

Study on cercospora leaf spot / tikka disease of groundnut

Symptoms:

The tikka disease appears as two distinct types of leaf spots: early leaf spot and late leaf spot. Early spot is caused by *Cercospora arachidicola*. The symptoms first appear when the plants are 1-2 months old. Brown red or dark brown irregularly circular spots with a yellow halo first appear on the upper surface of the leaves. Late leaf spot caused by *Cercosporidium personatum* appears generally on both sides of the leaf during the latter part of the growing season. Here the spots are more circular and darker than early leaf spot and commonly show no yellow halos. In early leaf spot, spores are formed mostly in the upper surface while in late spot spores are formed on lower surface. Spots of either leaf spot may be found on leaflets, petioles and stems.

Causal Organism: *Cercospora arachidicola* and *Cercosporidium personatum*

Pathogenic characters:

Mycelia:

Mycelia is composed of fine to coarse hyaline color and septate hyphae.

Conidiophores

Conidiophores are continuous or 1-2 septate, pale to dark pigmented and geniculated. They emerge by rupturing the epidermis in tufts/cluster, their base being densely stromatic. In case of early spot conidiophores appear mostly on the upper surface of the leaf and late spot conidiophores appear mostly on lower surface of the leaf.

Conidium

Conidia of *Cercospora arachidicola* are obclavate or cylindrical, septate (4-12), light colored with bluntly rounded ends and longer than that of *Cercosporidium personatum*.

Conidia of *Cercosporidium personatum* are hyaline or pale yellow to slightly olivaceous, filiform, obclavate, septate (usually 1-7) with bluntly rounded ends.

Systematic position

Kingdom: Fungi

Division: Deuteromycota

Class: Hyphomycetes

Order: Moniliales

Family: Dematiaceae

Genus: *Cercospora*, *Cercosporidium*

Species: *Cercospora arachidicola*

Cercosporidium personatum

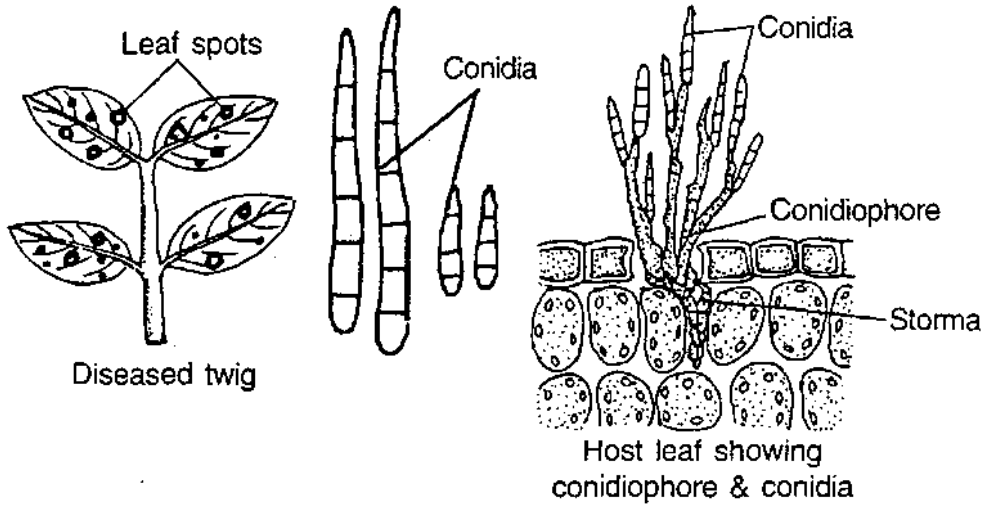


Fig. 5.1.2 : Graphic representation of leaf spots and Conidia of *Cercospora*.

