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SECOND CASE OF RESISTANCE-BREAKING CLUBROOT PATHOTYPE IDENTIFIED IN MANITOBA

Manitoba Agriculture and Resource Development is reporting a second case of a previously identified strain of clubroot (*Plasmodiophora brassicae*) on canola. It was positively identified from samples collected in July 2020, in the Rural Municipality of Louise.

The strain of clubroot is identified as pathotype 3A, using the designation of the Canadian Clubroot Differential Set (2018) (Strelkov Plant Pathology Lab, University of Alberta).

Pathotype 3A is able to overcome some first-generation sources of genetic resistance in commercial canola cultivars. Canola varieties usually rated “resistant” (or “R”) will not be effective in preventing clubroot infection against this pathotype strain. Traditionally, R-rated varieties are tested against pathotypes 2F, 3H, 5I, 6M, and 8N of the Canadian Clubroot Differential set, and not labelled as effective against the resistance-breaking pathotypes 3A and 5X.

Genetic resistance to pathotype 3A can be found in a small number of commercially available canola varieties specifically labelled for resistance to 3A. Long-term sustainability of canola production requires adopting effective crop rotation, rotating sources of genetic resistance, and implementing good farm biosecurity to suppress clubroot infection.

Up-to-date information on clubroot distribution in Manitoba can be found at www.gov.mb.ca/agriculture/crops/plant-diseases/clubroot-distribution-in-manitoba.html. If you are concerned about clubroot on your farm, the Plant Surveillance Initiative Lab (PSI Lab), funded by the Manitoba Canola Growers Association in Winnipeg can test soil samples and provide information on clubroot presence. See <http://www.mbpestlab.ca/> for more details.

For more information on clubroot of canola and crop biosecurity measures, call Manitoba Agriculture and Resource Development at 1-844-769-6224 (toll-free), or visit:

- www.gov.mb.ca/agriculture/crops/plant-diseases/clubroot-of-canola.html;
- www.manitoba.ca/agriculture/crops/biosecurity.html;
- www.clubroot.ca (Canola Council of Canada); or
- www.canolagrowers.com (Manitoba Canola Growers)