SNAP BEAN HERBICIDE EVALUATION - ARLINGTON - 2012

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Location: Arlington Ag Research Station - Horticulture Farm Field 617

Plot Information:

Soil Type: Plano Silt Loam; pH 6.8; OM 3.6%.
Variety: 'Hercules' - Seminis
Date Planted: 6/1/12
Row Spacing: 30 Inches
Plant Spacing: 1.5 inches
Date Harvested: 8/3/12
Plot Size-Design: 10' x 20', 4 Reps
Rating Dates: 6/13, 6/19, 6/26, 7/9

Application Equipment: Tractor mounted air pressure sprayer.GPA 20, PSI 27, MPH 3.3, Nozzle - XR8003VS, Nozzle spacing 18", Height 18".

Incorporation Equipment: N/A

Herbicide Application Data:

PRE = Preemergence EPOST = Early Post

Date	6/4/12	6/26/12	
Time	9:30 am	6:00 am	
Treatment	PRE	EPOST	
Soil Moisture			
SF	dry	dry	
1"	dry	dry	
3"	moist	moist	
Soil Temp (F°)			
SF	95.8	70.6	
3"	70.7	68.8	
Air Temp (F°)	78.2	65.5	
Wind	0.5 N	1.2 E	
%RH	48.1%	55.6%	
Sky Condition	0% clouds	10% clouds	
Crop Stage	-----	1-2 trifoliate	
Weed & Size	-----	1-2" VELE	
	-----	1-2" COLQ	
	-----	1-3" RRPW	
	-----	1-2: YEFT	

Comments: The 2012 season at Arlington, WI was extremely hot and dry. Lack of rainfall coupled with limited irrigation capacity resulted in poor activation of pre applied herbicides. The excessive heat also reduced set and created a split set after conditions improved in late July.

Fertilization and other pesticides: Fall 2011 - dairy replacement pack manure, 160 lb N/A.

Irrigation: 7/6 - 0.75"

Weed Abbreviations:	Plot Weed Density:
COLQ = Common Lambsquarters	moderate
RRPW = Redroot Pigweed	high
VELE = Velvetleaf	moderate

Weed Abbreviations:	Plot Weed Density:
YEFT = Yellow Foxtail	moderate

Snap Bean Herbicide Efficacy - Arlington, WI - 2012

Trt No.	Treatment Name	Rate	Rate Unit	Grow Stg	% Injury 6/13/12	% Injury 6/19/12	% Injury 6/26/12	% Weed Control 6/26/12			
								COLQ	RRPW	VELE	YEFT
1	HANDWEEDED CHECK				0 c	0 a	0 a	100 a	100 a	100 a	100 a
2	UNTREATED CHECK				2.5 bc	0 a	0 a	5 h	5 f	7.5 d	25 b
3	OUTLOOK	16	OZ/A	PRE	0 c	0 a	0 a	73.8 bcd	57.5 b-e	62.5 abc	73.8 a
	RAPTOR	4	OZ/A	EPOST							
	BASAGRAN	1	PT/A	EPOST							
	NIS	0.3	% V/V	EPOST							
4	REFLEX	1	PT/A	PRE	0 c	0 a	0 a	61.3 b-f	37.5 def	68.8 abc	74.5 a
	DUAL MAGNUM	1	PT/A	PRE							
5	DUAL MAGNUM	1	PT/A	PRE	0 c	0 a	0 a	55 def	52.5 cde	58.8 c	93.3 a
	RAPTOR	4	OZ/A	EPOST							
	BASAGRAN	8	OZ/A	EPOST							
	NIS	0.3	% V/V	EPOST							
6	DUAL MAGNUM	1	PT/A	PRE	3.75 ab	0 a	0 a	58.8 c-f	52.5 cde	65 abc	79.5 a
	SANDEA	0.8	OZ/A	PRE							
7	DEFINE	9.6	OZ/A	PRE	0 c	0 a	0 a	41.3 fg	67.5 a-e	90 abc	76.3 a
8	DEFINE	9.6	OZ/A	PRE	0 c	0 a	0 a	67 b-e	85 abc	96.3 abc	89.5 a
	SANDEA	0.8	OZ/A	PRE							
9	CAPAROL	0.8	LB A/A	PRE	1.25 bc	0 a	0 a	81.3 abc	95 ab	65 abc	85.8 a
10	CAPAROL	1.5	LB A/A	PRE	0 c	0 a	0 a	86.3 ab	67.5 a-e	91.3 abc	92.5 a
11	V-10142	0.4	LB A/A	PRE	6.25 a	0 a	0 a	45 efg	75 a-d	97.5 ab	84.5 a
12	DUAL MAGNUM	1	PT/A	PRE	3.75 ab	0 a	0 a	72 bcd	100 a	82.5 abc	92.5 a
	COBRA	16	OZ/A	PRE							
13	MATRIX	1	OZ/A	PRE	1.25 bc	0 a	0 a	42.5 efg	35 ef	75 abc	86.3 a
14	NAI 1333	2.5	OZ/A	PRE	3.75 ab	0 a	0 a	20 gh	10 f	60 bc	82.5 a
LSD (P=.05)					3.64	0	0	25.47	38.46	37.85	29.47

