

**B-150: *Fusarium* species associated with Panama wilt disease of banana**

W P Sapumohotti, H G C Padmanatha

(Dept of Botany, University of Ruhuna, Matara)

Banana (*Musa* spp.), is one of the popular fruits in Sri Lanka. Recently some of the local banana cultivars have been affected with a serious disease called "Panama wilt". This preliminary study reports on the association of *Fusarium* species in the disease.

Pieces of discoloured vascular tissues of wilted banana plants were plated directly onto plates of Peptone-PCNB-agar. Resultant *Fusarium* colonies were single spored and transferred to potato sucrose agar for identification. KCI-agar medium and soil extract agar were used to determine the ability of the culture to form microconidia in chains and to stimulate the production of chlamydospores, respectively. The diagnostic characters of all *Fusarium* species were based mainly on (1) the presence or absence of microconidia, (2) the shape of microconidia, (3) the presence or absence of chlamydospores, (4) the location of the chlamydospores; intercalary or terminal, (5) the shape of the microconidia and (6) the shape of the basal cells or the foot cells of the macroconidia.

Six month old healthy banana plants (susceptible cv. Kolikuttu) were used to test isolates for pathogenicity. Plants grown in sterile soil in 20 l pots were infested with thoroughly mixing dry soil with rice bran medium in the proportion of 100 : 1 (v/v). After five months plants were observed qualitatively for symptoms.

Recovered species were identified as *F. oxysporum*, *F. solani* and *F. pallidosium*. Some of the strains of *F. oxysporum* were further identified as *F.o.f* sp. *cubense* based on the pathogenicity tests. Isolated strains of *F. solani*, *F. pallidosium* and some of the strains of *F. oxysporum* were associated with diseased tissues, although they were non-pathogens.