

# Suggested Field Entry Protocol for Clubroot or Clubroot Suspect Fields

## **Purpose:**

The purpose of this document is to ensure individuals who are requested or required to enter fields that contain or may contain clubroot are following proper stewardship protocols to minimize the spread of this disease to uninfected fields.

## **Background:**

Clubroot is a serious soil-borne disease of crucifer crops in many parts of the world. The crucifer family includes vegetable crops like cabbage, broccoli, and cauliflower as well as field crops such as canola and mustard. Clubroot is especially problematic because the pathogen persists in soil for many years, and cannot be controlled with crop protection products currently registered in Canada. Clubroot has the potential to be a significant threat to canola production in many parts of Canada. The exact amount of infected soil required to initiate infection in an uninfected field is not defined, so to prevent infection, precautions must be taken to minimize the transfer of soil and to disinfect the soil which might be transferred. A complete description of the disease is available at [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex8593?opendocument](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex8593?opendocument)

## **Proposed Actions:**

- All precautions are aimed at limiting the amount of soil transfer from any field by an individual, their tools, implements or vehicles.
- Upon meeting the landowner/farmer before or at the field, make them aware of the steps that are being undertaken to limit the spread of clubroot infection. In the municipalities with known incidents of infection, you would follow the following steps automatically, as a matter of practice.
- Whenever possible, field visits or inspections should be done on foot, to reduce the time required for vehicle cleaning and reduce the spread of soil by the vehicle.
- Vehicles should always park whenever possible, on the municipal road or in the approach. Previous clubroot field surveys have found that the most likely infected part of a field is at the field entry point, and to the right side of that entry point.
- Where possible, plastic disposable booties should be worn over existing footwear. On exit from the field, these booties should be put into a sealed bag, and carried in the vehicle until they can be disposed of in domestic garbage or burned. These booties should not be reused.
- If rubber boots are worn without booties, they will need to be scraped clean, washed (washing can be done in a 20L pail or a Rubbermaid type container with lid) and disinfected before the next visit.
- One should wear coveralls over their street clothes to reduce chances of soil/mud sticking to your regular clothes. Disposable coveralls can be handled similarly to the disposable booties above, whereas regular coveralls (if they contain soil/or mud) should be laundered between field visits.
- When doing a field inspection with a grower, if required to travel in a vehicle, it is preferable to travel in the grower's vehicle, if at all possible.
- Should the individual have driven their vehicle through the field, and if likely they may have picked up soil on the vehicle, it should be washed at the nearest carwash before visiting another field. Washing must include tires, wheels and

undercarriage, especially wheel wells and anywhere else mud may have been stuck to the vehicle. The vehicle should be driven at a moderate speed to reduce the amount of soil or mud discharged from the vehicle. Vehicles should be equipped with appropriate mud/splash guards to reduce the amount of mud thrown onto other parts of the vehicle body and undercarriage and therefore reduce the amount of time/expense required to properly clean soil/mud from the vehicle.

- If a trowel, spade, soil sampler or other tool is used for digging or otherwise disturbing soil, these tools must be washed or disinfected prior to going to the next field. It is suggested that a solution of 1-2% bleach and water (e.g. 1 part 5% household bleach per 3-5 parts water) be carried in a covered plastic pail or container in the back of the vehicle, and the tools kept submerged in this solution. An alternative would be to carry a spray bottle containing this solution that could be then sprayed on the tools after cleaning. It should be remembered that chunks of dirt or mud will not be disinfected by this solution and therefore these should be removed prior to spraying with the bleach solution.
- Any field equipment that may have been in contact with soil/or mud should have any loose and appreciable soil scraped and swept off the equipment and pressure washed, if possible, at the exit from the field. Alternatively, the equipment should be pressure washed at the nearest car wash. Particular care should be given to any parts of the equipment that are in direct contact with the soil (e.g. tillage tools, seeding openers, tires, harrows, packers, etc.).
- Hands (and any other body parts) that may be covered with soil/or mud should be washed/cleaned and a hand sanitizer used before leaving the field.
- Try to refrain from performing field walks or visits when the field is muddy, whenever possible.
- The prevention steps followed should be documented at the end of every field visit/inspection in case there are any subsequent questions or concerns.