Detection of Fungal Contaminations in Export Coir Consignments

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Coir or coconut fibre is a natural hard fibre extracted from the husk of the coconut. Coir is a good source for harboring and growth of fungi due to the high moisture content and the nutrients, it can support the growth of pathogens harmful to men, animals and plants. Export market is looking for coir products with minimum contaminants which is important to control the crop infections and maintain the human health. In the present study attempt was made to identify the fungal species present as contaminants in the export coir consignments which threatens the bio security of importing countries. Fungi in coir samples were isolated by inoculating the PDA plates with direct culture 'method and dilution series method under the aseptic conditions. Nine fungal species were isolated after 72 hours of incubation period. Isolated fungi were sub cultured separately to obtain the pure cultures which is important in the process of identification. Fungal and spore morphology was examined under the inverted compound microscope (Labomed TCM 400) for the identification of fungal species. *Mucor* sp., *Aspergillus* sp., *Fusarium* sp., *Colletotrichum* sp., *Geotrichum* sp., *Paradoxa* sp., *Rhizopus* sp., *Trichoderma* sp., and *Penicillium* sp., were found after the investigation of 8 samples of different coir exporting companies in Sri Lanka. *Aspergillus* sp. and *Mucor* sp. were the most abundant fungal species among the companies while *Paradoxa* sp., *Fusarium* sp. and *Trichoderma* sp. were recorded only in samples from 3 companies.

Keywords: Coir, Fungi, Aseptic, Bio security, Contaminants