OCCURRENCE AND PATHOGENICITY OF PHTHIUM SPECIES IN SRI LANKA

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The occurrence and pathogenicity of six species of Pythium have been confirmed in Sri Lanka - P. graminicola, P. myriotylum, P. vexans, P. butleri, P. Deliense and P. acanthicum. P. butleri was found to be the most widespred species causing damping-off of chilli, tobacco, tomato, bean and cowpea root and stem-rot of bean, cowpea and onion, and fruit-rot of bean and cucumber. P. butleri was frequently isolated from cultivated soils. P. myriotylum, first reported as the causal organism of rhizome-rot in ginger, was also isolated from wilted cowpea and bean seedlings. P. vexans was isolated from ginger and been pods while P. deliense was obtained from bean P. acanthicum was isolated, together with Phytophthora vignae, from wilted cowpea seedlings. P. graminicola, first reported as a pathogen of ginger, was not detected in any other crop.

Four of the six species reported have a maximum growth temperature above 40 ^{o}C and cause serious crop damage between 35 and 40 ^{o}C. Thick walled oospores of P. butleri, P. deliense and P. myriotylum and the spiny oogonial wall of P. acanthicum enhance the possibilities of survival of these species under adverse warm conditions.

Continuous cultivation of susceptible crops and soil application of selective fungicides such as benomyl and quintozene have resulted in the increase of Pythium populations in cultivated soils as reflected by the increased frequency of occurrence of Pythium induced diseases in recent years.