorn Great Northern					34	70	89				17.1
15	Permit Activator 90 NIS Vista Navy	75	0.67 oz/a 0.25 % v/v	post	B	19	50	75				20.6
16	Permit Activator 90 NIS Jaguar Black	75	0.67 oz/a 0.25 % v/v	post	B	14	40	76				20.4
17	Permit Activator 90 NIS Merlot Small Red	75	0.67 oz/a 0.25 % v/v	post	B	5	39	68	90			22.6
18	Permit Activator 90 NIS Othello Pinto	75	0.67 oz/a 0.25 % v/v	post	B	45	73	85		13.5	18.6	
19	Permit Activator 90 NIS Erimo Adzuki	75	0.67 oz/a 0.25 % v/v	post	B	0	0	5	53			

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Weed Code													
Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	PHSVX maturity percent	PHSVX maturity percent	PHSVX maturity percent	PHSVX maturity percent	PHSVX moisture Pinto	PHSVX moisture Pinto	PHSVX moisture	PHSVX moisture	
					8/15/2006	8/23/2006	8/30/2006	9/7/2006	9/7/2006	9/7/2006	9/17/2006		
					70 DA-A	78 DA-A	85 DA-A	93 DA-A	93 DA-A	at 18% M			
Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code							
20	Permit	75	0.67	oz/a	post	B	11	43	55	88		22.3	
20	Activator 90 NIS		0.25	% v/v	post	B							
20	Chinook 2000 Kidney												
21	Permit	75	0.67	oz/a	post	B	20	56	85			17.2	
21	Activator 90 NIS		0.25	% v/v	post	B							
21	Matterhorn Great Northern												
22	Reflex	2	1	pt/a	post	B	16	53	81			21.5	
22	Activator 90 NIS		0.25	% v/v	post	B							
22	Vista Navy												
23	Reflex	2	1	pt/a	post	B	14	49	80			20.7	
23	Activator 90 NIS		0.25	% v/v	post	B							
23	Jaguar Black												
24	Reflex	2	1	pt/a	post	B	6	45	73	90		22.6	
24	Activator 90 NIS		0.25	% v/v	post	B							
24	Merlot Small Red												
25	Reflex	2	1	pt/a	post	B	63	80	90	13.5	18.5		
25	Activator 90 NIS		0.25	% v/v	post	B							
25	Othello Pinto												
26	Reflex	2	1	pt/a	post	B	2	13	29	79			
26	Activator 90 NIS		0.25	% v/v	post	B							
26	Erimo Adzuki												
27	Reflex	2	1	pt/a	post	B	14	43	61	88		23.0	
27	Activator 90 NIS		0.25	% v/v	post	B							
27	Chinook 2000 Kidney												
28	Reflex	2	1	pt/a	post	B	25	63	89			17.0	
28	Activator 90 NIS		0.25	% v/v	post	B							
28	Matterhorn Great Northern												
LSD (P=.05)							8.1	8.3	8.2	4.0	0.68	2.34	3.42
Standard Deviation							5.7	5.9	5.8	2.7	0.42	1.46	2.42
CV							29.89	12.37	8.31	3.28	3.16	8.08	11.58

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Weed Code			
Crop Code	PHSVX	ADZUKI	ADZUKI
Rating Data Type	yield	moisture	yield
Rating Unit	cwt/acre		cwt/acre
Rating Date	9/17/2006	9/17/2006	9/17/2006
Trt-Eval Interval	at 18% M		at 13% M

Trt No.	Treatment Name	Form Conc	Rate	Unit	Grow Stg	Appl Code			
20	Permit	75	0.67	oz/a	post	B	9.9		
20	Activator 90 NIS		0.25	% v/v	post	B			
20	Chinook 2000 Kidney								
21	Permit	75	0.67	oz/a	post	B	18.8		
21	Activator 90 NIS		0.25	% v/v	post	B			
21	Matterhorn Great Northern								
22	Reflex	2	1	pt/a	post	B	18.8		
22	Activator 90 NIS		0.25	% v/v	post	B			
22	Vista Navy								
23	Reflex	2	1	pt/a	post	B	15.9		
23	Activator 90 NIS		0.25	% v/v	post	B			
23	Jaguar Black								
24	Reflex	2	1	pt/a	post	B	18.2		
24	Activator 90 NIS		0.25	% v/v	post	B			
24	Merlot Small Red								
25	Reflex	2	1	pt/a	post	B			
25	Activator 90 NIS		0.25	% v/v	post	B			
25	Othello Pinto								
26	Reflex	2	1	pt/a	post	B		18.4	11.5
26	Activator 90 NIS		0.25	% v/v	post	B			
26	Erimo Adzuki								
27	Reflex	2	1	pt/a	post	B	10.4		
27	Activator 90 NIS		0.25	% v/v	post	B			
27	Chinook 2000 Kidney								
28	Reflex	2	1	pt/a	post	B	18.8		
28	Activator 90 NIS		0.25	% v/v	post	B			
28	Matterhorn Great Northern								
LSD (P=.05)							2.98	6.78	1.19
Standard Deviation							2.11	4.24	0.74
CV							12.93	15.04	7.45