



***M. D. OF GREENVIEW NO. 16***  
***POLICY & PROCEDURES MANUAL***

Section:  
**AGRICULTURE**

**POLICY NUMBER: AG 17**

**POLICY TITLE: EQUIPMENT SANITATION**

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**Date Adopted by Council / Motion Number:**

**12.06.357**

**PURPOSE:**

The Municipal District of Greenview recognizes that a number of crop diseases are declared pests under the *Agricultural Pests Act* of Alberta and are a concern to agricultural operations within the Municipality.

**POLICY:**

1. The MD of Greenview will encourage producers to follow the Best Management Practices (Clubroot Disease Management) to prevent the spread of all soil borne diseases.

(Original Signed Copy on File)  
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REEVE

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CHIEF ADMINISTRATIVE OFFICER

BEST MANAGEMENT PRACTICES

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**Clubroot Disease Management**

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*Established July 2008*

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## **1. Introduction**

This document was prepared by the Working Group on Clubroot Disease of Canola with the following objectives:

- a) To promote the development of effective and achievable management practices to minimize the spread of Clubroot spores from field to field in canola producing areas
- b) To assist in educating Alberta's agriculture industry, the general public, oil and gas and other relevant industries about Clubroot disease.

This best management practice is intended to provide diligent, regulatory compliant and effective management strategies for oil, gas and other related industries.

### **1.1 Background**

Clubroot is a serious soil-borne disease of cruciferous crops (the cabbage family, including mustards, like canola) worldwide, and was first identified in Europe in the thirteenth century. This disease is a major problem in cruciferous vegetable crops in some areas of British Columbia, Quebec and Ontario. Prior to 2003, there were two previous reports of Clubroot in cole crops in Alberta. Thus, Clubroot is not a new disease in Canada or Alberta.

In 2003, Clubroot was confirmed in several canola fields near Edmonton. These were the first reports of Clubroot in canola in western Canada. As of 2007, Clubroot in canola has been confirmed in 11 municipalities in Alberta. The most heavily impacted areas are found in Edmonton and the surrounding Counties of Sturgeon, Parkland, Leduc, and Strathcona. Testing occurred in municipalities in relatively close proximity to Edmonton, with the exception of one municipality in southern Alberta.

Clubroot was added as a declared pest to Alberta's *Agricultural Pests Act* (APA) in April, 2007. The APA is the legislative authority for enforcement of control measures for declared pests in Alberta. The Minister of Alberta Agriculture and Rural Development is responsible for this Act.

Enforcement of pest control measures is the responsibility of the municipal or local authority, and Agricultural Fieldmen are responsible for enforcing pest control measures in their municipalities. Pest Inspectors have the power to enter land at reasonable hour, without permission, to inspect for Clubroot and collect samples for testing.

The owner or occupant of the land has the responsibility to take measures to prevent the establishment and spread of Clubroot.

## **2. Management Objectives**

CAPP fully supports the management objectives laid out by the Alberta Clubroot Management Committee (Feb 2008). They have advised oil and gas operators to:

- Take measures such as equipment cleaning to prevent the establishment and to minimize the spread of Clubroot spores on the land and property. This is achieved by

- minimizing or restricting movement of soil material containing resting Clubroot spores from an infected field.
- Assist in educating Alberta's oil and gas and other related industries about Clubroot disease on the land and property. **CAPP** member companies are actively accomplishing this objective through notices to our members and industry partners, presentations and development of working groups.

All **CAPP** members and industry partners are strongly encouraged to develop their own strategies to meet these management objectives.

### **3. Best Management Practice (BMP) - Equipment Cleaning Protocol**

This BMP is designed to assist operators in meeting the primary management objective of minimizing or restricting the movement of soil material containing Clubroot spores from an infected field. At this point in time the most viable method of achieving this management objective is by cleaning equipment.

#### **3.1 Equipment Cleaning Determination**

Operators are encouraged to develop internal written processes that determine whether equipment cleaning to prevent Clubroot spread is required in any given situation. For example, areas where land-use is not agricultural or where canola has not, is not, and will not be grown do not pose a risk of spreading or containing Clubroot.

In these areas, cleaning equipment for the purpose of preventing the spread of Clubroot disease of canola is not required. Equipment that only comes in contact with gravel or pavement and accesses graveled pad or plant sites does not likely pose a significant risk, so again, cleaning is not required. It is up to each operator to determine which areas and situations require cleaning and which situations and areas do not.

To meet the Alberta Clubroot Committee management objective, if there is a reasonable risk of transporting soil material that could contain Clubroot spores from a given site; equipment must be cleaned prior to exiting the location.

#### **3.2 Equipment Cleaning Description**

Once the requirement to clean equipment has been confirmed operators will be required to determine what level of equipment cleaning is appropriate for each specific situation.

- a. **Mechanical Cleaning** - Mechanical cleaning is the removal of soil material using tools such as brooms, brushes, air compressors, shovels or by hand.
- b. **Washing** - Washing is considered cleaning with water, steam or equivalent. Surfactants (soap or detergent) may or may not be used when washing with water, steam or equivalent.
- c. **Disinfecting** - Disinfecting requires the use of a substance that inhibits or destroys the reproductive ability (spores) of Clubroot disease. Disinfecting is done after mechanical cleaning or washing has been completed. Alberta Agriculture and Rural Development recommend a 1-2% bleach-water mixture; however, other disinfectants may be used. Solution is misted on mechanically cleaned and washed equipment maintaining a moist/wet interface with equipment for 15 minutes.

The type and level of cleaning required will depend on several factors including, but not limited to:

- Whether or not the site has a confirmed case of Clubroot disease
- The geographical location of the site
- The land-use of the site
- Landowner requests and prior agreed commitments
- Washing infrastructure availability
- Agriculture Fieldman / Municipally specified requirements

Cleaning activities where practical and possible should occur prior to leaving a location. Water used to wash vehicles must be contained and managed, to adhere to provincial and municipal regulations, and landowner requirements.

### **3.3 Documentation**

Operators are encouraged to develop a documentation process that will demonstrate they are meeting the primary management objective of preventing the establishment and minimizing the spread of Clubroot Disease.

The type and level of documentation needs to be determined by individual Operators, depending on the level of due diligence with which companies are comfortable. Due diligence can be considered as the level of judgment, care, prudence, and activity that an Operator could reasonably be expected to do under particular circumstances.

In general documentation components should include:

- Documented process to determine if the cleaning protocol applies
- Documented process for equipment cleaning
- Documented process for tracking equipment cleaning, including a system for storing documented equipment cleaning activities

## **4 References**

*Alberta Clubroot Management Committee, 2008.*  
*Canadian Association of Petroleum Producers (BMP)*  
*Alberta Clubroot Management Plan, Alberta Agriculture and Rural Development*