



Protecting Canola Production by Making Clubroot a Reportable Disease

Issue

Clubroot is a serious crop disease affecting Canola production that significantly reduces production.

Background

In 2013, 68,430 jobs in Alberta were related to the economic benefits of Canola production in the province of Alberta. The report prepared by LMC International, entitled “The Economic Impact of Canola on the Canadian Economy¹” reported that canola’s contribution to the Canadian economy surpassed \$19.3 billion a year – with more than \$6 billion per year generated by the canola industry in the province of Alberta. The report noted that the contribution to the national economy had doubled in less than a decade and that wages linked to the industry had tripled during the same time period.

Clubroot is a serious soil-borne disease that attacks the roots of infected plants resulting in wilting, stunting and yellowing to premature ripening, seed shriveling thus reducing yield and quality, with estimated losses tied to the level of infestation. Infestations of 10 to 20 percent lead to a 5 to 10 percent yield loss; with losses as high as 50% to 80% for high infestations. Estimated loss is half of the percentage of infected stems. Clubroot is spread through soil infested with resting spores. Swedish researchers have identified the spores as being extremely long lived and may survive in soil for up to 20 years with a half-life of 4 years. Clubroot surveys in Alberta have found that most new infestations begin at or near the field access, which indicates that contaminated equipment is the predominant spread mechanism. Wet conditions increase the percentage of spores. Prevention strategies include increasing crop rotations for Canola, cleaning and disinfecting equipment.²

By the end of 2014, clubroot was present in 30 municipalities in Alberta and is rapidly spreading. Clubroot resistant canola varieties exist, although they typically yield less than non-resistant varieties and seed costs may be higher. In 2014 the first Alberta case of a pathogen shift to overcome current variety resistance was confirmed. A second resistant variety is being introduced in Alberta this spring.

In 2007, Clubroot was added as a pest under the Agricultural Pests Act which authorizes municipalities to enter on land with suspected clubroot infestation and to restrict canola seeding to those fields. Most municipalities have inspection policies limited to visual observation of suspected fields and the right to

¹ Alberta Canola Producers Commission

² Alberta Agriculture and Forestry: Frequently asked questions [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/faq7389](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/faq7389)

enter on those lands to confirm clubroot infestation, and to restrict the landowner's rights to plant Canola on those fields, for example, restrictions on seeding for 4 years or longer.

Current legislation does not address the risks associated with third party access on private land where the access is authorized pursuant to government public interest powers, for example, oil and gas; pipelines; transmission lines; public road construction and utilities. For example, soil testing done by electrical transmission operators, utility operators and oil and gas companies is not reportable either to the landowner or to any government authority. As such, operators are not required to institute testing, nor are they required to implement strategies to reduce the spread of clubroot. The lack of legislation leaves landowners at risk with limited remedies to mitigate their losses where clubroot is introduced and spread on their land, oftentimes without their authorization to access the land. The following example illustrates the significance of the issue for Alberta agriculture, in 2012 a utility operator soil tested access roads for clubroot in Central Alberta. Given that there were no reporting requirements or mandated processes, those results were kept internally and it was left to the operator to choose to implement or not implement strategies to reduce the spread of Clubroot during construction. In 2014, the landowner not knowing of the positive soil test results, planted non-resistant Canola which was determined by the municipality to have been infested with Clubroot. The municipality issued restrictions on seeding rotations pursuant to the authority under the Agricultural Pests Act against the Landowner. The municipality has no authority or legislated power to mandate or restrict access to the operator or other third party users of the access road to prevent the spread of Clubroot on adjoining properties.

The Alberta Chambers of Commerce recommends the Government of Alberta:

1. Amend *the Agricultural Pests Act* to make Clubroot a reportable disease.
2. Review current legislation and policies for surface rights to take into account the prevention and mitigation of clubroot for oil and gas exploration, transmission lines, pipelines and other utilities.