INHIBITION OF CERTAIN FUNGI BY MEMNONIELLA ECHINATA

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Memnoniella echinata (Riv.) Golloway, a cosmopolitan dematiaceous fungus is well known as a decomposer of cellulosic material (Ellis, 1972, White et al, 1949). During our studies on the fungi of Karachi the fungus was found to be a predominant isolate from water submerged twigs of Bambusa sp. (Ghaffar & Qaiser, 1972). Similar observations were made by Wade (1947) who found this to be predominant on textile fabric in mixed inoculations with Chaetomium globosum and Sta hybotrys atra. To test its competitive ability, M. echinata (K.U. Bot. Dept. acc. no. 166) was grown on Czapek Dox Agar, pH 5.3 opposite Alternaria tenuis, Aspergillus fischeri, A. fumigatus, A. niger, 4. quadrilineatus, Cuninghamella echinata, Curvularia pallescens, Drechslera sp., Fusarium chlamydosporioides, F. lini, F. moniliforme, F. semitectum, Macrophomina phaseoli, Myrothecium striatispermum, Nigrospora sp., Stachybotrys atra, Trichoderma hamatum, T. pseudokoningii, Tricothecium roseum and Cr. etonium globosum. The dishes were incubated at 28°C and the rate of growth of the organisms were measured daily.

M. echinata secreted toxic metabolite in the medium, retarded the growth of the test fungi and produced a zone of inhibition of 2-10 mm in 7 days time. It may be mentioned that production of antifungal metabolites by M. echinata has not been reported by Brian (1951) and Broadbent (1966), whereas it produced an inhibitor of Southern bean mosaic virus (Gupta & Price, 1950).

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