

MSU Weed Science Research Program

Weed Control in 'Jaguar' Black Beans with Permit

Trial ID: DB01-07
Conducted: B1-4 CampusStudy Dir.: Sprague, Powell
Investigator: Christy Sprague

Date Planted: 6/13/07	Row Spacing: 30 IN
Variety: Jaguar Black	No. of Reps: 4
Population: 6.1 seeds/foot	% OM: 1.5
Soil Type: Sandy Loam	pH: 6.2
Plot Size: 10 X 30 FT	Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall Chisel Plow, Spring Soil Finish x 2, Previous Crop Soybean
Fertilizer: 160# Of 19-19-19 With Planter

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	ABUTH	VELVETLEAF	ABUTILON THEOPHRASTI MEDIK.
2.	ANGR	mainly foxtail species	SETARIA SP.
Crop	Code	Common Name	
1.	PHSVX	BEAN, DRY	

Application Description

	A	B	C
Application Timing:	PPI	PRE	POST
Date Treated:	6/13/07	6/13/07	7/2/06
Time Treated:	9:30 am	2:00 pm	7:00 PM
% Cloud Cover:	10	10	90
Air Temp., Unit:	77 F	86 F	77 F
% Relative Humidity:	59	54	45
Wind Speed/Unit/Dir:	5 mph NE	6 mph N	0 mph
Soil Temp., Unit:	67 F	77 F	77 F
Soil/Leaf Surface M:	5 5	5 5	5 5
Soil Moist (1=w 5=d):	5	5	5

Crop Stage at Each Application

	A	B	C
Crop Name:	PHSVX	PHSVX	PHSVX
Height (In.):	-	-	3-5"
Stage (L):	-	-	1-2 V

Weed Stage at Each Application

	A	B	C
Weed 1 Name:	ABUTH	ABUTH	ABUTH
Height (In.):	-	-	0.25-2"
Stage (L):	-	-	coty-3
Weed 2 Name:	ANGR	ANGR	ANGR
Height (In.):	-	-	.125-0.75
Stage (L):	-	-	coty-2

Weed Density (plants/sq. ft.)

	1	2	3	4	5	6
Date:	7/10/07	7/10/07	7/10/07	7/10/07	7/10/07	7/10/07
Weed Name:	CHEAL	AMARE	ANGR	AMARE	AMBEL	SOLPT
Density:	2	< 1	55	< 1	< 1	< 1

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom			
	Type	MPH	Type	Size	Height	Spacing	Width	GPA	Carrier	PSI
A	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	27
B	Cub	3.8	AirMix	11003	24"	20"	100"	19	Water	27
C	Cub	3.8	AirMix	11003	22"	20"	100"	19	Water	27

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Weed Code	Crop Code	Rating Data Type	Rating Unit	Rating Date	Trt-Eval Interval	PHSVX injury percent	PHSVX injury percent	ANGR control percent	AMBEL control percent	ABUTH control percent	PHSVX injury percent	ANGR control percent	ABUTH control percent
						7/5/07	7/16/07	7/16/07	7/16/07	7/16/07	8/2/07	8/2/07	8/2/07
						22 DA-A	33 DA-A	33 DA-A	33 DA-A	33 DA-A	50 DA-A	50 DA-A	50 DA-A