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

Note: Research results only. Some treatments in this trial are not currently registered on the crop

Snap Bean Herbicide Efficacy - Arlington, WI - 2012

Trt No.	Treatment Name	Rate	Rate Unit	Grow Stg	% Injury 7/9/12	% Weed Control 7/9/12			
						COLQ	RRPW	VELE	YEFT
1	HANDWEEDED CHECK				0 a	100 a	100 a	100 a	100 a
2	UNTREATED CHECK				0 a	0 e	0 d	0 c	0 d
3	OUTLOOK	16	OZ/A	PRE	2.5 a	94 ab	96.5 ab	94 ab	89 ab
	RAPTOR	4	OZ/A	EPOST					
	BASAGRAN	1	PT/A	EPOST					
	NIS	0.3	% V/V	EPOST					
4	REFLEX	1	PT/A	PRE	0 a	63.8 cd	61.3 c	77.5 b	76.3 bc
	DUAL MAGNUM	1	PT/A	PRE					
5	DUAL MAGNUM	1	PT/A	PRE	1.3 a	86.3 abc	97.5 ab	90 ab	93.8 ab
	RAPTOR	4	OZ/A	EPOST					
	BASAGRAN	8	OZ/A	EPOST					
	NIS	0.3	% V/V	EPOST					
6	DUAL MAGNUM	1	PT/A	PRE	0 a	71.3 bcd	88.8 ab	77.5 b	82.5 abc
	SANDEA	0.8	OZ/A	PRE					
7	DEFINE	9.6	OZ/A	PRE	0 a	57.5 d	88.8 ab	77.5 b	68.8 c
8	DEFINE	9.6	OZ/A	PRE	0 a	72.5 bcd	80 b	92.5 ab	93.3 ab
	SANDEA	0.8	OZ/A	PRE					
9	CAPAROL	0.8	LB A/A	PRE	0 a	86.3 abc	96.3 ab	87.5 ab	87.5 abc
10	CAPAROL	1.5	LB A/A	PRE	1.3 a	86.3 abc	90 ab	96.3 ab	90 ab
11	V-10142	0.4	LB A/A	PRE	0 a	66.3 cd	88.8 ab	96.3 ab	90 ab
12	DUAL MAGNUM	1	PT/A	PRE	0 a	70 bcd	100 a	82.5 ab	88.8 abc
	COBRA	16	OZ/A	PRE					
13	MATRIX	1	OZ/A	PRE	1.25 a	53.8 d	83.8 ab	87.5 ab	85.8 abc
14	NAI 1333	2.5	OZ/A	PRE	0 a	17.5 e	55 c	83.8 ab	78.8 bc
LSD (P=.05)					2.00	24.71	18.40	22.41	20.24

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

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Snap Bean Herbicide Efficacy - Arlington, WI - 2012

Trt No.	Treatment Name	Rate	Rate Unit	Grow Stg	Yield tons/A 8/3/12 sieve 1-3	sieve 4-5	Total
1	HANDWEEDED CHECK				0.681 a	0.8 a	1.481 a
2	UNTREATED CHECK				0.457 a	0.468 a	0.926 a
3	OUTLOOK	16	OZ/A	PRE	0.615 a	0.637 a	1.252 a
	RAPTOR	4	OZ/A	EPOST			
	BASAGRAN	1	PT/A	EPOST			
	NIS	0.3	% V/V	EPOST			
4	REFLEX	1	PT/A	PRE	0.452 a	0.403 a	0.855 a
	DUAL MAGNUM	1	PT/A	PRE			
5	DUAL MAGNUM	1	PT/A	PRE	0.594 a	0.626 a	1.22 a
	RAPTOR	4	OZ/A	EPOST			
	BASAGRAN	8	OZ/A	EPOST			
	NIS	0.3	% V/V	EPOST			
6	DUAL MAGNUM	1	PT/A	PRE	0.485 a	0.474 a	0.958 a
	SANDEA	0.8	OZ/A	PRE			
7	DEFINE	9.6	OZ/A	PRE	0.523 a	0.588 a	1.111 a
8	DEFINE	9.6	OZ/A	PRE	0.457 a	0.425 a	0.882 a
	SANDEA	0.8	OZ/A	PRE			
9	CAPAROL	0.8	LB A/A	PRE	0.599 a	0.702 a	1.301 a
10	CAPAROL	1.5	LB A/A	PRE	0.621 a	0.724 a	1.345 a
11	V-10142	0.4	LB A/A	PRE	0.583 a	0.675 a	1.258 a
12	DUAL MAGNUM	1	PT/A	PRE	0.517 a	0.457 a	0.975 a
	COBRA	16	OZ/A	PRE			
13	MATRIX	1	OZ/A	PRE	0.512 a	0.523 a	1.035 a
14	NAI 1333	2.5	OZ/A	PRE	0.468 a	0.376 a	0.844 a
LSD (P=.05)					0.2289	0.3051	0.5136

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