

MSU Weed Science Research Program

Evaluation of Cadet for weed control and crop tolerance in dry beans

Trial ID: DB04-10 Study Dir.: Sprague, Powell
Conducted: T-14 North Investigator: Christy Sprague

Date Planted: 6/16/2010 Row Spacing: 30 IN
Variety: Zorro Black No. of Reps: 4
Population: 106,000 seeds/acre % OM: 3.3
Soil Type: Loam pH: 6.5
Plot Size: 10 X 30 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Spring chisel plow and spring soil finish

Crop and Weed Description

Table with 4 columns: Weed Code, Common Name, Scientific Name, Crop Code, Common Name. Lists weeds like AMBEL, CHEAL, ABUTH and crop PHSVX.

Application Description

A
Application Timing: POST
Date Treated: 7/8/2010
Time Treated: 11:10 am
% Cloud Cover: 80
Air Temp., Unit: 88 F
% Relative Humidity: 49
Wind Speed/Unit/Dir: 2 mph W
Soil Temp., Unit: 83 F
Soil/Leaf Surface M: 5 5
Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

A
Crop Name: PHSVX
Height (In.): 5-7"
Stage (L): V2-3

Weed Stage at Each Application

A
Weed 1 Name: AMBEL
Height (In.): 2"
Stage (L): 6-8
Weed 2 Name: CHEAL
Height (In.): 1-2"
Stage (L): 6-10
Weed 3 Name: ABUTH
Height (In.): 1-2"
Stage (L): 5-6

Weed Density (plants/sq. ft.)

Table with 3 columns: Weed Name, Density. Lists CHEAL, ABUTH, AMBEL with density <1.

Application Equipment

Table with 10 columns: Appl Type, Sprayer, Speed MPH, Nozzle Type, Nozzle Size, Nozzle Height, Nozzle Spacing, Nozzle Width, GPA, Carrier, PSI. Lists equipment for application A.

Comments: 6/16/10 - Dual II Magnum at 1.33 pt/A was applied preemergence to all treatments.

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Weed Code								ABUTH		CHEAL		AMBEL		PHSVX		PHSVX		ABUTH	
Crop Code								PHSVX		PHSVX		PHSVX		PHSVX		PHSVX		PHSVX	
Rating Data Type								injury		control		control		control		injury		injury	
Rating Unit								percent		percent		percent		percent		percent		percent	
Rating Date								7/11/2010		7/11/2010		7/11/2010		7/15/2010		7/22/2010		7/22/2010	
Trt-Eval Interval								3 DA-B		3 DA-B		3 DA-B		7 DA-B		14 DA-B		14 DA-B	
# Subsamples, Dec.								0		0		0		0		0		0	
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code												
1	Untreated							0	0	0	0	0	0	0	0	0	0	0	0
2	Cadet	0.91	L	0.5	fl oz/a	POST	A	31	99	61	63	15	14	98					
2	Activator 90		L	0.25	% v/v	POST	A												
3	Cadet	0.91	L	0.7	fl oz/a	POST	A	38	99	86	80	19	13	96					
3	Activator 90		L	0.25	% v/v	POST	A												
4	Cadet	0.91	L	0.9	fl oz/a	POST	A	39	99	79	75	25	23	95					
4	Activator 90		L	0.25	% v/v	POST	A												
5	Cadet	0.91	L	1.4	fl oz/a	POST	A	58	99	96	86	35	40	96					
5	Activator 90		L	0.25	% v/v	POST	A												
6	Cadet	0.91	L	0.5	fl oz/a	POST	A	39	99	74	74	19	13	98					
6	Herbimax (COC)		L	1	% v/v	POST	A												
7	Cadet	0.91	L	0.9	fl oz/a	POST	A	45	99	92	76	33	36	96					
7	Herbimax (COC)		L	1	% v/v	POST	A												
8	Reflex	2	L	1	pt/a	POST	A	9	90	73	99	6	1	98					
8	Activator 90		L	0.25	% v/v	POST	A												
9	Basagran	4	L	2	pt/a	POST	A	2	73	45	60	6	0	90					
9	Herbimax (COC)		L	1	% v/v	POST	A												
10	Raptor	1	L	4	fl oz/a	POST	A	0	75	41	49	5	3	98					
10	Basagran	4	L	1	pt/a	POST	A												
10	Herbimax (COC)		L	1	% v/v	POST	A												
10	AMS		WG	2.5	lb/a	POST	A												
11	Cadet	0.91	L	0.5	fl oz/a	POST	A	50	99	93	83	34	33	95					
11	Basagran	4	L	1	pt/a	POST	A												
11	Herbimax (COC)		L	1	% v/v	POST	A												
11	AMS		WG	2.5	lb/a	POST	A												
LSD (P=.05)								5.2	6.0	13.1	12.8	9.2	7.3	7.1					
Standard Deviation								3.6	4.2	9.1	8.9	6.4	5.1	4.9					
CV								12.91	4.93	13.51	13.11	35.79	31.91	5.62					

Means followed by same letter do not significantly differ (P=.05, LSD)

Mean comparisons performed only when AOV Treatment P(F) is significant at mean comparison OSL.

