Prevent Clubroot, Minimize Risk

What is clubroot?

Clubroot disease is caused by soil-borne spores of the pathogen ***Plasmodiophora brassicae***. These spores infect canola roots, restricting water and nutrient uptake and limiting plant growth and yield.

Spores move where soil moves.

How could I be affected?

Farmers can unknowingly have clubroot in their fields. Spores spread easily and cause symptoms when environmental conditions are conducive, susceptible hosts are present, and spore concentrations are high enough.

As spore concentration increases, so does clubroot risk:

- Increased risk to yield
- Longer (rotational) break from canola required to reduce spores to manageable levels
- Higher risk of new pathotypes being found in a field
- Fewer management options to control the disease

What can I do?

Keep spores 'low' and 'local' by growing **clubroot resistance (CR)** as part of a proactive, integrated prevention and management plan for all canola acres.

Keep spores low

Crop rotation: Maintain a minimum 2-year break between canola (1-in-3 rotation).

Scout: Examine roots in every canola field during late summer/fall. Pay special attention to high-traffic and high-moisture areas. Soil testing may help identify spores before physical symptoms appear.

Grow CR: Early infestations can be missed for years while susceptible hosts multiply spores to catastrophic levels. Clubroot resistance (CR) should be grown on all canola acres as part of an integrated management strategy.

Control brassica weeds in all crops: Host weeds (like volunteer canola, stinkweed, flixweed, shepherd's purse and mustards) should be controlled early to minimize gall formation and resting spore release.

Keep spores local

Biosecurity: Commit to a biosecurity plan to prevent the introduction and spread of spores on contaminated inputs and equipment. Communicate sanitation expectations with all relevant parties before field entry.

Reduce tillage: Minimize soil (and spore) movement within and between fields.

Patch management to keep spores low and local:

If you find clubroot, manage the patches separately from the rest of the field to reduce spore concentration and prevent spores from spreading.

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Visit **clubroot.ca** to learn more.