Mycokey

Integrated and innovative key actions for mycotoxin management in the food and feed chain

Lay summaries

Knowledge transfer to stakeholders

MycoKey

European Commission

HORIZON 2020

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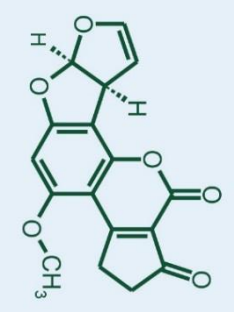
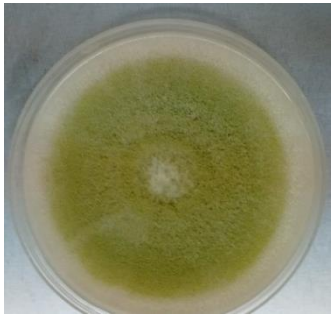
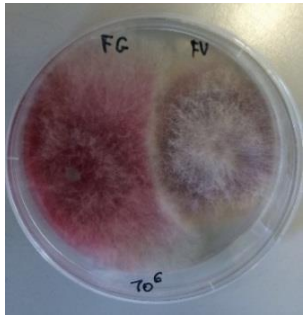
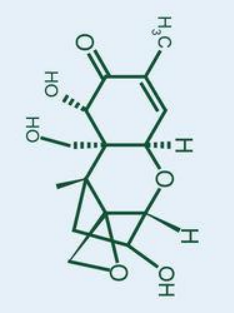
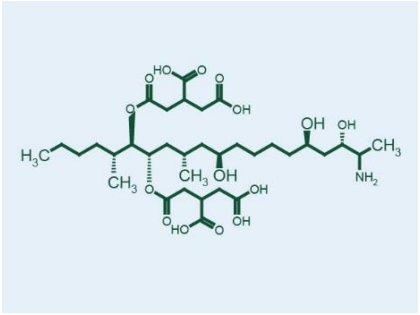
MycoKey Round Table Discussions of Future Directions in Research on Chemical Detection Methods, Genetics and Biodiversity of Toxigenic Fungi and Mycotoxins











ISSUE

Scientific fields are always changing, and it is important to determine the directions in which they are heading

Two roundtables were organized focused on **advances in chemical detection and monitoring of mycotoxins**, and on **genetics and biodiversity** as they relate to mycotoxin production

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APPROACH

The Roundtable discussions were guided through the use of the Nominal Group Technique, a moderated discussion technique that provides an equal input from all participants and is well-known as a process for generating a large number of ideas, while also providing a mechanism for ranking them. The rankings and the total list of ideas provide a rich and detailed context from which particular ideas and general trends often can be extracted

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OUTCOMES

Chemical detection methods

Antibody-based diagnostics

- Increasingly accepted as standard methods
- Encouraged research for improving test performances

Multi-mycotoxin methods

- Increasing application foreseen for official controls given the increasing number of regulated mycotoxins
- Need for standardization and cross-laboratory validation

Genetics and Biodiversity

- There are numerous technological approaches to identify critical regulatory circuits and the involved molecules, but unequivocal answers remains a challenge
- The basic biology underlying some of the observed facts needs to be better understood

From Single- to Multi-mycotoxin

Cost effective Easy to use

Harmonized protocols

Future direction in research

Microbiome description

Omics approach

Gene deletion

Toxins 2018, 10, 109;
doi:10.3390/toxins10030109

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