

Lecture 24 - Diseases of Jasmine and Crossandra

Jasmine

Cercospora leaf spot – *Cercospora jasminicola*

Economic Importance

In India, the disease was first reported in 1946. Now it's known to be widely distributed.

Symptoms

Circular to irregular reddish brown spots of 2-8 mm dia appear on the surface of the leaves. Later the spots become irregular covering larger areas of the leaves.

Pathogen

Stromata are pale to dark brown, globular, filling stomatal openings. Fascicles are mostly dense. Conidiophores are pale olivaceous brown, narrow, sparingly septate and straight or sinuous. It has bluntly rounded tip and are 2 to 4 x 5 to 25 micron meter. Conidia are pale to pale olivaceous obclavate cylindrical, indistinctly septate and straight to mildly curved. Its base is obconically truncate and tip is subobtuse and 20 to 66 x 2 to 4 micron meter.

Mode of spread and Survival

It attacks all species of Jasminum. The disease spreads through wind borne conidia.

Management

Spraying with Mancozeb 0.25% (or) Carbendazim 0.1%

Alternaria leaf blight – *Alternaria jasmine, A. alternate*

Symptoms

In the leaves dark brown spots appear. On humid condition the spots enlarges covering large area causing blighting of leaves. Concentric rings can be seen the lesions. The disease also affects stem, petiole and flowers.

Mode of spread and Survival

The disease spreads through wind borne conidia.

Epidemiology



The disease attacks Jathi malli (*J. grandiflorum*) and mullai (*J. auriculatum*). The disease is severe during winter months (Oct-Dec). In certain areas the disease is noticed even upto February.

Management

Collection and removal of fallen leaves. Spray with Copper oxychloride 0.25% or Mancozeb 0.25%

Collar rot and Root rot – *Sclerotium rolfsii*

Symptoms

Plants at all stages are infected. First the older leaves become yellow followed by younger leaves and finally death of the plant. In the root black discoloration can be seen. On the infected tissues and stem surface white strands of mycelia and mustard like sclerotia are seen.



Management

Soil drenching with Copper oxychloride 0.25%. Heavy application of FYM with *Trichoderma viride*

Phyllody – *Phytoplasma*

Symptoms

Leaves become small malformed and bushy. In the place of flowers green leaf like malformed flowers are formed.

Mode of spread

The disease is transmitted by grafting and whitefly, *Dialeurodes kirkaldii*.

Management

Selection of cuttings from healthy plants. Spraying insecticide to control the vector.