B – 45

Susceptibility of local Banana cultivar "Kolikuttu" to Fusarium wilt

Fusarium oxsporum f.sp. cubensse (FOC) causes an important vascular wilt disease or Panama disease of banana (*Musa* spp.) in Sri Lanka. This study reports on the possible use of local banana cultivar Kolikuttu as asusceptible host to screen local isolates of FOC for pthogenicity.

Twennty monoconodoal isolates of FOC were tesed for pathogenicity against plants of banana cultivar Kolikuttu in 50-cm diameter pots in a green house. Sterile soil in pots was infested by thoroughly mixing dry soil with crushed colonized rice bran medium in the ratio of 100:1 (v/ v). Three-month old uniform and healthy banana plants were transplanted into the inoculated pots (1 plant/ pot) and symptoms were observed after five months. Plants showing symptoms of wilt, leaf yellowing, split stems or stunting were cut down and examined for vascular discolouration in the rhizome or pseudostem. Pieces of vascular tissues were plated on peptone-PCNB agar to determine whether *Fusarium oxysporum* could be reisolated.

All isolates caused external and internal disease symptoms in cultivar Kolikuttu, but isolates differed in relative capacity to cause disease. This experiment revealed that there is a possibility to use cultivar Kolikuttu as a susceptible host to screen isolates of *Fusarium oxysporum* for pathogenicity. However, it requires many more isolates of FOC in a wide range of geographical area in Sri Lanka. It is also necessary that the defined inoculum levels and methods of inoculation be adopted, because resistance is also known to be affected by the pathogen inoculum density and inoculation method.