

## EVALUATION OF RAMROD, LASSO, AND PROWL HERBICIDES ON SEED RADISH, 1997

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### Abstract

*Herbicides Ramrod (propachlor), and Lasso (alachlor) were applied postplant, preemergence; Prowl (pendimethalin) was applied postplant, preemergence and postemergence for weed control in seed radish (Raphanus sativus) in central Oregon. Ramrod provided the best results with 100 percent control of redroot pigweed and Jim Hill mustard, and 75% control of hairy nightshade. Lasso controlled 100% of redroot pigweed, but inadequate control of Jim Hill mustard. Prowl applied postplant, preemergence generally provided better weed control than when applied postemergence, which resulted in 57% crop stunting*

### Introduction

The quest continues for new materials to use on seed radish that are effective on spring-germinating weeds in central Oregon. Herbicides that appear promising will be pursued for a possible Special Local Need 24(c) Registration.

During 1996, Ramrod (propachlor), Lasso (alachlor), and Prowl (pendimethalin) were applied postemergence to seed radish (*Raphanus sativus*) and onions (*Allium cepa*). Prowl provided 99 to 100% control of common lambsquarters and redroot pigweed. Lasso controlled redroot pigweed at 98% and grass species at 96%. The best control Ramrod provided was on redroot pigweed at 90%.

### Methods and Materials

The 1997 herbicide evaluation was conducted with Bob Crocker, grower-cooperator, on a commercial field of seed radish north of Madras, Oregon. Postplant, preemergence applications of Ramrod at 5.0 qt/a, Lasso at 2.5 pt/a and Prowl at 2.0 pt/a were made April 23, 1997 and postemergence application of Prowl at 2 pt/a was made May 9, 1997. Treatments were applied with a CO<sub>2</sub> pressurized, hand-held boom sprayer at 40 psi and 20 gal/a water. Plots 10 ft x 20 ft were replicated three times in a randomized complete block design. Preemergence herbicides were incorporated by sprinkler irrigation shortly after application. Treatments were evaluated June 2 for control of redroot pigweed, hairy nightshade, and Jim Hill mustard. Reduction in stand and crop injury were rated visually.

### Results and Discussion

Ramrod provided the best overall results with 100% control of redroot pigweed and Jim Hill mustard, and 75% control of hairy nightshade. Lasso controlled 100% of redroot pigweed, but only 67% control of Jim Hill mustard. Prowl applied postplant, preemergence provided better control of redroot pigweed (93 to 33%) but slightly less control of hairy nightshade (63 to 70%)

and Jim Hill mustard (83 to 100%) than Prowl applied postemergence. Prowl applied postemergence resulted in 57% crop stunting, while post-plant, preemergence applications did not produce any visible stunting.

Table 1. Effect of herbicides applied postplant, preemergence April 23 and postemergence May 9, 1997, on commercial seed radish at Bob Crocker Farms near Madras, OR.

Treatments <sup>2</sup>	Rate (product/a)	Weed Control <sup>1</sup>			
		Redroot Pigweed	Hairy Nightshade	Jim Hill Mustard	Stunting
					(%)
Ramrod (preemergence)	5.0 qt	100 a <sup>3</sup>	75 a	100 a	0 b
Lasso (preemergence)	2.5 qt	100 a	12 ab	67 a	0 b
Prowl (preemergence)	2.0 pt	93 a	63 a	83 a	0 b
Prowl (postemergence)	2.0 pt	33 ab	70 a	100 a	57 a
Untreated		0 b	0 b	0 b	0 b

<sup>1</sup>Visual evaluation was conducted June 2, 1997.

<sup>2</sup>Treatments applied preemergence April 23 and postemergence May 9, 1997.

<sup>3</sup>Mean separation with Student-Newman-Keuls P<0.05.