



DISEASE OF FIELD AND HORTICULTURAL CROPS – I

SESSION 16 CASTOR DISEASES

Important Diseases

❖ Major Diseases

1. Phytophthora blight - *Phytophthora parasitica*

❖ Minor Diseases

1. Rust - *Melampsora ricini*
2. Wilt - *Fusarium oxysporum fsp ricini*
3. Grey mold - *Botrytis cineria*
4. Leaf spot - *Cercospora ricinicola*

Seedling Blight

❖ *Phytophthora parasitica*

Symptoms

1. The disease appears circular, dull green patch on both the surface of the cotyledon leaves.
2. It later spreads and causes rotting.
3. The infection moves to stem and causes withering and death of seedling.
4. In mature plants, the infection initially appears on the young leaves and spreads to petiole and stem causing black discoloration and severe defoliation

Spot on older leaves



Leaf blighting



Dead seedling

Etiology

- ❖ Coenocytic mycelium
- ❖ Sporangia , Chlamydozoospores, Oospores

❖ Disease cycle

- ❖ **Primary infection** – Chlamydozoospores, Oospores
- ❖ **Secondary infection** – Zoospores and Sporangia

❖ Favourable Conditions

- ✓ Continuous rainy weather.
- ✓ Low temperature (20-25°C).
- ✓ Low lying and ill drained soils.

❖ Management

1. Field sanitation
2. Ensure Drainage
3. Remove and destroy infected plant residues.
4. Avoid low-lying and ill drained fields for sowing.
5. Treat the seeds with thiram or captan at 4g/kg
6. Foliar spray Bordeaux mixture 1% or Metalaxyl plus mancozeb @ 0.2%

Rust

❖ *Melampsora ricini*



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Wilt

❖ *Fusarium oxysporum fsp ricini*



Grey mold

❖ *Botrytis cinerea*



Cercospora leaf spot

❖ *Cercospora ricinicola*

