

## Do Manitoba Producers Reduce In-Crop Herbicide Rates?

Thomas, A.G.<sup>1</sup>, Leeson, J.Y.<sup>1</sup>, Beckie, H.J.<sup>1</sup>, Van Acker, R.C.<sup>2</sup> and Andrews, T.<sup>3</sup>

<sup>1</sup>Agriculture and Agri-Food Canada, Saskatoon, SK; <sup>2</sup>Dept. of Plant Science, University of Manitoba, Winnipeg, MB; <sup>3</sup>Manitoba Agriculture and Food, Carman, MB.

### Abstract

Anecdotal evidence has suggested that Manitoba producers frequently reduce in-crop herbicide rates but quantitative data are lacking to support this fact. The management questionnaire used in Manitoba, as part of the prairie weed survey project, provided an opportunity to collect information on this practice for spring wheat, oats, and canola. In-crop herbicide rate data were obtained from 222 questionnaires completed in 2002. Producers indicated that they had reduced the rates of one herbicide on 32% of the sprayed area and an additional 1% of the area was not sprayed. However, 9% of the area received a herbicide at higher than recommended rates. Herbicides belonging to Groups 1, 2, 4 and 6 were used most frequently. Products containing Group 4 herbicides were used on 60% of the surveyed area and only 16% of the surveyed area had Group 4 products applied at reduced rates, resulting in the highest use intensity ( $0.26 \text{ kg ai ha}^{-1}$ ) for any Group. Groups 9 and 10 were each used on 12% of the area. Group 9 products were most often used at the highest recommended rate. Groups 7 and 8 were rarely used in the province. Reduction of herbicide usage varied with ecoregions with 39% of the Lake Manitoba Plain and 27% of the Aspen Parkland receiving a reduced rate application. The total amount of herbicide applied to wheat and oats in Manitoba was marginally less than would have been applied if all fields received the minimum recommended rates. The total amount for canola was higher. Further adoption of rate reductions will depend on the willingness of the regulatory, research, extension, and agri-business communities to assist producers by documenting the risks and benefits of these practices and demonstrating how preventive and integrated weed management options support reduced herbicide usage.