

## **Weed Control in Cole Crops and Onion (*Allium cepa*) Using Ammonium Nitrate**

Weed control in cole crops and onion by postemergence spraying with liquid ammonium nitrate was studied to determine its feasibility under Fraser Valley, British Columbia conditions. Ammonium nitrate solutions (7.5, 10, 15 and 20% N) were applied at 800 L ha<sup>-1</sup> on warm, sunny days. Shepherd's-purse, low cudweed, redroot pigweed and ladythumb were susceptible to this treatment; common lambsquarters, common purslane and annual bluegrass were tolerant. In order to determine the effect of weed density on weed control, several shepherd's-purse densities were established in broccoli and sprayed with ammonium nitrate solution (20% N; 800 L ha<sup>-1</sup>). Two days after treatment, weed control was 87.2% for an initial density of 500 shepherd's-purse plants m<sup>-2</sup> (1987) and 76.1% for an initial density of 988 plants m<sup>-2</sup> (1988). The seedlings that survived the treatment were sufficiently set back that they did not cause any adverse effect on crop yield. In a separate study, cabbage and onion were found to be tolerant to the ammonium nitrate treatment. Initially, cauliflower, broccoli and Brussels sprouts growth was slightly inhibited by the ammonium nitrate treatment but the plants recovered and crop yield was not affected.