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TUBER ROT OF CASSAVA (*MANIHOT ESCULENTA* CRANTZ) CAUSED BY *GEOTRICHUM* SP.

Severe incidence of a tuber rot disease on cassava, cultivar Velanki was observed after the south west monsoon period in the newly cleared forest range of Vazhachal, Mukundapuram taluk, Trichur district of Kerala state. The disease occurred only where cassava was grown after a crop of ginger.

The early symptom of the disease was premature yellowing of the leaves followed by wilting and defoliation. Tubers and collar region of the affected plants were initially covered with white mycelial strands that eventually turned black (Plate 1). Black cankerous growth was also noticed on the tuber surface and the internal tissues were discoloured (Plate 2) Even though the infected

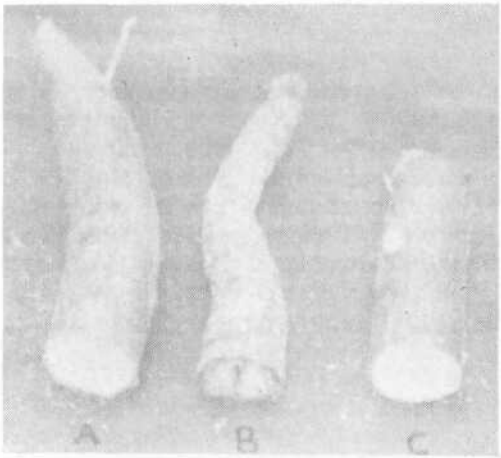

Plate 1. C'assava tuber infected with *Geotrichum* sp. (A & C are healthy and B is diseased)

tissues were rotten, the rind remained intact and whitish mycelial growth of the fungus was noticed on the rind also. Small cavities were formed inside the tissues and the infected tubers had a characteristic `rotting wood' odour.As the disease advances, the entire root system was seen affected, rendering the tubers useless. In the meantime, the plant go to wilted and defoliated completely. The fungus produced creamy white soft mycelial growth on potato dextrose agar medium. Mycelium is

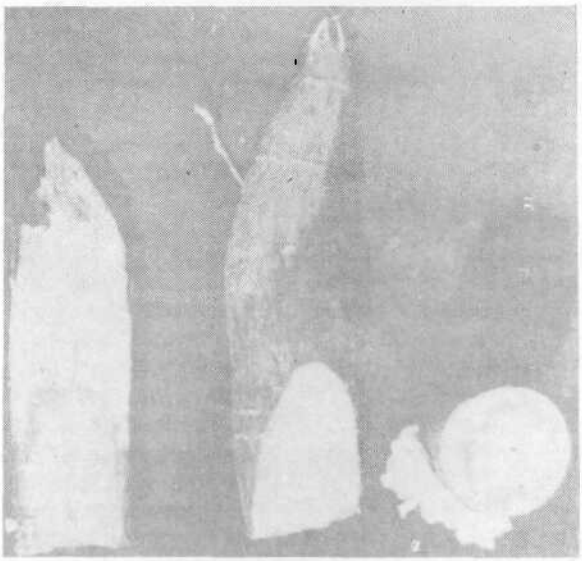

Plate 2. Infected tubers showing internal discolouration

hyaline, and septate. Arthrospores are produced in chain and these spores are barrel to subglobose in shape. The fungus was identified as *Geotrichum* sp. based on morphological and cultural characters. The identity was confirmed by International Mycological Institute (IMI No.351375). Artificial inoculation on detached fresh tubers and on cassava plants proved the pathogenicity *of* the organism. The perusal of literature reveals that *Geotrichum candidum* causes a similar rot disease in carrot. (Suhag and Duhan, 1980; EL-Toboshy *el al.*, 1980). Mishra and Rath (1989) reported rotting of stored ginger rhizomes by *Geotrichum candidum.* In the present case also the disease was observed only where cassava was grown after a crop of ginger. Mishra *et al.* (1989) also reported rotting of colocasia and beetroot by the same fungus. However, there is no record of this fungus causing tuber rot of cassava.

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