

Title: CFAM/ILMD-FIOCRUZ: EXTENSION, AUTHENTICATION TAXONOMIC, CONSERVATION AND INTRODUCTION OF CRYOPRESERVATION METHOD IN LIQUID NITROGEN.

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Abstract:

The mycology collection of the Institute Leônidas and Maria Deane (ILMD) is called as Fungi Collection of Amazon (CFAM), has the objective of preserve the biodiversity mainly the producers of medical and industrial enzymes and provide access to basic research and technological applications. Due to importance of microorganisms collection, the project objectives are extend, phenotypically identify, preserve and introduce the method of cryopreservation with liquid nitrogen in the collection of CFAM/ILMD. Fifty samples from soil, obtained from the Reserve Mamirauá-Tefé-Amazon-Brazil, stocked in steril distilled water were sown in Petri dishes containing the culture media Malt Extract Agar (MEA) from the microculture technique and kept at 28°C. For identification, were made macro and microscopic analysis of the colonies for seven days. Positive growth, identification of traditional taxonomy, blushing coverslips with lactophenol and observing them in an optical microscope. Negative results, put into a Glucose Broth at 28°C and the cultures examined seven day aged, negative growth obtaining the sample was considered unfeasible. Samples of pure cultures obtained were incorporated through conservation methods in sterile distilled water (duplicate) and lyophilization (quadruplicate). Then inserted the liquid nitrogen technique in biological collection, which is characterized by promoting the conservation and maintenance of several cell types in very low temperature. They were identified at genus: *Trichoderma*, *Penicillium*, *Aspergillus* and *Fusarium*. Of the analyzed cultures, twenty-nine expressed specific characteristics, three were contaminated by other microorganisms and only one found was unfeasible. However, the viability of preserved is almost total use, many of those cultures retain their specific and pathogenic characteristics for years and the search for new preserved is continuous, by other methods or the same used.

Keywords: collection, microorganisms, conservation

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