

Dutch Elm Disease Prevention/Control Measures

Under the *Plant Protection Act* “*Plant Protection Regulation*” of Canada, the movement of the Dutch elm disease (DED) pathogen is regulated. Elms from a DED infected province cannot be shipped to a disease free province. Alberta and British Columbia are classified as DED free.

Under the *Alberta Agricultural Pests Act* (APA) “*Pest and Nuisance Control Regulation* (PNCR)” the Dutch elm disease (DED) pathogens, smaller European elm bark beetle (SEEBB), and the native elm bark beetle (NEBB) are named declared pests. All municipalities, counties and MD’s in the province of Alberta have the responsibility and authority to prevent and control DED under the APA.

The APA provides a means for enforcement. Several sections of the APA and the Regulation can be applied. It is an offence not to take “active measures” and not to follow an inspector’s notice.

If a municipality does not have a local bylaw or policy on a specific pest in place, the municipal pest inspector, bylaw enforcement officer or Agricultural Fieldman could use a notice under the APA to enforce the DED Prevention/Control Measures to the land owner. If a third party has contravened the APA, the Minister may issue a Stop Order.

Section 5 of the APA contains the duties of individuals to take “active measures” with respect to pests.

- **5 (2)** - An owner or occupant of land or property or the owner or person in control of livestock shall take active measures to
 - (a) prevent the establishment of pests on or in the land, property or livestock unless otherwise authorized by the Minister,
 - (b) control or destroy all pests on or in the land, property or livestock unless otherwise authorized by the Minister, and
 - (c) destroy any crop, vegetation or other matter that contributes or may contribute to the maintenance or spread of a pest on or in the land, property or livestock.

Section 6 of the APA identifies the duties of the local authority of a municipality to prevent the establishment of a pest or to control or destroy a pest in a municipality.

- **6** - A local authority of a municipality shall take active measures
 - (a) to prevent the establishment of, or
 - (b) to control or destroy,pests in the municipality.

Section 12 of the APA states inspectors can issue notices that specify the measures a person must take to address a pest issue and this section authorizes inspectors to respond to cases of non-compliance

- **12 (1)** When an inspector is of the opinion that land, property or livestock contains or is likely to contain a pest or should be protected against a pest, the inspector may issue a notice in writing directed to the owner or occupant of the land or property or to the owner or person in control of the livestock
 - (a) setting out the legal description of the land affected or a description of the livestock affected and the legal description of the land on which the livestock are located,
 - (b) naming the pest,
 - (c) specifying the measures to be taken and the material, if any, to be used to prevent the establishment of or to control or destroy the pest, and
 - (d) requiring the measures described in clause (c) to be taken within a specified period of time.

Section 4 of the *Pest and Nuisance Control Regulation* prohibits “dispositions” of “infestable” items. Care must be taken when transporting an elm tree positively diagnosed as contaminated with DED to the disposal site. All tree material must be covered and secured, eliminating the chance of contaminating healthy elm trees.

- 4(1) A person shall not import, purchase, sell or otherwise dispose of, transport, distribute or plant any infestable item that is infested or any pest without the prior written authorization to do so of a provincial inspector or, if the article is to be kept in Alberta, of a local inspector who is empowered to act in the local jurisdiction where it is to be kept.

Section 20 of the APA states a Stop Order can be issued if the Minister is satisfied that a person has contravened or is contravening the APA.

- **20(1)** Notwithstanding anything in this Act, if the Minister is satisfied that a person
 - (a) has contravened or is contravening this Act or the regulations, or
 - (b) owns or operates anything that causes the maintenance or spread of a pestthe Minister may direct a stop order to that person in accordance with subsection (2).
- (2)** In a stop order, the Minister may order the person to whom it is directed to
 - (a) cease the contravention specified in the order,
 - (b) stop the operation of a plant, structure, equipment or thing specified in the order, either permanently or for a specified period, or
 - (c) cease the contravention under clause (a) and stop the operation under clause (b),and the stop order shall contain the Minister’s reasons for making it.
- (3)** The Minister shall cause a copy of the stop order to be served on the person to whom it is directed, and that person, on receipt of the copy, shall comply with the stop order forthwith.
- (4)** A person who is served with the stop order under subsection (3) and fails to comply with the stop order forthwith is guilty of an offence and liable to a fine of not more than \$1000 for each day that the offence continues.
- (5)** If the person to whom a stop order is directed fails to comply with the stop order forthwith on service of a copy of it on the person, the Minister may apply to the Court for an order directing that person to comply with the stop order.
- (6)** If the person to whom the stop order is directed fails to comply with the Court order,
 - (a) the failure to comply with the stop order may be dealt with by the Court as a civil contempt of the Court,
 - (b) an inspector authorized by the Minister for the purpose and persons assisting the inspector may, without notice and without incurring liability, enter on any land and do any acts necessary to carry out the stop order,
 - (c) a civil enforcement bailiff may assist the inspector and the inspector’s assistants in enforcing their powers and duties under clause (b), and
 - (d) the Minister may recover by action any expenses incurred by the Crown in carrying out the stop order from the person to whom the stop order was directed.
- (7)** The Minister may
 - (a) amend a stop order if the Minister considers it advisable in the circumstances to do so, or
 - (b) revoke a stop orderand shall notify accordingly the person to whom the stop order was directed.
- (8)** Service of the stop order, Court order and notification under subsection (7) shall be effected by any of the methods set out in section 12(3).

A copy of the Alberta Agricultural Pests Act (APA) and the Pest and Nuisance Control Regulation (PNCR) can be found at: [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/acts6008](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/acts6008)

Dutch Elm Disease Prevention/Control Measures

“Elm tree” means any tree or part of a tree of the Ulmus genus and its cultivars, including the American, Siberian and Japanese elm trees.

