

**Title: EVALUATION OF THE INFLUENCE OF PRESERVATION FOR FREEZE-DRYING IN FEASIBILITY AND CONSERVATION OF PROPERTIES OF MICRO AND MORPHOLOGICAL ASCOMYCETOS MACRO**

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**Summary:**

Fungi have economic potential patriating of various industrial process. In fact, the ex situ conservation of these microorganisms becomes increasingly important. Different preservation methods have been used to ensure conservation of genotypic and phenotypic characteristics of these organisms these the freeze drying technique. The latter consists in fast drying of the culture that promotes a stop microbial metabolism. The aim of this study was to evaluate the influence of preservation by freeze drying the viability and micro and macro morphological properties of Ascomycetes. To achieve this goal a suspension of cells from 55 isolates belonging to four different genres were submitted to freeze-drying for 16 hours in a preservative solution (10% skimmed milk, 5% monosodium glutamate), Morphological aspects of the colonies were evaluated before and after employment of the technique. After reactivation of the isolates subjected to freeze drying, it was observed the growth 27 of these (45% viability). The microorganisms of the genus *Aspergillus* sp. and *Penicillium* sp presented 50% viability and maintenance of their morphological characteristics. On the other hand, the isolates of the genera *Trichoderma* sp. and *Fusarium* sp. did not present viability. These results demonstrate that is necessary to improve the method used in the present work in order to become suitable for other fungi.

Key words: Microbial Collections, Freeze-Drying, Ascomycetes.

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