ISOLATION OF SOME WOOD DECAYING FUNGI AND STREPTOMYCES AND THEIR EFFECTS ON SOME COMMERCIAL TIMBER SPECIES IN SRI LANKA

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Wood is subject to attack by wood inhabiting fungi in a variety of environmental situations from the standing tree to the wood product in service. An investigation was carried out to study the resistance of five commercial timber species namely Rubber (*Hevea brasiliensis*), Lunumidella (*Melia dubia*) Pine (*Pinus caribea*), Mahogony (*Swietenia macrophylla*)and Teak (*Tectona grandis*) to fungal attack.

Four wood decaying fungal species were isolated from naturally infected wood samples. Three species namely *Tricoderma sp., Mycelia sterilia* and *Streptomyces sp.* belonging to Deuteromycotina subdivision and *Aspergilles sp.* belonging to Ascomycotina subdivision were identified. These species were used to assess the initial decay of wood. Out of the four species tested *Streptomyces sp.* was the most destructive fungal species.

The weight loss of timber was taken as parameter of decay. Wood species and the fungal species had a significant effect on the weight loss. The highest weight loss due to fungal attack was caused by *Streptomyces species* in all the timber species except in Lunumidella where *Tricoderma sp.* recorded the highest weight loss.

In Rubber, Lunumidella and Pinus moisture gain was observed with fungal attack while moisture loss was observed in controls. In Mahogany and Teak moisture gain due to fungal attack was negligible. Since these fungi caused a considerable damage at the initial stage of decay they can be grouped as primary decaying fungi in wood.