

FACTORS AFFECTING GROWTH AND SPORULATION  
OF SAROCLADIUM ORYZAE, THE  
RICE SHEATH ROT PATHOGEN<sup>1</sup>

Y.J.P.K. Mithrasena and R.L.C. Wijesundara \*  
Regional Agricultural Research Station, Bombuwela  
\* Dept. of Botany, University of Colombo

Sheath rot caused by Sarocladium oryzae is becoming an important problem next to sheath blight in the wet zone of Sri Lanka. In this study, the growth and sporulation characteristics of Sarocladium oryzae were established. Among nitrogen sources tested, maximum growth was with Urea. Optimum pH for growth and highest sporulation was 3.5. Optimum temperature for growth and sporulation varied with the medium. On PDA, it was  $30 \pm 2^{\circ}\text{C}$ , and on host extract media, it was at  $25 \pm 2^{\circ}\text{C}$ . Sporulation was enhanced by exposure of colonies to 12h light and 12h dark periods.

The study showed that germination of spores decreased with the increase in spore concentration. The optimum temperature for spore germination was  $25 \pm 2^{\circ}\text{C}$ . Less than 2% of the spores germinated within 24h of incubation at  $25 \pm 2^{\circ}\text{C}$ , but 10% and 30% germinated after 48h and 72h of incubation respectively.

Of the several fungicides tested, Benomyl was the most effective in inhibiting spore germination, growth and reproduction of the fungus.