

A photograph of a ginger field with rows of green plants growing in dark soil. A white rectangular box is overlaid on the upper half of the image, containing the main title text.

DISEASES OF FIELD AND HORTICULTURAL CROPS – I

SESSION 27 GINGER DISEASES

Important Diseases

❖ Major Diseases

1. Soft rot - *Pythium spp.*, *Rhizoctonia spp.*

❖ Minor Diseases

1. Bacterial wilt - *Ralstonia solanaceum*
2. Leaf spot - *Phyllosticta zingiberi*

Soft rot

❖ *Pythium spp.*, *Rhizoctonia spp.*

❖ Symptoms

1. Sprouts fail to grow resulting in **pre-emergence damping off**.
2. Leaves turn yellow along the margins
3. **Leaves dry up and start withering** from younger to older leaves
4. Dead leaves ultimately drop off and hang down along the stem
5. **On stem, a translucent brown lesions** develop at collar region and later becomes water soaked and soft,
6. **Soft rot** extends from the collar region to **rhizomes** which first become discoloured and gradually decompose, forming a watery mass
7. **Roots** arising from affected rhizome undergo **rotting** and softening.
8. **Rotting** is also noticed **during storage**.



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Etiology

- ❖ Hyphae - Coenocytic
- ❖ Asexual spores – Zoospores in sporangia
- ❖ Sexual spores - Oospores



❖ Disease cycle

❖ Primary infection

– Rhizomes/ Crop debris/Soil

❖ Secondary infection

– Zoospores/ Sporangia in
irrigation water

❖ Favourable Conditions

✓ Close planting

✓ Frequent rains

✓ Water logging

✓ Monocropping

❖ Management

1. Crop rotation for 3-5 years with non-host crops
2. Avoid water stagnation
3. Collect the seed from disease free plot
4. Rhizome treatment with [Metalaxyl@0.2](#)
5. Drench the field with COC@0.3% or Metalaxyl@0.2%

Leaf spot

❖ *Phyllosticta zingiberi*



Bacterial wilt

❖ *Ralstonia solanacearum*

