

Plan Overview

A Data Management Plan created using DMPTool

DMP ID: <https://doi.org/10.48321/D1327016FD>

Title: Presence of mycotoxin-producing fungi in roasted Arabica coffee of three varieties produced in Cesar, Colombia

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Project abstract:

El café representa el principal producto agrícola de Colombia, siendo vital para la economía y el sustento de una parte importante de la población. Para mejorar su calidad es fundamental implementar buenas prácticas en el cultivo, cosecha y procesamiento del café. Esto reduce el riesgo de contaminación por diversos agentes físicos, químicos y biológicos como la formación de micotoxinas, que representan un obstáculo importante para su comercialización por el impacto en la salud pública.

El objetivo del estudio fue demostrar la presencia de hongos productores de micotoxinas tipo Ocratoxina A en café tostado en el municipio de Valledupar.

Se analizaron 16 muestras de granos de café tostado de tres variedades de Arábica, que correspondieron al 21% de los municipios cafetaleros del Cesar, las variedades Castillo General y Colombia representaron el 60% y 33% respectivamente. Se aislaron e identificaron 14 cepas de hongos mediante criterios taxonómicos en PDA y Czpeck como géneros presuntivos *Aspergillus* 57,69% (15) y *Penicillium* 34,61% (9), identificándose *A. niger* y *P. verrucosum* con 26,9%. y 7,69% respectivamente, estos datos son vitales para tomar decisiones a nivel de políticas de salud pública y generar actividades para fortalecer al sector cafetalero en el seguimiento de la implementación de buenas prácticas de cosecha y poscosecha en los cultivos de café.

Start date: 07-05-2023

End date: 07-05-2024

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Presence of mycotoxin-producing fungi in roasted Arabica coffee of three varieties produced in Cesar, Colombia

Data Collection

What data will you collect or create?

Information in Excel corresponding to the geographical location of the coffee-producing municipalities, varieties of roasted Arabica coffee, macroscopic and microscopic data of each fungal isolate. and list of identified genera and/or species.

How will the data be collected or created?

All the information collected will be saved in Excel with sheets for each characteristic to be evaluated. ProyMico is denounced.

The samples will be described by codes in order to maintain the confidentiality of the data.

The versions go by date (ProyMicoxx)

Documentation and Metadata

What documentation and metadata will accompany the data?

The information appears in a table, with data on mushroom nomenclature, coffee variety and morphotype of identified mushroom genera.

10 ml of the mucilage sample was taken placed in 90 ml of 0.1% peptone broth. It was incubated for 20 hours at 110 rpm and 30°C. Subsequently, 3 serial dilutions were made and cultured using a surface technique. PDA and CZPECK agar were incubated between 30 and 35 °C for 3 to 5 days to observe the development of the Colony Forming Units, then the mounts of each morphotype were carried out using the tape technique and the characteristics were observed. microscopic that was related to the macroscopic morphology to achieve the taxonomic identification of the isolates.

Ethics and Legal Compliance

How will you manage any ethical issues?

To carry out the sample collection, the collection framework permit ANLA-01749-2017 UDES is used

How will you manage copyright and Intellectual Property Rights (IP/IPR) issues?

The data collected is part of the UDES fungal strain collections.

Storage and Backup

How will the data be stored and backed up during the research?

I have the availability to upload all the information to the cloud (One drive)

How will you manage access and security?

The information stored in Onedrive will be delivered via email to the researcher.

Selection and Preservation

Which data are of long-term value and should be retained, shared, and/or preserved?

The data will be kept for a reasonable period of time for formative research processes.

What is the long-term preservation plan for the dataset?

In encrypted folders in the cloud.

Data Sharing

How will you share the data?

Access permission is granted to those who require the information (academics and researchers) directly by email.

Are any restrictions on data sharing required?

The owner of the information chooses which user can or cannot modify the information.

Responsibilities and Resources

Who will be responsible for data management?

The person responsible for implementing and reviewing the DMP is Berilda Pedraza.

What resources will you require to deliver your plan?

Only the computer resources available at the university will be used.

Planned Research Outputs

Dataset - "Aspergillus indicador de micotoxinas en café"

Los géneros de hongos Aspergillus están relacionados con la presencia de micotoxinas tipo OTA en diferentes matrices alimentarias incluyendo café tostado, molido y soluble.

Planned research output details

Title	Type	Anticipated release date	Initial access level	Intended repository(ies)	Anticipated file size	License	Metadata standard(s)	May contain sensitive data?	May contain PII?
Aspergillus indicador de micotoxinas en café	Dataset	Unspecified	Restricted	None specified		None specified	None specified	No	No