

# COMMON GROUNSEL CONTROL IN MINT WITH SPRING POSTEMERGENCE HERBICIDE APPLICATIONS

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## Introduction

Weed control in mint is essential in order to maintain high mint oil yields and quality. Reducing competition from weeds may prolong the productive life of a mint stand. Common groundsel is becoming established in the Treasure Valley and can be difficult to control in mint. Effective herbicide programs for controlling common groundsel in mint need to be identified.

## Methods

A trial was established in a cooperators field that had a dense population of common groundsel. Herbicide treatments were applied with a CO<sub>2</sub>-pressurized backpack sprayer calibrated to deliver 20 gal/acre at 30 psi. Plots were 10 ft wide and 30 ft long and treatments were arranged in a randomized complete block design with three replications. Treatments were applied on April 21 to mint that was an average of 3 inches tall and to common groundsel that ranged from 4 to 11 inches and averaged 8 inches tall. Treatments included Sinbar, Buctril, Basagran, Tough, and Stinger applied alone and in several combinations. Mint injury and common groundsel control were visually evaluated on May 1, May 10, and June 1, and mint injury was evaluated the last time on July 25. Data were analyzed using ANOVA, and treatment means were separated using a protected least significant difference at the 5 percent level, LSD (0.05).

## Results

Treatments containing Buctril caused among the highest injury to mint 10 days after treatment (DAT) (Table 1). This early injury was mostly discoloration of the mint. By 20 DAT, differences in mint injury were not apparent. However, by 40 DAT differences again became apparent, with injury symptoms being mostly stunting. At this evaluation, Buctril plus Tough had greater injury than all other treatments except Buctril alone. By July 25, injury was not noticeable in any of the plots. Sinbar applied alone had little effect on common groundsel for the duration of the experiment. On May 10, Buctril plus Basagran and Buctril plus Tough had the highest groundsel control, while Basagran, Tough and Stinger alone were among the less effective treatments. On June 1 many of the treatments were improving as a result of the mint outgrowing the groundsel. Caution should be used in relying on Buctril for common groundsel control since Buctril resistant populations of groundsel have been documented in Oregon.

Table 1. Mint injury and common groundsel control with postemergence herbicides, Malheur Experiment Station, Oregon State University, Ontario, OR, 2000.

Treatment*	Rate	Mint injury				Groundsel control		
		5-1	5-10	6-1	7-25	5-1	5-10	6-1
	lb ai/acre	%						
Sinbar + COC	0.8 + 1.0 qt	3	2	2	0	3	3	10
Buctril	0.25	17	8	12	0	62	58	90
Basagran + COC	1.0 + 1.0 qt	0	0	0	0	12	17	33
Basagran + COC	2.0 + 1.0 qt	0	2	7	0	33	37	73
Tough + COC	0.94 + 1.0 qt	5	3	5	0	13	30	53
Stinger + NIS	0.19 + 1.0 qt	2	0	3	0	52	30	58
Sinbar + Stinger + COC	0.8 + 0.095 + 1.0 qt	2	0	2	0	58	39	73
Basagran + Tough + COC	1.0 + 0.94 + 1.0 qt	3	3	7	0	50	47	65
Sinbar + Basagran + Tough + COC	0.5 + 1.0 + 0.63 + 1.0 qt	10	8	7	0	43	60	77
Buctril + Basagran + COC	0.25 + 1.0 + 1.0 qt	12	10	5	0	78	97	96
Buctril + Tough + COC	0.25 + 0.94 + 1.0 qt	18	10	17	0	79	94	96
Basagran + Stinger + COC	1.0 + 0.095 + 1.0 qt	3	2	0	0	45	33	50
Untreated		-	-	-	-	-	-	-
LSD (0.05)		7	NS	8	NS	17	22	23

\*Treatments were applied on April 21.