

HERBICIDE EVALUATION ON SEED CARROTS, 2002

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Abstract

The herbicides Lorox[®], Lexone[®], and Caparol[®] were applied alone and in combination to seed carrots at layby. Lorox and Caparol alone and in combination with other products provided 99-100 percent control of redroot pigweed, the dominant weed species. Lexone provided 78 percent control of redroot pigweed. All products controlled common lambsquarters, but none controlled common groundsel or redstem filaree.

Introduction

This project is part of an ongoing search for additional tools for control of weeds in seed carrots. Lorox is the standard herbicide, with Caparol used for specific weed control situations. The objective of this project was to compare Lorox, Lexone, and Caparol applied alone and in combination when applied at layby.

Methods and Materials

Herbicides were applied to 10-ft by 25-ft plots on the female rows of hybrid carrots near Culver, Oregon. Lorox at 2.0 lb/acre, Lexone at 0.33 lb/acre and Caparol at 2.0 pt/acre applied alone and Lorox at 1.5 pt/acre tank mixed with Caparol at 1.5 pt/acre or Lexone at .33 lb/acre were applied May 23, 2002. Plots 10-ft by 25-ft were replicated three times in a randomized complete block design. Herbicides were applied with a CO₂-pressurized, hand-held, boom sprayer at 40 psi and 20 gal/acre water. Plots were evaluated for stunting and herbicide efficacy June 4. The weed spectrum across the untreated plots was 85 percent redroot pigweed, 4 percent redstem filaree, 3 percent hairy nightshade, 3 percent common lambsquarters, 3 percent common groundsel, and 2 percent kochia. As the dominant species, redroot pigweed was evaluated using percent control. The minor presence of the other weed species were rated yes, no, or occasional.

Results and Discussion

Control of redroot pigweed was 99-100 percent with Lorox and Caparol, alone or in combination with other products, while Lexone provided 78 percent control. Hairy nightshade was controlled with Lorox and Caparol, but not Lexone. All three products controlled common lambsquarters, but did not control either common groundsel or redstem filaree.

Table 1. Effect of herbicides applied May 23 on broadleaf weeds in carrot seed fields, near Culver, OR, 2002.

Treatment	Rate	Redroot pigweed	Hairy nightshade	Common lambsquarters	Kochia	Common groundsel	Redstem filaree	
		Percent control	-----Present-----					
Lexone	1/3 lb	78 b ¹	Yes	No	Occ ²	Yes	Yes	
Lorox + Lexone	1.5 lb + 0.33 lb	99 a	No	No	Occ	Yes	Yes	
Lorox	2.0 lb	100 a	No	No	No	Yes	Yes	
Lorox + Caparol	1.5 lb + 1.5 pt	100 a	No	No	Occ	Yes	Yes	
Caparol	2 pt	99 a	No	No	No	Yes	Yes	
Untreated	----	0 c	Yes	Yes	Yes	Yes	Yes	

¹Mean separation with LSD at $P \leq 0.05$.

²Occ = occasional