CHOANEPHORA CUCURBITARUM: THE CAUSATIVE AGENT OF FLOWER BLIGHT DISEASE OF WINGED BEAN *PSOPHOCARPUS TETRAGONOLOBUS*

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Flower blight of winged bean *Psophocarpus tetragonolobus* (L) DC) was noted in Papua New Guinea in 1977 by Price (1980), and subsequently at the Water Resources Board Nursery, Torrington Square, Colombo in February 1981. Petals of infected flowers either get off-coloured, covered by a sporulating fungal mass and eventually fall off or the flowers fall off suddenly without showing external signs of fungal attack.

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The causative fungus was isolated for the first time, identified as *Choanephora cucurbitarum* (Berk & Rae) Thaxt. (IMI 256433) and its pathogenicity was established. *C. cucurbitarum* grows well and produces conidia and sporangia on 2% Malt extract agar (MEA) at 28-32C°. Conidia collected from diseased flowers range from 35.3-82.4 (56.7) μm in length to 23.5-47.1 (33.2) μm in breadth; while conidia collected from MEA plates range from 35.3-70.6 (54.6) μm in length to 23.5-41.2 (31.5) μm in breadth. Liquid water and external nutrient source is necessary for conidial germination. During conidial germination on MEA films at 28-32°C, they develop a single germ tube in about 2-2½ hrs ; this increases in length and branches in about a further 1-1½ hrs and about the same time a second germ tube makes its appearence.

Infection occurs mainly through petals and less frequently through sepals. Wounding facilitates infection by a conidial suspension, but is not a prerequisite for infection except with very young flowers. All stages of flower development are equally susceptible for infection by a conidial suspension after wounding.

Reference

1. Price, T. V. Diseases of winged beans. *The Winged bean.* Laguna : Phillipine Council for Agriculture and Resources Research, 1980.