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code								
1	Eptam	7	EC	2.5	pt/a	PPI	A	4	3	84	99	99	1	85	99
1	Permit	75	DF	0.66	oz/a	PPI	A								
2	Permit	75	DF	0.5	oz/a	PRE	B	18	6	88	99	91	13	91	74
2	Dual Magnum	7.62	EC	1	pt/a	PRE	B								
3	Permit	75	DF	0.66	oz/a	PRE	B	16	5	90	99	98	4	90	94
3	Dual Magnum	7.62	EC	1	pt/a	PRE	B								
4	Permit	75	DF	0.66	oz/a	PRE	B	23	10	90	99	95	11	90	90
4	Outlook	6	L	12	oz/a	PRE	B								
5	Dual Magnum	7.62	EC	1	pt/a	PRE	B	13	1	87	99	99	1	91	99
5	Permit	75	DF	0.5	oz/a	POST	C								
5	Activator 90 (NIS)		L	0.25	% v/v	POST	C								
6	Untreated							0	0	0	0	0	0	0	0
7	Dual Magnum	7.62	EC	1	pt/a	PRE	B	12	0	87	99	95	1	88	93
7	Permit	75	DF	0.5	oz/a	POST	C								
7	Basagran	2	L	1	pt/a	POST	C								
7	Activator 90 (NIS)		L	0.25	% v/v	POST	C								
8	Dual Magnum	7.62	EC	1	pt/a	PRE	B	17	4	95	99	93	5	96	71
8	Reflex	2	L	1	pt/a	POST	C								
8	Crop oil concentrate		L	1	% v/v	POST	C								
9	Dual Magnum	7.62	EC	1	pt/a	PRE	B	23	4	92	99	94	4	96	87
9	Reflex	2	L	1	pt/a	POST	C								
9	Basagran	2	L	1	pt/a	POST	C								
9	Crop oil concentrate		L	1	% v/v	POST	C								
10	Raptor	1	L	4	fl oz/a	POST	C	10	0	85	99	99	3	87	99
10	Basagran	2	L	1	pt/a	POST	C								
10	Crop oil concentrate		L	1	% v/v	POST	C								
10	AMS		WG	2.5	lb/a	POST	C								

LSD (P=.05)	6.9	3.0	4.6	0.0	6.2	4.8	6.6	25.0
Standard Deviation	4.8	2.1	3.2	0.0	4.3	3.3	4.5	17.3
CV	35.75	64.19	4.01	0.0	4.95	78.43	5.59	21.43

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Weed Code
 Crop Code PHSVX PHSVX
 Rating Data Type moisture yield
 Rating Unit percent cwt/acre
 Rating Date 10/12/07 10/12/07
 Trt-Eval Interval 121 DA-A at 18% M

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code		
1	Eptam	7	EC	2.5	pt/a	PPI	A	18.2	18.1
1	Permit	75	DF	0.66	oz/a	PPI	A		
2	Permit	75	DF	0.5	oz/a	PRE	B	19.4	20.5
2	Dual Magnum	7.62	EC	1	pt/a	PRE	B		
3	Permit	75	DF	0.66	oz/a	PRE	B	19.3	20.8
3	Dual Magnum	7.62	EC	1	pt/a	PRE	B		
4	Permit	75	DF	0.66	oz/a	PRE	B	18.4	20.2
4	Outlook	6	L	12	oz/a	PRE	B		
5	Dual Magnum	7.62	EC	1	pt/a	PRE	B	20.2	14.8
5	Permit	75	DF	0.5	oz/a	POST	C		
5	Activator 90 (NIS)		L	0.25	% v/v	POST	C		
6	Untreated							19.3	4.6
7	Dual Magnum	7.62	EC	1	pt/a	PRE	B	18.5	17.0
7	Permit	75	DF	0.5	oz/a	POST	C		
7	Basagran	2	L	1	pt/a	POST	C		
7	Activator 90 (NIS)		L	0.25	% v/v	POST	C		
8	Dual Magnum	7.62	EC	1	pt/a	PRE	B	18.9	17.8
8	Reflex	2	L	1	pt/a	POST	C		
8	Crop oil concentrate		L	1	% v/v	POST	C		
9	Dual Magnum	7.62	EC	1	pt/a	PRE	B	19.4	20.0
9	Reflex	2	L	1	pt/a	POST	C		
9	Basagran	2	L	1	pt/a	POST	C		
9	Crop oil concentrate		L	1	% v/v	POST	C		
10	Raptor	1	L	4	fl oz/a	POST	C	18.2	16.3
10	Basagran	2	L	1	pt/a	POST	C		
10	Crop oil concentrate		L	1	% v/v	POST	C		
10	AMS		WG	2.5	lb/a	POST	C		
LSD (P=.05)								1.87	2.97
Standard Deviation								1.29	2.03
CV								6.79	11.92