



# Is Clubroot Really Important?



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## What are we doing to be proactive?

Clubroot research has been supported federally (\$4.6 million through Growing Forward), and provincially through the Agriculture Development Fund (\$201,000) and SaskCanola (\$450,000). The Canola Council of Canada is co-ordinating all research and communication efforts. Get your clubroot facts.

### FOR MORE INFORMATION

- Visit [www.clubroot.ca](http://www.clubroot.ca); or
- Visit [www.agriculture.gov.sk.ca](http://www.agriculture.gov.sk.ca) and search the word “clubroot”.

*Plasmodiophora brassicae*, a pathogen causing clubroot, was identified more than 130 years ago. But chances are you didn't hear much about clubroot until it was discovered on Alberta canola in 2003.

Since then, it seems like everyone is concerned about clubroot: reports and warnings of the disease have made countless headlines in the media, and the pathogen was declared a pest by both Saskatchewan and Alberta. And yet we still haven't seen

symptoms of the disease in this province. You may be starting to wonder, “Is clubroot really worth the fuss?”

The short answer is “yes!” Clubroot is of particular concern where it already occurs because the disease can cause devastating yield losses in cruciferous crops, which include canola, mustard and camelina. Resting spores of the pathogen can survive in the soil for many years and there are limited options to control it.

In areas where it does not occur (yet), clubroot is still a concern as the disease can spread through the movement of soil contaminated with resting spores. Clubroot research will help us learn more about the disease and investigate possible management strategies. Risk levels will vary with agronomy and weather, but it is important to understand that there is a risk for clubroot in Saskatchewan, and prevention is our best choice.

## Clubroot Testing Results

A total of 90 soil samples (30 in 2008 and 60 in 2009) have been collected from across the province for clubroot testing, with only one positive test for clubroot from west-central Saskatchewan in 2008, and no samples testing positive in 2009.

The positive sample tells us that it is possible that the pathogen is already present in Saskatchewan, despite the absence of symptoms in the field. This season, 75 more samples will be collected and tested for clubroot, and more than 100 fields will be surveyed for canola diseases and clubroot symptoms.

		Level of Risk for Clubroot		
		Low	→	High
Importance of Risk Factor ↑ Very Important ↑ Important	Good crop rotation with canola no more than once every 4 years.	Sometimes grow canola every 2 to 3 years.	Have grown canola 2 or more years in a row.	
	Sanitation procedures are regularly followed.	Some sanitation procedures in place.	No sanitation procedures.	
	You scout crops regularly for disease and have not seen clubroot symptoms.	You sometimes scout crops and investigate unusual symptoms.	You rarely scout crops or investigate unusual symptoms.	
	Regardless of soil conditions, clubroot risk will be lowered with sanitation and good crop rotations.	Dry years may reduce disease. High soil pH will not prevent clubroot.	Wet years may increase disease. Low soil pH may increase clubroot.	



Clubroot gall on canola in Alberta.

