

MSU Weed Science Research Program

Evaluation of Basagran rates for weed control with NAI-1333

Trial ID: DB05-13 Study Dir.: Sprague, Powell
Conducted: Campus B-10 Investigator: Christy Sprague

Date Planted: Jun/20/2013 Row Spacing: 30 IN
Variety: 'Zorro' black bean No. of Reps: 4
Population: 106,000 seeds/A % OM: 3.2
Soil Type: Loam pH: 7.2
Plot Size: 10 X 35 FT Design: RANDOMIZED COMPLETE BLOCK

Tillage: Fall chisel plow, spring soil finish x2
Fertilizer: 125 lb 19-19-19 banded with planter

Crop and Weed Description

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

Application Description

Application Timing: POST
Date Treated: Jul/08/2013
Time Treated: 8:20 AM
% Cloud Cover: 85
Air Temp., Unit: 73 F
% Relative Humidity: 83
Wind Speed/Unit/Dir: 2 mph S
Soil Temp., Unit: 73 F
Soil/Leaf Surface M: 5 5
Soil Moist (1=w 5=d): 4

Crop Stage at Each Application

Crop Name: PHSVX
Height (In.): 7"
Stage (L): V2

Weed Stage at Each Application

Weed 1 Name: CHEAL
Height (In.): 2"
Stage (L): 6
Weed 2 Name: AMAPO
Height (In.): 3"
Stage (L): 6
Weed 3 Name: AMBEL
Height (In.): 1.5"
Stage (L): 4
Weed 4 Name: ABUTH
Height (In.): 2"
Stage (L): 4

Weed Density (plants/sq. ft.)

Table with 5 columns: Date, Weed Name, Density. Shows data for CHEAL, AMAPO, AMBEL, ABUTH on Jul/11/2013.

Application Equipment

Table with 7 columns: Appl Type, Sprayer MPH, Nozzle Type, Nozzle Size, Nozzle Height, Nozzle Spacing, Boom Width, GPA, Carrier, PSI. Lists equipment for application A.

Comments: 7/6/13: A blanket treatment of selectMax at 9 fl oz/A + COC at 1% v/v was applied for grass control. Applications of NAI-1333 delayed maturity of black beans.

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Evaluation of Basagran rates for weed control with NAI-1333

Trial ID: DB05-13
 Conducted: Campus B-10

Study Dir.: Sprague, Powell
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Weed Code	CHEAL	AMAPO	AMBEL	ABUTH
Crop Code	PHSVX			
Rating Data Type	injury	control	control	control
Rating Unit	percent	percent	percent	percent
Rating Date	Jul/15/2013	Jul/15/2013	Jul/15/2013	Jul/15/2013
Trt-Eval Interval	7 DA-A	7 DA-A	7 DA-A	7 DA-A
# Subsamples, Dec.	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code					
1	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	31	99	98	97	98
	Basagran	4	L	32	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
2	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	30	99	98	98	97
	Basagran	4	L	28	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
3	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	30	99	99	96	99
	Basagran	4	L	24	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
4	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	30	98	98	99	97
	Basagran	4	L	20	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
5	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	35	99	97	99	99
	Basagran	4	L	16	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
6	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	40	99	98	99	99
	Basagran	4	L	32	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
7	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	36	99	99	98	99
	Basagran	4	L	28	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
8	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	40	99	99	98	99
	Basagran	4	L	24	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
9	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	38	99	99	99	99
	Basagran	4	L	20	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
10	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	36	99	99	97	98
	Basagran	4	L	16	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
11	Raptor	1	L	4	fl oz/a	POST	A	3	96	99	92	98
	Basagran	4	L	12	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
12	Untreated							0	0	0	0	0
13	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	30	97	99	96	98
	Bashazon	4	L	24	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
14	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	54	99	99	99	99
	Bashazon	4	L	24	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
LSD (P=.05)								5.5	2.5	2.3	4.5	2.6
CV								12.5	1.92	1.79	3.49	2.03

