# **FACT SHEET:** Diseases of Ginger

by: Plant Protection Section Koronivia Research Sation



### WHAT ARE SOME OF THE SYMPTOMS OF THE DISEASE?



Yellowing on leaves & collapse of affected shoots



Water soaked lesions on rhizomes near base of affected shoots

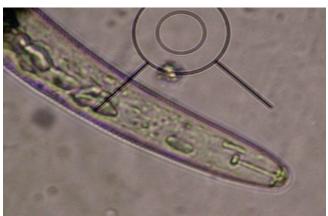


Sunken lesions & blacken tissue on rhizome surface

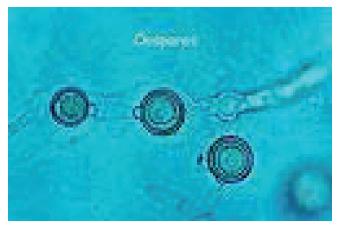
### WHAT CAUSES THE DISEASE?



Nematodes



Nematodes



Fungus – Pythium spp

### HOW BAD ARE THE DISEASES?



Cannot harvest all the plants due to yellowing of leaves and rhizome rot



Will not be able to sell all the ginger due to high number of rejects left in the field

## HOW CAN WE MANAGE OR CONTROL THESE DISEASES?

### **CLEAN SEEDS**

- Ensure you plant only clean, disease free seeds
  from a disease-free farm.
- Ensure area to be established as a seed farm is free of major soil-borne pathogens and is "quarantined".
- Hot-water treat seed for 51°C for 10 min. This will eliminate Radopholus similis and Pythium spp. from seed.
- After hot water dip, dip seeds in fungicide (Sundomil), 3.5g/Liter of water for 5 minute.
- Ensure the seeds are dry before planting.
  Spread seeds out to dry and wait for 2 weeks, to remove damaged rhizomes before planting.

### WATER MANAGEMENT

- Improve drainage in and around the plots.
  Avoid waterlogged areas in the field and from moving into adjacent blocks or rows.
- Organic Amendments and gypsum helps soil

- structure and improve water infiltration rates.
- Practice good farm hygiene. Don't move mud on feet, implements and vehicles from one block or farm to next without washing.

### **CULTURAL PRACTICE**

- The ginger-taro-cassava-fallow rotation is good for controlling both Pythium and Nematodes. The longer the break, the better.
- Organic amendments improve soil health and create more suppressive soils.
- Remove volunteer ginger and control weeds to reduce pathogen pressure and avoid competition with ginger
- Follow a ginger nutrition program and get regular soil tests.
- A healthy plant is less susceptible to pathogens!

### CHEMICAL CONTROL

- As soon as disease symptoms appear, remove dead plant and surrounding soil, place in empty bags and dispose of away from the plots. This reduces the pathogen population
- Use Sundomil as a soil applicant and FoliaR
  Fos as foliage applicant

