

Best Management Practices for Disinfesting Farm Machinery and Equipment to Prevent the Spread of Clubroot between Canola Fields

Basics of an Equipment Sanitation Program

- The main objective of an equipment sanitation program is to prevent the introduction and/or to reduce the spread of diseases like clubroot that decrease crop yield and quality
- It is much easier to prevent the introduction of a disease or pest to a farm or field compared to trying to eradicate or manage it after it has become established
- A sanitation program for clubroot involves three consecutive steps that increase efficacy at the expense of additional time and labor. The appropriate level of cleaning will be affected by the potential for equipment to become contaminated and the risk adversity of the producer
 - Removing soil and plant debris from equipment by scraping or knocking off clumps
 - Cleaning residual soil and debris from surfaces by pressure washing, steaming or compressed air
 - Applying a disinfectant mist to the clean surfaces (1-2% active ingredient bleach solution)
- Remember: Always Clean Before Disinfecting!

Potential for Contamination

- Various types of farm equipment and machinery may come into contact with soil, seed and/or crop debris from a clubroot-infested field and therefore become contaminated, e.g.:
 - Tillage equipment (cultivators, discers, rippers, harrows)
 - Fertilizer and pesticide applicators
 - Seeders (air seeders, drills, discers)
 - Tractors, grain trucks, pickups, cars and ATVs
 - Swathers and combines
 - Grain handling equipment (augers, dryers)
 - Forage harvesting equipment
 - Miscellaneous equipment used for soil sampling, trenching, clearing brush, etc.

Hard-to-Clean Equipment

- Some equipment will be difficult to clean because of its size, design and/or complexity, e.g.:
 - Air seeders
 - Combines
 - Multi-wheeled tractors
 - Large grain trucks (Super B's)
 - Grain handling equipment (augers, dryers)
 - Forage harvesting equipment

- Caution: Electronics may not be compatible with water, detergents and disinfectants, and compressed air may have to be used instead for cleaning
- Check with equipment manufacturers to insure that the cleaning and disinfecting procedures you plan to use will not damage sensitive equipment

Guidelines for Demonstrating Farm Machinery and Equipment for Equipment Dealers

- Avoid using farms and fields where clubroot is known or suspected to occur for demos
- Avoid working in fields, yards, etc., where the soil is wet or muddy
- Develop cleaning protocols for specific pieces of equipment in advance of demonstrations
- Clean and disinfect equipment, vehicle tires, boots, etc., before leaving the field and/or farm
- Demonstrate equipment on only one farm in the area
- Enter fields with a minimum amount of equipment
- Park personal vehicles and display machines off of fields

Prepared by: Ron Howard, Plant Pathology Research Scientist, Alberta Agriculture and Rural Development, Crop Diversification Centre South, 301 Horticultural Station Road East, Brooks, Alberta T1R 1E6.

Direct Inquires to: duke@gov.ab.ca