

## *Pythium vexans* from Cocoa

P. CHOWDAPPA and R. CHANDRA  
MOHANAN—Central Plantation Crops Research  
Institute Regional Station, Vittal, Karnataka  
574 243

Black pod disease of Cocoa (*Theobroma cacao* L.) incited by *Phytophthora palmivora* (Butl.) Butl. is a serious malady causing heavy economic losses. In 1989, black pod affected samples collected from Mavelikkara, Alapuzha and Kottayam areas of Kerala state yielded fungal isolates which were distinctly different from *P. palmivora* in their cultural and morphological characteristics. These isolates produced chrysanthemum pattern of growth on carrot agar medium at 24°C with a growth rate of 28 mm day<sup>-1</sup>. The sporangia were non-papillate and spherical to ovoid. Oogonia were globose and smooth walled with paragynous antheridia. Oospores were aplerotic. Based on the cultural and morphological characters, the isolates were identified as *Pythium vexans* de Bary (IMI 351490).

Pathogenicity of the isolates was established by wound inoculation of nearly mature, but unripe detached cocoa pods of Forestero and Landas 364 varieties. The isolates consistently produced dark brown lesions on pod surface within 2-3 days and covered the entire pod surface after 19-21 days of inoculation. Whitish aerial mycelial growth was observed on the lesion surface 15 days after inoculation. The fungus was re-isolated from these inoculated pods thereby establishing the pathogenicity of *P. vexans* on cocoa pods. The symptoms closely resemble with those described for typical black pod disease caused by *P. palmivora*. However, the rate of spread of lesion caused by *P. vexans* was slow and lesion edge was diffused compared to *P. palmivora* infection on cocoa pods.

A perusal of literature indicates that this is the first report of *P. vexans* on cocoa.

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