

DISEASE OF TEA

DHCM (2+1)

THEORY CLASS

5THSEM

TEA

Sc.Name: *Camellia sinensis*

MAJOR DISEASE OF TEA

FUNGAL DISEASE

Blister blight of tea

Exobasidium vexans

Brown blight^l

Glomerella cingulata
Colletotrichum camelliae

Gray blight

Pestalotia theae

Leaf spot

Cercospora theae

Thread blight

Corticium koleroga

Brown root

Hymenochaete noxia

Copper blight

Guignardia camelliae

Armillaria root rot

Armillaria mellea

ALGAL DISEASE

Red rust

Cephaleuros mycoidea/parasiticus

BLISTER BLIGHT OF TEA

INTRODUCTION

First reported from assam in 1868.

It occurs in severely in most tea garden of south india every year.

SYMPTOMS

- Initially oily, yellowish, translucent spots appear on the tender leaf and turn to deep red shiny blisters.
- The circular spot gradually enlarges to 3 to 13mm diameter, bulged on the under surface of the leaf with a **concave trough like depression on the upper surface.**
- Leaves become curled and distorted.
- First flush of 2-3 young leaves are attacked and the young shoots and buds are killed.
- Mature leaf is not affected.
- In nursery infection, seedlings are stunted with many thin stems instead of a single stalk. Repeated attacks cause death of seedlings
- Badly affected nurseries will have to be abandoned
- Succulent leaves and green shoots of newly pruned tea are most susceptible.
- Basidiospores cause secondary infection.

BLISTER BLIGHT ON LEAF



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- **Causal organism:** *Exobasidium vexans*
- The fungus is both inter- and intra-cellular in nature.
- In advance condition of infection the mycellium concentrate in the sub- epidermal layar to produce the hymenial layer from which basidia produce.
- The basidia are cylindrical,hyaline ,thinwalled and it produce ovate to oblong,hyaline basidiospore measures about $5 \times 3 \mu$.
- **Disease cycle:**
- P.I-Pathogen present in the plant.
- S.I-Through basidiospore.

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FAVOURABLE CONDITIONS

- Relative humidity $> 83\%$ for 7 to 10 days favours disease
- Temperature of 14-25 °c favour the disease.
- Bushes in low, moist and shady localities suffer more.
- Pruned trees with new flush is highly susceptible.

Management

- Picking and destroying of infected tender leave and affected older leave.
- Seedlings should be protected in nursery by weekly sprays of COC@0.3%
- Spray, a mixture of 210g COC + 210g **Nickel chloride per ha at 5 days intervals** from June-September and 11 day intervals in October-November
- Mancozeb, Tridemorph, offers good disease control under field conditions.