Clubroot best management practices

The key to limiting the spread and severity of clubroot is to implement a disease management plan early, when the pathogen spore levels in the soil are low and visible symptoms are not yet present.

Further clubroot management strategies are advisable when spore levels are high or when you feel a higher level of caution is warranted.

Preventing the spread of clubroot in soil

- In fields where clubroot has not been confirmed: rough clean of equipment to remove all soil before leaving each field.
- In fields where clubroot has been confirmed: completely remove all soil and sanitize equipment before leaving each field.
- Do fieldwork in clubroot-infested fields last.
- Ensure clubroot-positive fields have a separate entrance and exit, with a grass patch at the exit for equipment cleaning.

Crop rotation and weed control

- Use a minimum three-year rotation.
- Control canola volunteers and clubroot-susceptible weeds.

Variety selection

- Use clubroot-resistant varieties in extended crop rotations.

Monitoring

- Monitor all canola crops, including clubroot-resistant varieties, for visible symptoms.
- Conduct clubroot soil tests to monitor spore level changes. Soil should be collected from the same location and at the same time of year.

Containing a clubroot area

- Seed the clubroot area to a sod-forming grass.
- If the patch is small, consider pulling and disposing of infected plants.
- Treat the clubroot area with lime to increase pH.

For more information

- Call the Agriculture Knowledge Centre's general inquiry line toll-free at 1-866-457-2377.
- Contact Miki Miheguli with SaskCanola at 1-306-975-0273.
- Visit saskcanola.com.

Thank you for agreeing to participate in the clubroot soil testing program. As you have recognized, this program has value for you as an individual producer, but it also provides value for your fellow Saskatchewan Canola producers. SaskCanola will cover the cost of this test.

Clubroot Soil Test

saskatchewan.ca/agriculture

SaskCanola

Saskatchewan

Clubroot soil testing can be used to detect low levels of the clubroot pathogen. Early detection and proactive clubroot management strategies can be used to keep spore levels low and minimize yield losses.

When to sample

Soil samples should be collected in late summer or around swathing. This is when clubroot galls will be degrading and releasing clubroot spores back into the soil.

Taking the soil sample

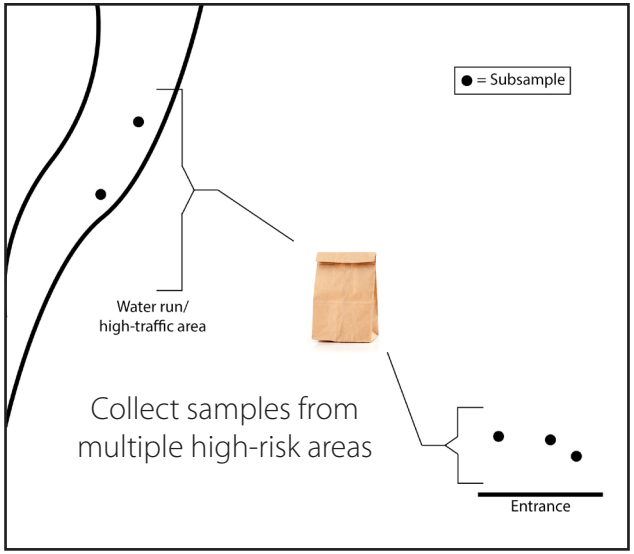
1. Remove the crop residue from the soil surface.
2. Collect a small amount (60 to 80 mL or 1/4 to 1/3 cup) of soil from the top five to 10 cm (two to four inches).
3. Each bag should contain soil from five areas of the field that are at high risk for clubroot (see "Where to sample").
4. Fill the sampling bag to the line marked on the bag.
5. The soil must be dry when it is submitted. Moist soil needs to be dried in a place where it is safe from contamination.

Where to sample

It is important to collect soil samples from the areas of the field that are at high risk for clubroot; otherwise, fields that have clubroot could be missed causing the disease to spread undetected. The best area in the field to sample will depend on whether clubroot has been confirmed in your region.

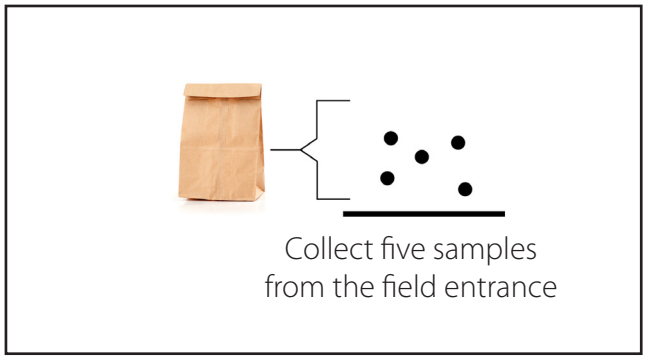
A. Areas where clubroot has been confirmed

- Identify multiple areas of your field considered to be at high risk for clubroot and collect two to three subsamples from each.
- Areas at high risk for clubroot include field entrances, high-traffic areas, natural waterways and low areas, particularly those near a field entrance. All samples should be taken at least 20 m from the field edge.



B. Areas where clubroot has not been confirmed

- Collect five soil samples from the field entrance(s) at least 20 m from the field edge.



How to submit the sample

- Ensure that the sample bag label is filled out completely.
- Drop the sample bag off at your local Ministry of Agriculture regional office or Discovery Seed Labs.

How you will receive your results

- Sample results will be available in early winter.
- When the testing is completed, ministry staff will contact you via email or phone to share the testing results.
- Results will be kept confidential and will only be shared with the rural municipality if they have enacted a clubroot bylaw.