

EVALUATION OF RELY® FOR CROP TOLERANCE ON PERENNIAL RYEGRASS, 2000-2001

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Abstract

Rely® was evaluated for stunting and stand reduction on perennial ryegrass near Madras, Oregon. Treatments were applied November 7, March 8, and March 27. Crop injury following application of Rely at 3 pint/acre increased as the number of applications increased from one to three. Single applications on either March 8 or March 27 did not significantly increase crop injury compared to untreated plots.

Introduction

Grass seed growers in central Oregon are concerned about cheatgrass control in all their grass seed crops, including the recently revived production of perennial ryegrass. The objective of this trial was to evaluate the timing of Rely on crop injury, when applied as single, double, or triple applications to perennial ryegrass.

Methods and Materials

Plots were placed in a commercial perennial ryegrass field ('Gater II') near Madras, Oregon. Plots were replicated three times in a randomized complete block design. Rely was applied without surfactant at 3 pint/acre as single, double, or triple applications on November 7, March 8, and March 27. Plots 10 ft x 20 ft were treated with a CO₂-pressurized, hand-held boom sprayer at 40 psi and 20 gal/acre water. Plots were evaluated for combined stunting and stand reduction on April 25.

Results and Discussion

Rely applied as a single application on either March 8 or March 27 did not significantly change stunting and stand reduction (Table 1) compared to untreated plots. The single March 8 application produced 3 percent stunting and stand reduction compared to 12 percent following the March 27 application. Double applications of Rely increased injury to 27 percent (March 8 and March 27 applications) and 30 percent (November 7 and March 8 applications) compared to untreated or single applications. A triple application of Rely (November 7, March 8, and March 27) produced 53 percent injury.

Anything over a single application of Rely at 3 pint/acre caused unacceptable crop injury. Additional evaluations are needed to determine optimal application timing.

Table 1. Effect of Rely herbicide on combined stunting and stand reduction on perennial ryegrass ('Gater II') near Madras, Oregon, 2000-2001.

Product	Application timing			Combined stunting and stand reduction
	November 7	March 8	March 27	
	-----product/acre-----			----%----
Untreated	----	----	----	0 a ¹
Rely	----	3.0 pt	----	3 a
Rely	----	----	3.0 pt	12 a
Rely	----	3.0 pt	3.0 pt	27 b
Rely	3.0 pt	3.0 pt	----	30 b
Rely	3.0 pt	3.0 pt	3.0 pt	53 c

¹Mean separation with Student-Newman-Kuels (SNK) Test at $P \leq 0.05$.