

TITLE: ROLE OF CULTURE COLLECTIONS OF MICROORGANISMS AS A SOURCE OF BIOLOGICAL INFORMATION

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ABSTRACT:

Brazil presents different biomes due to the variation of the environment as climate and soil, consequently has a great biodiversity. Furthermore presents the diversified production of fermented foods, such as cheeses, wines, meat, coffee and other. Important microbiota is present in all these environments and foods and has been isolated and studied. It is important that these microorganisms are preserved in Culture collections (CC). The *ex situ* preservation of microbiological resources is indispensable practice for the knowledge and research in biotechnology. The CC have both the capacity and the obligation to reflect developments biological inquiry. The Culture Collection of Microorganisms of the Department of Food Science (CCDCA / UFLA) of the Federal University of Lavras (Minas Gerais-Brazil) was formally established in 2010. The CCDCA / UFLA is accredited as a Faithful Depository registered in the Genetic Heritage Management Council (CGEN) and is a member of the WFCC - World Federation for Culture Collections and registered in the WDCM World Data Center for Microorganisms (WDCM) with the number 1081. Currently the filamentous fungi are the main microorganisms present in the collection. These microorganisms have the ability to grow on simple and cheap substrates, and present important biotechnology potential such as production enzymes, antibiotics, pigments, vitamins, alcohols, organic acids, pharmaceuticals, among others. Furthermore it has an important environmental action such as remediation and decontamination of environmental pollutants, and use in biological control. The CCDCA currently has 1313 strains preserved at -80 °C belonging to the genera *Aspergillus*, *Cladosporium*, *Fusarium*, *Penicillium* and *Talaromyces*. Long-term collections can ensure that biological materials from this period were available to generate technological advancements in the next generation, allowing answers to research questions that were not imagined when materials were collected, characterized, and preserved for the first time.

Keywords: culture collections, microbiota, Brazil, fermented foods, biodiversity

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