



Clubroot Factsheet

Series 1 for farms

sheet 2

Fact: CLUBROOT MANAGEMENT IS BASED ON UNDERSTANDING DISEASE RISK

The first step towards developing an effective integrated control strategy is accurately estimating the disease risk.

Disease risk can be estimated using farm records or tested using a molecular diagnostic test;

Farm Records Checklist:

- Have you ever seen clubroot on your property?
- How large is the area affected?
- Determine if the risk is high, medium or low.



Use this table to estimate overall disease risk;

		LOW RISK	MEDIUM RISK	HIGH RISK
1	Severity of last observed clubroot infection	Mild	Moderate	Severe
2	Time since last observed clubroot infection.	More than 5 years	2-5 years	0-2 years
3	Intended sowing time for brassicas.	May-Aug	March/April and Sept/Oct	Nov-Feb
4	Have brassica weeds been seen on the site since last infection?	Never	Infrequently	Often
5	Intended crop	Non-brassica	Broccoli, Brussel sprouts, cabbage, other Asian veg brassica	Cauliflower, Chinese cabbage
6	Soil pH	7-8	6-7	Less than 6
7	Source of planting material	Cell grown transplants - reputable nursery	Seed bed on farm	Direct seeded onto site
8	Variety	Tolerant/resistant	Susceptible	Highly susceptible
9	Drainage	Excellent	Fair	Poor
10	Soil type	Sand	Loam	Clay

It is important to try to quantify clubroot as disease severity (yield loss) is related to inoculum concentration.

Molecular diagnosis:

- Early and accurate diagnosis is vital to making informed disease management decisions to prevent or contain new clubroot outbreaks.
- A technique that extracts DNA of the clubroot pathogen from a soil or water sample has been developed to quantify the amount of *P. brassicae* in a sample.
- This technique is rapid and sensitive but it is also expensive and requires sophisticated equipment and diagnosis in a laboratory.
- A more user-friendly commercial diagnostic kit that is sensitive, inexpensive and rapid is being developed for on site testing.

Disease Detection and Prediction

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