

## **Sprout Inhibition in the Field**

**Note:** This information is adapted from the publication titled *Guide to Commercial Potato Production on the Canadian Prairies* published by the Western Potato Council, 2003.

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Sprout inhibition is essential to maintain tuber quality for the table and processing markets stored past January. Sprouting causes tuber dehydration, physiological aging and affects the appearance of the tuber for the table market. Sprout inhibition is achieved through a combination of proper storage management and the use of a sprout inhibitor. There are two sprout inhibitors registered for use in Canada. MH60, which is applied to the crop approximately 2-3 weeks before harvest or vine kill or Chloroprotham (CIPC), which is applied to potatoes in storage.

Maleic hydrazide (MH), commonly available as Royal ®MH60SG, is registered for field application to prevent sprouting in storage. There are many advantages to field applying a sprout inhibitor:

- MH can be applied to very small plots of potatoes.
- Potatoes are not subject to the in-storage stress associated with CIPC application.
- Storages containing MH60-treated potatoes do not become contaminated with sprout inhibitor residues and pose no restrictions for the future storage of potato seed. CIPC-treated storages are contaminated with sprout inhibitor and should not be used for seed storage until thoroughly cleaned.
- Field treating reduces the likelihood of volunteer potatoes the following spring.

To achieve the best results from MH60 consider the following:

MH60 is translocated from the vines to the tubers. Translocation will only occur if the vines are healthy. Diseases, insect damage, weeds, environmental stress, senescence and poor application interfere with translocation of MH60 and will reduce the effectiveness of the sprout inhibitor.

MH must be applied after tuber formation and cell division are complete. Normally MH is applied at least 2 weeks prior to vine killing, harvest or frost. Tubers should be at least 2.5 inches (6-7 cm) in diameter at the time of application. Incorrect timing can result in a yield loss or inadequate sprout inhibition.

Growers should read the label before applying MH60. Apply Royal ®MH60SG at a rate of 2.29 kg/ac (5.65 kg/ha), in a minimum of 27 gpa (300 l/ha) of water by ground equipment, or a minimum of 40.5 l/ac (100 l/ha) by aerial equipment.