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

MSU Weed Science Research Program

Weed Code		CHEAL	AMAPO	AMBEL	ABUTH
Crop Code	PHSVX				
Rating Data Type	injury	control	control	control	control
Rating Unit	percent	percent	percent	percent	percent
Rating Date	Jul/22/2013	Jul/22/2013	Jul/22/2013	Jul/22/2013	Jul/22/2013
Trt-Eval Interval	14 DA-A	14 DA-A	14 DA-A	14 DA-A	14 DA-A
# Subsamples, Dec.	0	0	0	0	0

Trt No.	Treatment Name	Form Conc	Form Type	Rate	Rate Unit	Grow Stg	Appl Code					
1	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	23	99	95	94	98
	Basagran	4	L	32	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
2	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	21	98	95	95	97
	Basagran	4	L	28	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
3	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	23	99	96	92	99
	Basagran	4	L	24	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
4	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	26	96	92	92	97
	Basagran	4	L	20	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
5	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	24	96	95	93	95
	Basagran	4	L	16	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
6	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	30	98	98	97	99
	Basagran	4	L	32	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
7	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	34	99	97	93	96
	Basagran	4	L	28	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
8	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	38	98	97	95	98
	Basagran	4	L	24	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
9	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	38	99	99	94	99
	Basagran	4	L	20	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
10	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	28	98	99	92	94
	Basagran	4	L	16	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
11	Raptor	1	L	4	fl oz/a	POST	A	0	98	99	95	99
	Basagran	4	L	12	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
12	Untreated							0	0	0	0	0
13	NAI-1333 2.5% EC	0.2	EC	1	fl oz/a	POST	A	26	93	97	91	96
	Bashazon	4	L	24	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					
14	NAI-1333 2.5% EC	0.2	EC	2	fl oz/a	POST	A	43	98	97	98	98
	Bashazon	4	L	24	fl oz/a	POST	A					
	Surfactant		L	0.25	% v/v	POST	A					

LSD (P=.05)	6.5	4.5	5.1	8.7	4.7
CV	18.25	3.44	3.98	6.95	3.68

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

MSU Weed Science Research Program

Weed Code
 Crop Code
 Rating Data Type PHSVX
 Rating Unit yield
 Rating Date cwt/acre
 Trt-Eval Interval Nov/13/2013
 # Subsamples, Dec. at 18% M
 1

Trt No.	Treatment Name	Form Conc	Form Type	Rate Rate	Rate Unit	Grow Stg	Appl Code	
1	NAI-1333 2.5%	EC 0.2	EC	1	fl oz/a	POST	A	17.7
	Basagran	4	L	32	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
2	NAI-1333 2.5%	EC 0.2	EC	1	fl oz/a	POST	A	21.8
	Basagran	4	L	28	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
3	NAI-1333 2.5%	EC 0.2	EC	1	fl oz/a	POST	A	20.8
	Basagran	4	L	24	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
4	NAI-1333 2.5%	EC 0.2	EC	1	fl oz/a	POST	A	21.5
	Basagran	4	L	20	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
5	NAI-1333 2.5%	EC 0.2	EC	1	fl oz/a	POST	A	19.4
	Basagran	4	L	16	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
6	NAI-1333 2.5%	EC 0.2	EC	2	fl oz/a	POST	A	17.8
	Basagran	4	L	32	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
7	NAI-1333 2.5%	EC 0.2	EC	2	fl oz/a	POST	A	17.6
	Basagran	4	L	28	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
8	NAI-1333 2.5%	EC 0.2	EC	2	fl oz/a	POST	A	20.8
	Basagran	4	L	24	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
9	NAI-1333 2.5%	EC 0.2	EC	2	fl oz/a	POST	A	18.9
	Basagran	4	L	20	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
10	NAI-1333 2.5%	EC 0.2	EC	2	fl oz/a	POST	A	18.5
	Basagran	4	L	16	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
11	Raptor	1	L	4	fl oz/a	POST	A	16.5
	Basagran	4	L	12	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
12	Untreated							14.9
13	NAI-1333 2.5%	EC 0.2	EC	1	fl oz/a	POST	A	22.4
	Bashazon	4	L	24	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
14	NAI-1333 2.5%	EC 0.2	EC	2	fl oz/a	POST	A	15.5
	Bashazon	4	L	24	fl oz/a	POST	A	
	Surfactant		L	0.25	% v/v	POST	A	
LSD (P=.05)								3.87
CV								14.36

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