

## Disease of Coconut

### 1. Bud rot -Phytophthora palmivora



#### Symptoms

- The first indication of the disease is seen on the central shoot of the tree.
- The heart leaf shows discoloration which becomes brown instead of yellowish brown.
- The entire base of the crown may be rotten emitting a foul smell.

#### Favorable Conditions

- High rainfall, high atmospheric humidity (above 90 per cent), low temperature (18-20°C) and wounds caused by tapper and Rhinoceros beetles.

#### Management

- When disease is detected in early stage, remove the infected tissue thoroughly by cutting the infected spindle along with two leaves surrounding it and protect the cut portion with Bordeaux paste.

### 2. Basal Stem Rot (Thanjavur wilt / Bole rot) Ganoderma lucidum





### Symptoms

- The most usual symptoms are yellowing, withering and drooping of the outer fronds which remain hanging around the trunk for several months before shedding.
- The younger leaves remain green for sometime and later turn yellowish brown.
- The wilting plants also show bleeding patches near the base of the trunk.
- The decay of the basal portion occurs slowly and tree succumbs to the diseases in 2-3 years.

### Favorable Conditions

- Trees grown in sandy loam and sandy soils, water logging during severe rains, low soil moisture content during summer months and damages caused by weevils and beetles.

### Management

- Apply heavy doses of farm yard manure or compost for green manure at 50 Kg/tree/year along with 5 kg of neem cake.
- Drench the soil near the tree with 40 litres of 1 per cent Bordeaux mixture at quarterly interval for thrice a year and repeat after 2-3 years.

### 3. Stem bleeding *Theilaviopsis paradoxa* (*Ceratocystis paradoxa*)



### Symptoms

- Symptom of the disease is the exudation of reddish-brown fluid from the cracks in the stem.
- The fluid trickles down to several feet on the stem and the exudates dries up forming a black crust.
- As the disease progresses, more area underneath the bark gets decayed and the bleeding patch extends further up.

### Favorable Conditions

- Copious irrigation or rainfall followed by drought, shallow loamy soils or laterite soil with clay or rock layer beneath the soil, poor maintenance of gardens and damages by Diocalandra and Xyleborus beetles.

**Management**

- Burn the exposed tissue and apply molten coal tar followed by swabbing Bordeaux paste.
- When stem bleeding is observed in association with Ganoderma, follow root feeding or stem injection technique.

**4. Root wilt disease (Kerala wilt) Phytoplasma****Symptoms**

- The important diagnostic symptom is “flaccidity” of leaves i.e. they curve abnormally inwards, resembling the ribs of mammals.
- Wilting of leaves from middle whorl to outward and shedding of buttons and immature nuts occur.
- The crown size also gets reduced in advanced stages and trees remain unproductive.
- The older roots show cracks and blotches and cortex turns brownish black resulting in drying in flakes.

**Favorable Conditions**

- Sandy and sandy loam soils, severe floods and abundance of lace wing bug *Stephanitis typia*.

**Management**

- Remove all severely infected and uneconomic palms and replant with healthy hybrid seedling like CDO X WCT or WCT XCDO.
- Spray the leaves with 0.01 per cent Monocrotophos.
- Control the leaf rot disease by spraying 1% Bordeaux mixture or 0.3% Mancozeb.

### 5. Grey leaf blight (*Pestalotia palmarum*)



#### Symptoms

- Initially symptoms develop only on the outer whorl of leaves, especially in older leaves.
- Gradually, the center of the spots turns to greyish white with dark brown margins with a yellow.
- Complete drying and shrivelling of the leaf blade occur giving a blighted or burnt appearance.

#### Favorable conditions

- Ill drained soils, soils with potash deficiency, continuous rainy weather for 4-5 days and strong winds.

#### Management

- Remove and burn the infected, fallen leaves periodically.
- Apply heavy doses of potash.
- Spray the crown with 0.25 per cent copper oxychloride or 1 per cent Bordeaux mixture before the onset of rains.

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