

File: 18818-01

July 25, 2007

## **Management of MSMA-treated Trees in British Columbia**

### **APPLICATION AND SCOPE**

This policy shall apply to Forest Service staff in all Forest Regions and Forest Districts and Timber Sales Business Areas and shall come into force on the date of its signing. An implementation plan will be developed and will be carried out within a reasonable time frame.

The implementation of this policy will be monitored and the policy shall be reviewed periodically to determine the degree to which the guidelines are being implemented. Revisions will be made as deemed appropriate. Specifically, implementation of this policy will be reviewed within two years of its signing.



### **BACKGROUND**

Monosodium methanearsenate (MSMA) is an arsenical pesticide that has been used to treat single trees for small incipient outbreaks of mountain pine beetle and to create lethal trap trees for spruce beetle. This pesticide has been federally registered for use against bark beetles in Canada under the trade name Glowon<sup>®</sup>.

The federal registration for Glowon<sup>®</sup> has expired; the supplier will not pursue re-registration due to data needs and projected market size. The Ministry of Forests and Range will not pursue re-registration of this material. The Ministry of Forests and Range has made the decision that it will no longer use Glowon<sup>®</sup> and that all existing stocks of the material will be disposed of.

The Forest Practices Board Audit of the bark beetle practices in the Nadina Forest District (2004) made the following recommendation: "The Ministry of Forests provide provincial policy for tracking MSMA-treated trees to ensure that treated trees are not harvested and milled." This policy sets out guidelines for management of the legacy MSMA-treated trees.

## **POLICY INTENT**

This policy has several purposes:

1. to provide guidance for the use of pesticides that are similar in action to Glowon<sup>®</sup> for the purpose of bark beetle control;
2. to provide clear direction that any MSMA-treated trees that are encountered shall be identified and marked but not be harvested;
3. to establish guidelines that will address legacy trees with the purpose of minimising the potential for exposure to those trees by forestry workers and by the public;
4. to establish policy priorities relating to legacy trees and sites;
5. to establish research priorities that will improve knowledge of the impact of legacy trees upon the environment and to initiate or promote funding for these research areas.

## **POLICY RATIONALE**

1. *to provide guidance for the use of pesticides that are similar in action to Glowon<sup>®</sup> for the purpose of bark beetle control*
  - ◆ All applicable Federal and Provincial Legislation and the Regulations there under shall be followed with respect to the storage, transport, use and disposal of pesticides.
  - ◆ Any future considerations regarding the use of an active ingredient similar to that of MSMA must conform to the *Integrated Pest Management Act* and its Regulations.
  - ◆ Where replacement treatments are used, any advertising relating to that use and/or requesting comments from the public on pesticide use shall be clearly worded and not use ambiguous or excessively technical language.
  - ◆ In general, any pesticide that may be registered for single tree treatment shall be used only in areas that are considered to be inaccessible, where there is no expectation that harvesting will occur in the foreseeable future and in inoperable areas, where the potential for risk of exposure to private citizens and forestry workers is minimised. Treatment in inoperable areas should not normally occur near private property or in areas that are or could be frequented by people.
  - ◆ Where pesticides for single tree treatments may be used, detailed mapping utilising accurate GPSd locations will be mandatory and the resultant maps will be communicated to BC Timber Sales and to other agencies and licensees for their use in developing plans.

2. *to provide clear direction that any MSMA-treated trees that are encountered shall be indentified and marked but not be harvested*
  - ◆ Legacy trees that are encountered shall not be harvested, removed, milled and/or burned.
  - ◆ The Ministry of Forests and Range will work with BC Timber Sales and licensees to develop and implement controls that prevent the harvesting, removal and milling of legacy trees in areas where treatments are known to have occurred.
  
3. *to establish guidelines that will address legacy trees with the purpose of minimising the potential for exposure to those trees by forestry workers and the public*
  - ◆ A provincial database shall be developed and posted on the Ministry of Forests and Range website that summarises, by forest district:
    - location of legacy trees (GPS coordinates) including the following:
      - the approximate number and species of legacy trees,
      - the approximate area of the patch in hectares.
    - the date (season and year) that the legacy trees or legacy tree patches were established, if known.
  - ◆ The provincial database shall be available in a tabular and a map-based format for each forest district that will provide information on proximity to other resource values.
  - ◆ Human health risk assessment information relating to the risks from MSMA and from legacy trees shall be made available on the Ministry of Forests and Range website.
  
