

D-80 Isolation of a new *Rhizoctonia solani* causing chilli die-back and evaluation of its virulence

S Hettiarachi, D N Gunaratne

Dept of Botany, University of Ruhuna, Matara

Die-back of chilli plants in fields was particularly noticeable at Kiriibbanwewa, Embilipitiya. The symptoms appear on mature plants, the branches dying from top to bottom with a characteristic blackening accompanied by leaf fall and fall of immature pods. The economic loss due to this disease is forcing farmers to abandon the chillie cultivation on which they are heavily dependent at present. Strands of a white mycelium could also be observed at the base of the plant. The causative agent was isolated and identified as *Rhizoctonia solani* inoculated into the soil. The fungus caused post-emergence damping-off of 2 chilli cultivars; *Capsicum annum* var. *acuminatum* cv. MI-1 and MI-2. The plants which escaped damping-off reached maturity as normal plants, but some of the plants started displaying the symptoms of die-back. The isolation of the causative agent of this devastating disease and its virulence on 2 popular chilli cultivars, MI-1 and MI-2 are reported here. The pathogen was identified as a strain of *Rhizoctonia solani* and confirmed by International Mycological Institute. In testing its pathogenicity, it produced post-emergence damping-off and die-back of some plants that escaped damping-off. MI-1 was slightly more tolerant than MI-2. The strain of *R. solani* described here is different from the one known earlier in its pathogenicity. The scale of crop loss due to this new pathogen is very high and studies in control measures are therefore urgent.
