

**TITLE:** MICROBIAL CULTURE COLLECTIONS FOR BIODIVERSITY RESEARCH AND TRAINING OF TAXONOMISTS

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**ABSTRACT:**

Culture collections (CC) of microorganisms can play an important role in ensuring safe food for the world's population. The preservation of different groups of microorganisms, such as toxigenic, pathogenic, phytopathogenic, deteriorating or biotechnological, allows the research development to control or use these microorganisms. Then, it is important that these CC use appropriate preservation techniques, species identification rigid criteria and multidisciplinary specialists group. The Microorganisms Culture Collection of the Department of Food Science (CCDCA / UFLA) of the Federal University of Lavras (Minas Gerais-Brazil) has been developing research projects that value and demonstrate the importance of CC for safe food production, microorganisms biodiversity study and training of human resources in taxonomy. CCDCA participates in the Taxonomy Training Program (Protax / CNPq) which currently has 2 post-doctoral students, 4 doctoral students, 4 master's students and 8 students of scientific initiation. Research projects especially involve: 1) Monitoring of ochratoxigenic fungi in coffee fruits and beans; 2) Fungi prevalent in regional artisanal cheeses in Brazil; 3) Terroir microbiota Fungi and Yeasts of tropical wines; 4) Evaluation of the genes expression involved in the ochratoxin A synthesis as a function of the temperature changes in coffee fruit processing; 5) Biodiversity of *Aspergillus* and *Penicillium* in mining area soils and cerrado biomes, Atlantic forest and caatinga. In projects 1) to 4), climate change certainly will influence food safety. The projects evolve isolation techniques, morphological identification, assessment of toxigenic and biotechnological potential in culture media. Thus, CCs are important sources of research to ensure the preservation of microbial biodiversity and the development of research for production of safe food even in the face of different climate change scenarios. The CCDCA / UFLA is accredited as a Faithful Depository is a member of the WFCC and registered in the WDCM with the number 1081 and currently has 1313 strains preserved at -80 °C, belonging to the genera *Aspergillus*, *Cladosporium*, *Fusarium*, *Penicillium* and *Talaromyces*.

**Keywords:** culture collections, fungal diversity, biotechnology, preservation

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