4. *to establish policy priorities relating to legacy trees and sites*
  - ◆ Where legacy trees are encountered, they shall be marked conspicuously, left on-site, and the site GPSd and reported to the data base custodian.
  - ◆ Where legacy trees are encountered they may be incorporated into leave areas. Where this approach is not practical, the trees should be marked conspicuously as MSMA-treated trees, and left on-site. It is recommended that these sites shall be mapped by BC Timber Sales and/or licensees and shall be recorded and reported to the data base custodian for entry into the provincial data base.

- ◆ Where legacy trees are incorporated into wildlife tree patches:
  - a previously-determined legacy threshold shall be complied with; and,
  - there shall be no net loss of habitat at the landscape level as a result of legacy trees being included in wildlife tree patches (e.g. non-salvageable stands). Heavily MSMA-treated stands should not be used as suitable wildlife tree patches and efforts should be made to compensate for habitat loss in these areas.
  
- 5. *to establish research priorities that will improve knowledge of the impact of legacy trees upon the environment and human health and to initiate or promote funding for these priorities*
  
- ◆ Identify knowledge gaps around longevity of arsenic risk in legacy trees and their surroundings (soil and botanicals):
  - measure total arsenic in samples from legacy and reference trees and surroundings.
  - organic arsenic speciation of legacy trees if required.
- ◆ Determine presence of arsenic in secondary insects:
  - determine presence of secondary insects and other invertebrates in legacy trees.
  - determine presence and extent of arsenic in those invertebrates that are found in legacy trees, relative to background levels in the same species that are found in non-treated trees.
- ◆ Identify woodpecker usage of legacy trees:
- ◆ Determine potential threats to other wildlife from legacy trees:

### DEFINITIONS

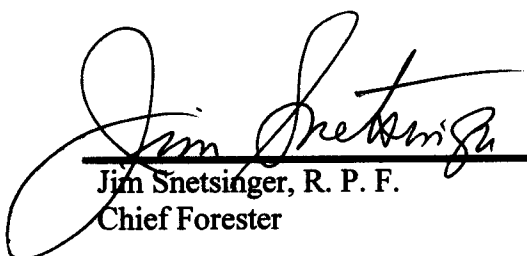
**Inaccessible/isolated** means out-of-the way, secluded, where there is no chance of harvesting in the foreseeable future, where there is no private property of any kind in close proximity and where there are no areas (such as remote recreation sites) that are or could be frequented by people.

**Inoperable** means that terrain, slope, water, soil or environmentally sensitive site barriers would preclude harvesting.

Management of MSMA-treated Trees in British Columbia

**Legacy tree** means a tree that has been treated previously with MSMA and is still on-site, either standing or felled.

**Legacy threshold** means the maximum proportion of legacy trees to non-treated standing trees of merchantable size and species that is permitted within a wildlife tree patch.



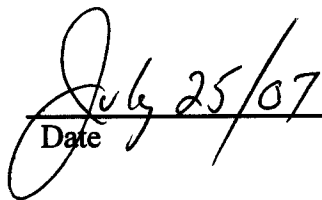
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Jim Snetsinger, R. P. F.  
Chief Forester



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Tim Sheldon  
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Operations Division



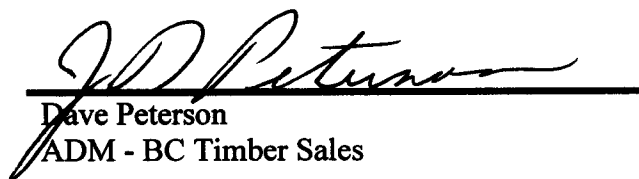
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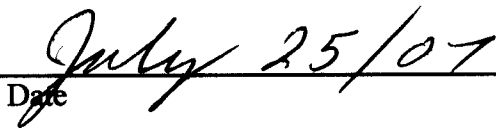
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Dave Peterson  
ADM - BC Timber Sales



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Date