1. Elm Pruning Ban

Pruning ban period means the period commencing on April 1 and ending on September 30 of the same year.

Elm bark beetles (EBB), the vectors of DED, are active between these dates and can be attracted to the scent of fresh tree cuts, possibly infecting a healthy tree.

2. Elm Preventive Pruning and Removal

Pruning elms can only be carried out commencing October 1 to March 31 the following year. Elm trees can be removed any time of the year. (see 4. below)

Preventive pruning or tree removal is essential to eliminate breeding material for the elm bark beetles (EBB). Preventive pruning is the systematic removal of dead, damaged, or diseased other than from DED branches from healthy elm trees. If a tree is dead or dying it should be removed. All elm wood must be properly disposed. (See 4. and 5. Below) Keeping elms well-maintained will aid in the control of DED.

Improper pruning techniques and tree topping can weaken the elm tree, creating a hazard and increase the risk of attracting EBBs.

To avoid spreading DED, all equipment must be sterilized before pruning a different elm tree. To sterilize your tools, use methyl hydrate, a 25% solution of bleach and water, or a 70% concentrate of rubbing alcohol. Note that bleach can rust iron-based tools.

3. DED Confirmation

Before any DED suspect tree is removed, the presence of the Dutch elm disease fungus must be confirmed. All DED suspect elm trees must be sampled properly and the samples sent to a lab approved by the Alberta Agriculture and Forestry for confirmation testing. Suspect DED samples are tested at no cost to sender. Suspect DED sample instructions can be found on www.stopded.org and click on “Sampling Procedures”. Call the STOPDED hotline at 1-877-837-3567 for more instructions.

4. Elm Tree Removal

An elm tree can be removed at any time of the year as long as it is immediately disposed. (See 5. below) Elm tree removal means to remove the trunk and all other parts of a tree including the stump.

When an elm tree has tested positive for DED, the tree must be removed immediately and properly disposed. (See 5. below.) The stump must also be properly treated. (See 7. below) Prompt removal of infected trees is an imperative first step in slowing down the spread of DED.

To eliminate EBB breeding material, remove all dead and dying elm trees regardless of the reason for their poor condition.

5. Elm Wood Disposal

Elm wood cannot be stored, or transported unless in route to the closest elm wood disposal site. All elm wood must be properly disposed of immediately by either burning of or burying to a minimum depth of 25 cm. If elm wood is uninfected with DED, another option is chipping. (see 6. below) Immediate disposal of the elm wood ensures the destruction of overwintering beetle larval broods and adults and eliminates EEB breeding material.

Every municipality must designate a disposal site where elm wood may be burned or buried.

6. Elm Chipping

If an elm tree is diagnosed with DED, all wood must be burned or buried. It cannot be chipped.

Elm wood not infected with DED may be chipped into pieces not more than 5 cm. Larger elm wood chips can harbor the vector. Chips must be destroyed or stock pile for at least one year before using them in a landscape setting. Elm wood chips give off an odor that will attract the vector, therefore must only be used on trails, shrub beds and as animal bedding in areas where elm trees are not growing nearby.

7. Elm Stump Treatment

All elm stumps must be properly destroyed. A freshly cut stump with the bark still intact, gives off the same scent of a dead or dying tree. The remaining stump from a DED infected tree can also produce infected shoots. Remove the stump to a minimum depth of 10 cm below the soil line and fill the hole with soil or treat the elm tree stump in a manner satisfactory to an inspector.

8. Hazard Tree

Hazard elm tree is defined as a stressed tree that has deteriorated to the point of making it capable of supporting elm bark beetle habitation and breeding. There are many reasons why a tree may become a hazard such as environmental causes or improper pruning such as topping. If an inspector has declared an elm tree to be a hazard, the tree must be removed and properly disposed of. (see 4. and 5. above)

9. Dangerous Branch or Whole Tree

Dangerous is defined as a branch or a whole tree that could negatively affect human safety or cause property damage. In the event an elm branch is damaged making it dangerous during the elm pruning ban, corrective pruning can only be done to the dangerous branch with inspector approval. A dangerous tree can be removed at any time of the year without inspector approval. (see 4. above) A dangerous tree is only a concern to DED prevention/control if it becomes a hazard. (8. above) All elm material must be properly disposed of. (see 5. above)

To report a DED suspect elm tree or for more information, call the Society to Prevent Dutch Elm Disease (STOPDED) hotline at 1-877-837-ELMS or check out the web site at www.stopded.org

Components of a DED prevention/control management program

<u>Program Component</u>	<u>Timing</u>	<u>Responsible Agency</u>
Delivery and Administration of the Provincial DED Prevention Program	Continuous	STOPDED
Enforce <i>Plant Protection Act</i> of Canada	Continuous	Federal
Administration of the APA and PNCR	Continuous	AB Agriculture and Forestry
Enforce Alberta APA and PNCR	Continuous	Municipality, Municipal District, County
Firewood Confiscation	Continuous	Municipality, Municipal District, County
Removals - DED infected elm	Continuous	Property owner
Elm Pruning Ban	April 1 to September 30	Property owner/Arborist
Elm Bark Beetle Control	April 1 to September 30	Property owner
Elm Pruning	October 1 to March 31	Property owner/Arborist
Upgrading Disposal Site	As required	Municipality, Municipal District, County
Site-Specific Elm Inventory	Continuous	Municipality, Municipal District, County
Technical Direction & Information	Continuous	Municipality, Municipal District, County
Monitoring for Vectors	April 1 to Sept. 30	Property owner
Monitoring for DED	Mid-June to Aug. 30	Property owner
Elm Tree Replacements	April to October	Property owner

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