

## ANTHRACNOSE OF BETELVINE IN KERALA

Betelvine (*Piper betle* Linn.) is an important cash crop of Kerala. During June 1986, an anthracnose disease was noticed in several betelvine gardens in Trivandrum district, causing considerable economic losses to the cultivators.

The symptoms are first observed on leaves as circular to irregular spots of light brown colour, surrounded by yellow halo. The spots often coalesced to form larger lesions. Infection on the stem appeared as small black dots which gradually enlarged causing death of the tissues resulting in the wilting and drying of the portions above. In severe cases shredding of the cortex exposing fibro-vascular tissues inside was also noticed. Acervuli of the causal organism developed as black specks on dead parts of the stem.

The pathogen was isolated from infected tissues on potato dextrose agar medium and identified as *Colletotrichum gloeosporioides* (Penz) Penz and Sacc. Colonies initially appeared white and cottony which later turned grey in colour. The fungus produced numerous

acervuli in culture. Conidia are cylindrical, hyaline and non-septate with the presence of oil globule. The fructifications appeared as pinkish mass in culture. Conidia measure  $9.1-19.8 \times 3.1-6.2 \mu\text{m}$  in size. The pathogenicity of the fungus in betelvine was tested as per standard procedures. Typical symptoms of the disease developed 4-7 days after inoculation. Re-isolation yielded the fungus identical to the original culture.

Different species of *Colletotrichum* such as *C. piperis* Petch, *C. dasturi* Roy and *C. capsid* (Syd.) Butler and Bisby have been reported on betelvine from different parts of India (Dastur, 1935; Roy, 1948; Singh and Shankar, 1971; Maiti and Sen, 1979). *Glomerella cingulata* (Stonem.) Spauld and Schrenk, causing anthracnose disease of betelvine was reported from Assam (Bulter and Bisby, 1931; Chowdhury, 1946) and Varanasi (Singh and Shankar, 1971). Recently an anthracnose of betelvine caused by *Colletotrichum gloeosporioides* was reported from Karnataka (Naik and Hiremath, 1986). There is no record of this fungus causing anthracnose of betelvine in Kerala.

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