

## LEAF SPOT OF CACAO

'Black pod' disease caused by *Phytophthora palmivora* Butl.<sup>1</sup> and 'charcoal pod' rot caused by *Botryodiplodia theobromae* Pat and *Macrophoma* sp.<sup>2</sup>, in cacao (*Theobroma cacao* L.) have been reported so far in India. Incidence of a leaf spot disease was first noticed in 1972 in plants of 'Forestero' and 'Criollo' varieties of cacao grown in CPCRI farms at Kasaragod (Kerala) and Vittal (Karnataka), and also in some private plantations near Sullia (Karnataka).

The disease appears as minute yellowish specks which are later discernible as circular reddish brown lesions often with a chlorotic halo. A mature lesion may reach a size of 2-4 mm and occasionally two or more adjacent lesions may coalesce forming irregular necrotic patches. In severe cases crinkling of the leaf also is noticed. The mature lesions being dry and brittle, at times, may either drop off partially or be blown away completely by wind resulting in 'shot-hole' formations. The fructifications are noticed mostly on the lower side of the lesions as greyish white masses. The disease is seen throughout the year but the intensity is more during October-January when a temperature range of 19-33° C and R.H. range of 77-98% prevail. The disease was not found to do much damage to the leaf. However, in serious cases much of the lamina will be involved resulting in impairment of the functional photosynthesis. *Colletotrichum*, sp. was isolated from the affected leaves. The fungus was also isolated from the pods affected by rot. The isolates were found to be cross inoculable giving positive pathogenicity on leaves and pods.

When artificially inoculated the symptoms appear in 4-6 days after inoculation. The isolate sporulates moderately on potato-sucrose-agar and abundantly on oats agar media. The fungus was identified as *Colletotrichum gloeosporioides* Penz. and the same has been confirmed by CMI London (IMI. 184312). So far two species of *Colletotrichum* have been recorded on cacao: *C. crassipes* (Speg.) V. Arx causing cacao wilt<sup>3</sup> and *C. gloeosporioides* Penz. causing pod rot, leaf blight and die-back<sup>4,5</sup> in Brazil. We record the occurrence of leaf spot of cacao caused by *C. gloeosporioides* in India for the first time.

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