

Canola seedlings can withstand a considerable frost (-5 to -8 °C) if plants have become acclimatized following a few days of cold temperatures. However, canola seedlings growing under warm conditions will be tender, and can be killed by even a few degrees frost. Ice crystals will form on the leaf surface before they form within cells causing damage.

- Prior to taking any action, wait four to five days to assess any damage.
- Check the growing point for green colour at the centre of the leaf rosettes. Although the cotyledons or other leaves may be black, re-growth can occur in 4-10 days depending on weather conditions.
- Assess stand survival prior to making application of any weed control product. Allow a minimum of 1-2 days for plants to recover, before applying any product. If frost damage to canola plants is significant, wait at least 4-5 days to assess survival and for new growth to emerge. Plants that have new leaf area are better able to handle (metabolize) the herbicide, even if they are herbicide tolerant. Herbicide activity on weeds will be improved when application is made to weeds that have resumed growth. Liberty works best when applied during the heat of the day.
- Check fields for flea beetle activity. Populations and damage has been low to date, but can build quickly under warm (>15°C), sunny weather. Seed treatments provide protection for 3-4 weeks from time of planting, so in some cases control may have run out before canola is past the critical stage (3-4 leaves). Action threshold is 25% leaf feeding damage.

For further information on assessing frost damaged canola, refer to Canola Council Factsheet: Tips for Assessing spring frost damage to canola @ http://www.canola-council.org/canola_resources/product37.aspx



2 Days following hard frost. Note new growth

Winter Canola

Frost can be more damaging to canola in flower. Pollination may not be affected, but freezing temperatures of -3 to -4 °C for several hours can damage developing seeds and begins as early as 8 days prior to pollination. These freezing temperatures can also reduce seed fill. Fortunately most areas experienced temperatures above this, but it will take several days to assess damage to newly formed pods. Check pods for damaged seeds will have lost their green colour and turgidity. There is little experience with freezing temperature at flowering to provide clear guidelines.

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