

PROCEDURES FOR GREENHOUSE FUMIGATION

April 2004

The following information has been provided to supplement and/or clarify label directions. Should information provided conflict with label directions, follow the label. If in doubt regarding any label direction, contact the pesticide manufacturer.

Greenhouse fumigants (which include true gases, smokes and suspensions in air) can only be used in greenhouses that are completely separate from any dwellings used for humans or livestock.

Do not fumigate a structure that has a common floor, wall or ceiling with a human or livestock dwelling.

Greenhouse fumigants can only be used in greenhouses that can be fully ventilated without causing harm to bystanders or the occupants of adjacent structures.

Storage

Keep all unused fumigants in a locked storage cabinet or other suitable secure storage unit. It is recommended that only the required amount of fumigants be purchased at any one time.

Bystander Protection and Notification

- Fumigation should be carried out at times when the greenhouse is closed to staff, public and/or customers.
- Notify persons responsible for adjacent structures prior to fumigation.
- All entrances to the greenhouse(s) must remain secured (locked) during fumigation.

Warning signs must be placed on or adjacent to all doors of each greenhouse being fumigated. The sign should be in red letters at least 15 millimetres high on a white background and should bear wording similar to the following:

"FUMIGATION - DANGER THIS GREENHOUSE IS BEING FUMIGATED WITH [name of pesticide] - KEEP OUT",

Protective Equipment

- Always use gloves when handling the smoke generators.
- A canister type gas mask, with a new canister, or a self-contained breathing apparatus should be available on-site at all times during the fumigation.

Conducting the Fumigation

- The greenhouse should be sealed to ensure maximum retention of smoke or fog in treatment area.

Do not fumigate during windy weather conditions as this may cause loss of smoke and an incomplete fumigation.

- Read and follow all label directions.
- All persons conducting the fumigation must be at least 18 years of age.
- Two people must be present, one of whom remains outside of the greenhouse during the igniting of the smoke generators and airing-out process to get help should an emergency situation develop.

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Where more than one person ignites a smoke generator they must be in visible or audible contact with everyone else involved with the application at all times.

- When placing a smoke canister in more than one walk, one person should be assigned to each walk so that ignition can start simultaneously.
- Circulate the smoke briefly with ceiling fans at the commencement of the fumigation to ensure even coverage.
- Do not place smoke generators too close to plants.
- Once the smoke generators have been ignited and fumigation is underway, no person should enter the greenhouse.
- Fumigation should be 12 hours in duration (overnight) under normal conditions unless otherwise indicated on product labels.

Ventilation

Do not ventilate during a temperature inversion (poor air circulation) or when ventilation may adversely affect bystanders or the occupants of adjacent structures.

- Follow manufacturer label recommendations for ventilation.
- Always wear protective equipment; gloves, goggles, respirator, protective clothing etc. when ventilating the greenhouse.
- Windows, vents, doors, etc. must be left open until the greenhouse is fully ventilated (several hours).
- All substances used for the sealing of openings during fumigation must be removed from the greenhouse(s) and disposed of with regular waste management collections.
- Warning signs should be removed only when ventilation is complete.

Disposal

Ash residue from smoke generators may be disposed of through regular waste management collections.

Pesticide Poisoning

Greenhouse fumigants may be accidentally inhaled, absorbed through the skin or swallowed if appropriate safety precautions are not followed. Symptoms of poisoning include: pupil of eye shrinks to "pin-point" size, tightness in chest, stomach pains, vomiting and diarrhoea. Contact emergency medical help if poisoning is severe. Information can also be obtained from the Alberta Poison Control Centre at (1-800-332-1414).

For further information regarding *the proper use of greenhouse fumigants*, please contact the fumigant manufacturer.

For information regarding provincial greenhouse fumigation regulations, please contact the nearest regional office Alberta Environment office at:

Grande Prairie (780) 538-5460 Fax: (780) 538-5336
Room 1701, Provincial Building
10320 - 99 Street
Grande Prairie, Alberta T8V 6J4

Edmonton (780) 422-2079 Fax: (780) 422-4192
5th Floor, Oxbridge Place
9820 - 106 Street
Edmonton, Alberta T5K 2J6

Red Deer (403) 340-7052 Fax: (403) 340-5022
3rd Floor, Provincial Building
4920 - 51 Street
Red Deer, Alberta T4N 6K8

Calgary (403) 297-7602 Fax: (403) 297-8232
2nd Floor, Deerfoot Square
2938 - 11 Street NE
Calgary, Alberta T2E 7L7

Lethbridge (403) 381-5511 Fax: (403) 382-4428
2nd Floor, Provincial Building
200 - 5 Avenue South
Lethbridge, Alberta T1J 4C7

Dial 310-0000 first to be connected toll free.