



# Clubroot Factsheet

Series 1 for farms

sheet 1

## Integrated Control of Clubroot - Introduction

**Fact:** OPTIONS ARE AVAILABLE THAT WILL PREVENT OR CONTROL CLUBROOT

'Integrated control' is the implementation of a combination of methods that are cost effective and provide effective disease control.

### Recognising clubroot:

The first symptom of clubroot is usually wilting. Severely diseased plants are generally stunted and foliage colour may change. Root galling indicates that infection has occurred.



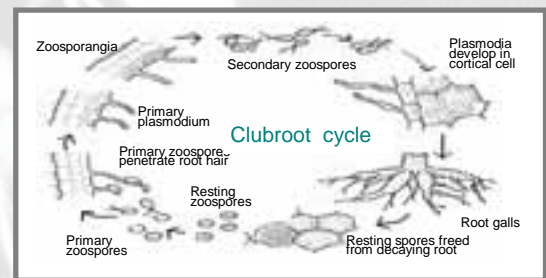
### Infection:

Decaying root galls release many resting spores into the soil which are potentially infective for up to twenty years. Infection can occur on the plant root at any growth stage. Clubroot is mainly a summer disease in Australia.



### Infection depends on:

- A source of *P. brassicae* spores.
- High soil moisture.
- Acidic soil, pH less than 7.
- Warm conditions (20-25°C).



*Key elements in the development of an integrated control strategy include:*

### A. Estimating disease risk; (see factsheet 2)

The first step in developing an integrated control strategy is to know the disease risk of each site. This can be estimated from farm records or by using a molecular diagnostic test. When the disease risk has been estimated, a management strategy can be tailored to prevent or manage clubroot using the methods listed below and detailed in this series of factsheets.

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