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Weed Code		CHEAL		AMBEL		PHSVX		ABUTH		CHEAL		AMBEL		PHSVX	
Crop Code		control		control		injury		control		control		control		moisture	
Rating Data Type		percent		percent		percent		percent		percent		percent		percent	
Rating Unit		7/22/2010		7/22/2010		8/5/2010		8/5/2010		8/5/2010		8/5/2010		9/29/2010	
Rating Date		14 DA-B		14 DA-B		28 DA-B		28 DA-B		28 DA-A		28 DA-B		83 DA-A	
Trt-Eval Interval		0		0		0		0		0		0		1	
# Subsamples, Dec.															
Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code								
1	Untreated							0	0	0	0	0	0	21.3	
2	Cadet	0.91	L	0.5	fl oz/a	POST	A	78	75	6	97	76	65	19.2	
2	Activator 90		L	0.25	% v/v	POST	A								
3	Cadet	0.91	L	0.7	fl oz/a	POST	A	86	80	11	93	84	68	19.8	
3	Activator 90		L	0.25	% v/v	POST	A								
4	Cadet	0.91	L	0.9	fl oz/a	POST	A	88	75	9	96	85	65	19.6	
4	Activator 90		L	0.25	% v/v	POST	A								
5	Cadet	0.91	L	1.4	fl oz/a	POST	A	96	80	21	98	95	75	20.8	
5	Activator 90		L	0.25	% v/v	POST	A								
6	Cadet	0.91	L	0.5	fl oz/a	POST	A	83	71	6	99	82	64	19.3	
6	Herbimax (COC)		L	1	% v/v	POST	A								
7	Cadet	0.91	L	0.9	fl oz/a	POST	A	94	73	14	98	94	63	19.9	
7	Herbimax (COC)		L	1	% v/v	POST	A								
8	Reflex	2	L	1	pt/a	POST	A	82	99	0	82	78	99	18.8	
8	Activator 90		L	0.25	% v/v	POST	A								
9	Basagran	4	L	2	pt/a	POST	A	71	58	0	86	66	60	20.1	
9	Herbimax (COC)		L	1	% v/v	POST	A								
10	Raptor	1	L	4	fl oz/a	POST	A	91	80	3	99	89	79	19.6	
10	Basagran	4	L	1	pt/a	POST	A								
10	Herbimax (COC)		L	1	% v/v	POST	A								
10	AMS		WG	2.5	lb/a	POST	A								
11	Cadet	0.91	L	0.5	fl oz/a	POST	A	88	77	15	86	86	66	20.2	
11	Basagran	4	L	1	pt/a	POST	A								
11	Herbimax (COC)		L	1	% v/v	POST	A								
11	AMS		WG	2.5	lb/a	POST	A								
LSD (P=.05)								6.7	10.6	5.3	9.8	7.7	11.2	0.97	
Standard Deviation								4.7	7.3	3.7	6.8	5.3	7.8	0.67	
CV								5.99	10.51	47.64	7.97	7.0	12.16	3.37	

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Investigator: Christy SpragueWeed Code
Crop Code PHSVX
Rating Data Type yield
Rating Unit cwt/acre
Rating Date 9/29/2010
Trt-Eval Interval at 18% M
Subsamples, Dec. 1

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code	yield
1	Untreated							21.2
2	Cadet	0.91	L	0.5	fl oz/a	POST	A	28.3
2	Activator 90		L	0.25	% v/v	POST	A	
3	Cadet	0.91	L	0.7	fl oz/a	POST	A	27.1
3	Activator 90		L	0.25	% v/v	POST	A	
4	Cadet	0.91	L	0.9	fl oz/a	POST	A	28.0
4	Activator 90		L	0.25	% v/v	POST	A	
5	Cadet	0.91	L	1.4	fl oz/a	POST	A	24.7
5	Activator 90		L	0.25	% v/v	POST	A	
6	Cadet	0.91	L	0.5	fl oz/a	POST	A	24.6
6	Herbimax (COC)		L	1	% v/v	POST	A	
7	Cadet	0.91	L	0.9	fl oz/a	POST	A	25.0
7	Herbimax (COC)		L	1	% v/v	POST	A	
8	Reflex	2	L	1	pt/a	POST	A	28.4
8	Activator 90		L	0.25	% v/v	POST	A	
9	Basagran	4	L	2	pt/a	POST	A	24.2
9	Herbimax (COC)		L	1	% v/v	POST	A	
10	Raptor	1	L	4	fl oz/a	POST	A	27.0
10	Basagran	4	L	1	pt/a	POST	A	
10	Herbimax (COC)		L	1	% v/v	POST	A	
10	AMS		WG	2.5	lb/a	POST	A	
11	Cadet	0.91	L	0.5	fl oz/a	POST	A	23.9
11	Basagran	4	L	1	pt/a	POST	A	
11	Herbimax (COC)		L	1	% v/v	POST	A	
11	AMS		WG	2.5	lb/a	POST	A	
LSD (P=.05)								4.04
Standard Deviation								2.78
CV								10.83

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