Canola Herbicide Trial Overview

G.J. Endres, R.A. Henson, and B.L. Johnson

Weed management is an important factor for successful canola production. The Carrington Research Extension Center continues to conduct research to assist growers with weed management strategies. Three canola herbicide trials were conducted at the Carrington Center in 2000. The trial titles and a brief description of each follow:

- *Traditional and herbicide-tolerant canola production systems comparison*

  The trial was initiated in 1999 at six ND test sites. Performance and economics of open-pollinated and hybrid canola cultivars using traditional herbicides were compared to herbicide-tolerant cultivars with Roundup, Liberty, or Raptor for weed control. In 1999, hybrids provided higher economic returns than open-pollinated cultivars. The Hyola 357RR with Roundup system had the greatest average economic return among the six production systems tested. In 2000, 10 production systems were tested.

- *Liberty-resistant canola herbicide*

  The trial included eight treatments with Liberty herbicide at selected rates, application timings, and tank mixtures with the Liberty-tolerant cultivar InVigor 2573. Canola generally was not injured with herbicide treatments. Sequential applications 20/20 fl oz/A and 34 fl oz/A of Liberty did not improve control of eight weed species compared to Liberty at 28 fl oz/A.

- *Roundup-resistant canola herbicide*

  The trial included 13 treatments with Roundup Ultra herbicide at selected rates, application timings, and tank mixtures with the Roundup-tolerant cultivar Hyola 357RR. Canola was not injured and foxtail, horseweed, and pigweed control generally was > 90% among treatments. At crop maturity, wild buckwheat control was highest (96%) with sequential applications of Roundup Ultra at 1.5 pt/A at the 1- to 2-leaf stage followed by 1 pt/A at the 3- to 4-leaf stage of canola.

Additional trial details may be obtained from the Carrington Center. 1