

RESCUE TREATMENTS FOR COMMON LAMBSQUARTERS CONTROL

Trial ID: SB05-06BB
Conducted: Bean & Beet

Study Dir.: Christy Sprague/Gary Powell
Investigator: Christy Sprague

Date Planted: 4/11/2006 **Row Spacing:** 30 IN
Variety: Crystal 963 **No. of Reps:** 4
Population: 4 3/8" seed spacing **% OM:** 3.3
Soil Type: Silty Clay **pH:** 7.8
Plot Size: 10 X 30 FT **Design:** RANDOMIZED COMPLETE BLOCK

Tillage: Fall Chisel Plow. Spring Field Cultivate.
Fertilizer: Broadcast application of 125#/acre N on March 15, 2006

Crop and Weed Description

Weed	Code	Common Name	Scientific Name
1.	CHEAL	LAMBSQUARTERS, COMMON	CHENOPODIUM ALBUM L.
2.	THLAR	PENNYCRESS, FIELD	THLASPI ARVENSE L.
Crop	Code	Common Name	
1.	BETVU	BEET, SUGAR	

Application Description

Application Timing: 2-4 LQ
Date Treated: 5/22/2006
Time Treated: 3:00 pm
% Cloud Cover: 10
Air Temp., Unit: 55 F
% Relative Humidity: 26
Wind Speed/Unit/Dir: 8 mph NW
Soil Temp., Unit: 54 F
Soil/Leaf Surface M: 5/5
Soil Moist (1=w 5=d): 3

Crop Stage at Each Application

Crop Name: A
 BETVU
Height (In.): 2"-4"
Stage (L): 4-8

Weed Stage at Each Application

Weed 1 Name: A
 CHEAL
Height (In.): 1"-5"
Stage (L): 2-20
Weed 2 Name: THLAR
Height (In.): 2"-8"
Stage (L): rose-flow

Weed Density (plants/sq. ft.)

	1	2	3	4	5	6
Date:	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006	7/21/2006
Weed Name:	CHEAL	POLPY	AMARE	AMBEL	ABUTH	SOLPT
Density:	2	1	0	0	0	<1

Application Equipment

Appl	Sprayer	Speed	Nozzle	Nozzle	Nozzle	Nozzle	Boom	GPA	Carrier	PSI
	Type	MPH	Type	Size	Height	Spacing	Width			
A	Cub	3.8	AirMix	11003	20"	20"	100"	19	H20	27

Comments: Previous Crop: Soybeans. Previous Herbicide: Roundup.

June 12- 3.5 oz/acre Amistar applied
 July 7- 0.5 oz/acre Topsin applied
 July 19- 9.2 oz/acre Headline applied
 July 31- 13 oz/acre Emminent applied
 August 15- 9.2 oz/acre Headline applied

Weed Code						CHEAL		CHEAL		CHEAL	
Crop Code						BETVU		BETVU		BETVU	
Rating Data Type						injury	control	injury	control	injury	control
Rating Unit						percent	percent	percent	percent	percent	percent
Rating Date						5/30/2006	5/30/2006	6/8/2006	6/8/2006	6/15/2006	6/15/2006
Trt-Eval Interval						8 DA-A	8 DA-A	17 DA-A	17 DA-A	24 DA-A	24 DA-A
Trt No.	Treatment Name	Form Conc	Rate	Grow Stg	Appl Code						
1	Betamix	1.3	3	pt/a	2-4" LQ A	8	71	5	70	3	53
1	Activator 90 NIS		0.25	% v/v	2-4" LQ A						
2	Betamix	1.3	3	pt/a	2-4" LQ A	23	79	9	76	5	61
2	Nortron	4	4	fl oz/a	2-4" LQ A						
2	Activator 90 NIS		0.25	% v/v	2-4" LQ A						
3	Betamix	1.3	3	pt/a	2-4" LQ A	19	86	16	84	9	78
3	Stinger	3	4	fl oz/a	2-4" LQ A						
3	Activator 90 NIS		0.25	% v/v	2-4" LQ A						
4	Untreated				2-4" LQ A	0	0	0	0	0	0
5	Betamix	1.3	3	pt/a	2-4" LQ A	11	71	8	69	0	50
5	MSO		1.5	% v/v	2-4" LQ A						
6	Betamix	1.3	6	pt/a	2-4" LQ A	16	97	8	91	6	86
6	Stinger	3	4	fl oz/a	2-4" LQ A						
6	Activator 90 NIS		0.25	% v/v	2-4" LQ A						
7	Betamix	1.3	3	pt/a	2-4" LQ A	25	88	9	86	7	80
7	Nortron	4	4	fl oz/a	2-4" LQ A						
7	Stinger	3	4	fl oz/a	2-4" LQ A						
7	Activator 90 NIS		0.25	% v/v	2-4" LQ A						
8	Betamix	1.3	4.5	pt/a	2-4" LQ A	23	95	8	94	0	86
8	Nortron	4	4	fl oz/a	2-4" LQ A						
8	Stinger	3	4	fl oz/a	2-4" LQ A						
8	Activator 90 NIS		0.25	% v/v	2-4" LQ A						
LSD (P=.05)						9.2	8.6	8.4	9.9	4.7	10.7
Standard Deviation						6.2	5.9	5.7	6.7	3.2	7.3
CV						40.31	7.98	73.76	9.44	87.19	11.75

SUMMARY: In 2005 a study was conducted that examined several different options for control of escaped common lambsquarters. This study focused on increasing rates of micro-rate treatments and incorporating several different herbicides and/or adjuvants. At the time that the herbicides were applied in this trial, common lambsquarters heights ranged from 2- to 12-inches tall. There were no treatments other than glyphosate that showed any promise of lambsquarters control at this stage. Currently, with out Roundup Ready sugar beets control of common lambsquarters escapes will continue to be a challenge. The first step in keeping lambsquarters under control is to treat it at a much smaller stage. It is extremely important to recognize common lambsquarters escapes early. In our 2006 trial we treated common lambsquarters when plants were 1- to 5-inches tall and sugar beets were in the 4- to 6-leaf stage. Treatments that provided the greatest common lambsquarters control 14 and 21 days after treatment included: 3 to 4.5 pt/A of Betamix + 4 fl oz/A of Nortron + 4 fl oz/A of Stinger + 0.25% v/v of NIS or 6 pt/A of Betamix + 4 fl oz/A of Stinger + 0.25% v/v of NIS. Initially the treatments with Nortron caused more sugar beet injury. All of these treatments are quite expensive, so it is important to get control of common lambsquarters before they get to this point.