

## Lecture 25 - Diseases of Crossandra

### Wilt: *Fusarium solani*

#### Economic Importance

In India it was first reported from Tamil Nadu in 1976. The disease is formed in both air black and sandy loam soil and losses upto 80 % of plants has been reported.

#### Symptoms

Wilt is observed in patches. In the field the disease is observed one month after transplanting. Leaves of infected plants become pale and droop. Margin of the leaves show pinkish brown discoloration. The discoloration spreads to the midrib in a period of 7 to 10 days. Stem portion gets shriveled. Dark lesions are noticed on the roots extending upto collar region which result in sloughing off the cortical tissue.



#### Mode of spread and Survival

Chlamydospores survive in soil and they are spread by irrigation water.

#### Epidemiology

Incidence is more in the presence of root lesion nematode, *Pratylenchus delatrei* and *Helicotylenchus dihystra*.

#### Management

Affected plants should be pulled out and destroyed to reduce the disease. The nematode can be controlled by soil application of Phorate at the rate of 1 g/plant on 10th day of transplanting. Soil drenching with Carbendazim 0.1 per cent or Copper oxychloride 0.25 per cent on 30 days interval controls the disease. The treatment may be repeated after 3 to 4 weeks if needed.

### Stem rot: *Rhizoctonia solani*

The pathogen also causes pre-emergence damping off, Brown to black lesions develop on stem just above soil level and result in girdling of the stem. The lesions extend to the upper part of the stem. The lesions extend to the upper part of the stem and result in collapse of seedlings. The roots are also rotted.

#### Management

Drenching with Fosesty1-A1 has been found effective in the control of the disease.

**Leaf blight:** *Colletotrichum crossandrae*

**Symptoms**

The symptoms of leaves consist of the development of brownish, depressed necrotic areas surrounded by reddish and slightly raised margins. Initially the spots appear as brownish specks but become darker as they expand. The lesions are more prominent on lower leaves and confined to the margins. Infected leaves roll up, shrivel and drop off, leaving a barren stem with a whorl of young leaves at the top.

**Management**

Spraying with benomyl 0.1% (or) Mancozeb 0.2% (or) Carbendazim 0.1%

**Alternaria leaf spot:** *Alternaria amaranthi var. crossandrae*

**Symptoms**

This disease was first reported from Tamil Nadu during 1972. Infected leaves show small, circular or irregular yellow spots on the upper surface. They soon enlarge turn brown and develop dark brown concentric rings. Infected leaves become yellow and drop off prematurely.

**Management**

Spraying with Benomyl 0.1% (or) Mancozeb 0.2% (or) Carbendazim 0.1%.