

Lectin accumulation in some xylariaceous fungi

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A number of xylariaceous fungi; the common wood, leaf, and fruit inhabitants, were investigated for their accumulation of lectins in mycelia. Lectins are diverse multi-valent carbohydrate-binding proteins or glycoproteins of non-immune origin, which are able to agglutinate animal and plant cells, and currently employed in a number of biomedical and clinical research. The accumulation of lectins of ninety four xylariaceous fungus isolates mainly belonging to different species and/or strains of the genera *Xylaria* and *Hypoxylon* were detected by haemagglutination assay of the mycelial extracts using human (ABO blood groups) and animal (goose, rabbit, rat, and sheep) red blood cells. The fungi were isolated from specimens collected from forest areas in Thailand, particularly in Chaiyaphum, Chiang Mai, Kanchanaburi, Phisanulok, and Nakhon Ratchasima provinces. Approximate 77% and 70% of the mycelial extracts were found to predominantly perform hemagglutinating for rabbit and rat erythrocytes respectively. Almost none of the extracts agglutinated human and goose red blood cells. The haemolytic activity against sheep erythrocytes was observed at the proportion of 55% of the fungal extracts.