

Clubroot Management Agreement: Non-irrigated Land

This Clubroot Management Agreement template can be used when developing a clubroot management plan for clubroot-infested fields. A proactive management plan will help to reduce or keep pathogen levels low and minimize yield losses due to clubroot.

For each section below, please check the box for all management strategies that will be used. The management strategies identified as **Req** are **minimum requirements** that need to be included. Additional management strategies are listed and should be considered whenever possible.

For more information on clubroot control strategies, please refer to [The Saskatchewan Clubroot Management Plan](#) on the Saskatchewan Ministry of Agriculture's [website](#).

Field Location and Information:

Date:				
Landowner's name:				
Renter's name (if different from above):				
Agrologist's name:				
Legal land location of clubroot infested fields that will be managed according to this plan:	Symptoms visible?		DNA-based soil test confirmed pathogen?	
	Yes	No	Yes	No

Part 1: Crop Rotation

Crop rotation will reduce pathogen (spore) levels and selection pressure on the clubroot pathogen population to overcome resistance in the canola variety. Longer rotations are encouraged in fields with high disease severity.

Indicate which crop rotation interval will be followed from the list below.

Three-year rotation (two-year break) – **Req**

Four-year rotation (three-year break)

Longer than a four-year rotation

Perennial forage crop for more than two years

Other (please indicate: _____)

Part 2: Variety Selection, Weed Control and Small Patch Management

Please select all strategies that will be used:

Use of only clubroot-resistant varieties in fields with clubroot symptoms or where the clubroot pathogen has been detected – **Req**

Use of clubroot-resistant varieties in all canola fields.

Control of volunteer crops including: canola, camelina, mustard or other clubroot hosts – **Req**

Control of cruciferous weeds throughout the rotations – **Req**

- Weed species to be controlled include but are not limited to: stinkweed, shepherd's purse, wild mustard, flixweed and tansy mustard.
- Uprooting, removing and safe disposal of all clubroot-infected plants (small patch)
- Liming of soil in clubroot-infested area to increase pH to 7.5 (small patch)
- Use of DNA-based soil testing to monitor spore levels prior to seeding a susceptible host crop

Part 3: Reducing Soil Movement

Please indicate how you will minimize the spread of clubroot and movement of clubroot-infested soil (**Req**). Select the strategies that will be used from the following list:

- Grass the field entry to reduce spore levels or as an area for cleaning equipment
- Create a separate field exit away from existing field entrance and/or known clubroot-infested areas
- Equipment cleaning and sanitation practices (select from the following list):
 - Remove large clumps of soil before leaving the field
 - Remove as much soil as possible using a brush or compressed air before leaving the field
 - Visit clubroot-infested fields last and fully clean equipment afterward
 - Wash and sanitize equipment with bleach when possible
 - Require others working on the clubroot-infested land to implement a biosecurity protocol (protocols can include vehicle cleaning, use of disposable boot covers etc.)
- Use of soil conservation practices to reduce soil spread – **Req**
 - Zero tillage
 - Other (please describe: _____)
 - Example: reduced tillage – spring tillage only when needed for specific crop

Part 4: Disclosure of Clubroot Infestation and Biosecurity Management

- Notification to all occupants, renters and easement holders who have access to the land (including when the field approach is shared with another renter/landowner) – **Req**
- Notification and disclosure to contracted and/or other parties who have access to the land that clubroot is present – **Req**
 - (Example: Custom sprayers, utility companies, agronomists, etc.)
- Disclosure that clubroot is present when the land is sold or rented to other parties – **Req**
- I agree that the RM may disclose to adjacent landowners that clubroot has been found in this field(s). I am willing to provide my consent through a signed letter.

Part 5: Clubroot Scouting and Monitoring

- Continued scouting and soil testing in fields where clubroot or the clubroot pathogen has been detected to monitor pathogen (spore) levels and visible symptoms on plants.
- Continued scouting in all other fields rented or owned by the renter/landowner.

Renter's Signature: _____ Date: _____

Landowner's Signature: _____ Date: _____

Agrologist's Signature: _____ Date: _____

Pest Control Officer's Signature: _____ Date: _____