



**FACULTY OF AGRICULTURAL SCIENCES AND ALLIED INDUSTRIES**

**DISEASES OF FIELD&HORTICULTURAL CROPS&  
Management 1 PPA - 312**

## LECTURE 14

### NAME OF DISEASE – COFFEE RUST/ ORIENTAL LEAF DISEASE

#### Pathogen- *Hemileia vastatrix*

- Severe epidemics in Sri Lanka in 1868

#### Symptoms

- The fungus confines itself to the leaf blade, rarely occurs on the berries
- Small, pale yellow spots develop on upper surface of the leaves usually around margins
- Later masses of orange uredospores appear on the under surface
- The fungus sporulates through the stomata rather than breaking through the epidermis, so it does not form the pustules typical of many rusts
- The powdery lesions on underside of leaves can be orange-yellow to red-orange in color
- The centers of the spots eventually dry and turn brown, while the margins of the lesions continue to expand and produce uredospores
- Infection slowly progresses upward in the bush and host tissue becomes dark brown, then black and dries up
- The infected leaves drop prematurely, leaving long expanses of twigs devoid of leaves
- The damage to the plant is severe when it affects the young flush, causing defoliation and considerable reduction in yield



**Survival and spread**

- **Primary:** Mycelium or uredospores in infected leaves
- **Secondary:** Uredospores dispersed by wind and water
- **Pycnial and aecial stages are not known**

**Favourable conditions**

- Uredospores germinate only in free moisture
- Thick canopy of shade prevents the ready spread of the spores and thus secondary spread of the disease
- Rainy weather and heavy dew
- Severe from July to Dec

**Management**

- Collect diseased leaves and destroy
- Spray the bushes once with
- Bordeaux mixture 0.5% or Copper oxychloride 0.25% 2-3 times during monsoon
- Spray Triadimefon 0.05%