



DISEASE OF FIELD AND HORTICULTURAL CROPS – II

SESSION 26 & 27
TURMERIC & CORIANDER DISEASES

Important Diseases of Turmeric

1. Leaf Blotch - *Taphrina maculans*
2. Leaf spot - *Colletotrichum capsici*
3. Rhizome rot - *Pythium graminicolum*

Leaf Blotch

❖ *Taphrina maculans*

❖ Symptoms

- Appearance of large number of spots on both surfaces of leaf
- **Spots** first appear as pale yellow discolouration which gradually turn to **reddish brown**
- Spots lie between leaf veins and are rectangular, **coalesce to form big irregular patches**

Black lesions on leaves



Black lesions on leaves



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❖ Disease Cycle

- ❖ Primary inoculum – Crop debris
- ❖ Secondary Inoculum – Wind borne conidia

❖ Management

- Affected parts should be collected and destroyed
- Shade and extensive irrigation should be avoided.
- Spray Mancozeb @ 0.3% or propiconazole @0.1%

Leaf spot

❖ *Colletotrichum capsici*

❖ Symptoms

- On leaves, **elliptic to oblong spots** of different sizes appear on both the surfaces,
- Spots gradually increase in size and attain a length of 4-5cm and breadth of 2-3cm
- Mature spots have **grayish center with dark brown** margins surrounded by a **yellow halo**
- Central portion of the spot becomes thin and papery
- Several **spots coalesce to form irregular necrotic patches**



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❖ Disease Cycle

- ❖ Primary inoculum - Crop debris
- ❖ Secondary spread - Conidia

❖ Management

- Tolerant varieties: **TS-2, TS-4, TS-9, TS-88**
- Remove and destroy infected plant debris
- Avoid excess shading
- Treat rhizomes with COC @ 0.3% solution
- Spray Carbendazim @ 0.1% or Mancozeb @ 0.25%.

Rhizome Rot

❖ *Pythium spp.*



Stem Gall of Coriander

❖ *Protomyces macrosporus*

❖ Symptoms

1. Symptoms of the disease appear as **gall/tumor on the stems, peduncles and inflorescence.**
2. **Galls are glossy and soft at the time** of development, but become **hard and rough** in the older stems.
3. Galls coalesce and become longer (up to 5 cm in length).
4. The infected **plants show deformation** in the fruits and severe infection **kills the whole plant.**
5. The disease causes heavy loss in the annual yield of coriander.



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❖ Disease Cycle

- ❖ Primary inoculum - Seeds/ Infected crop debris
- ❖ Secondary Spread - Conidia

❖ Management

1. Disease free seeds
2. Collect and destroy infected plant debris
3. Foliar sprays with Carbendazim @ 0.1 or Mancozeb @ 0.3%