

Poster



Mycotoxins multi detection by ELISA

Cristina Palomo (1), Said Hamad(2)

(1)Laboratorio Microal

(2)Universidad Pablo de Olavide

Keywords: mycotoxins; ELISA

ABSTRACT

Mycotoxins are secondary metabolites produced by some fungi that may occur in certain vegetable food like corn, cereals or nuts that have not been stored properly. They occur more often in countries with tropical weather and the three main fungi genera that produce them are *Aspergillus*, *Fusarium* and *Penicillium*. The most common mycotoxines are aflatoxins, fumonisins, ochratoxin, zearalenone and deoxynivalenol.

These compounds are toxic and they can produce health disorders in people or animals fed with contaminated food. Aflatoxines are considered the most powerful cancerogenic natural compounds. The high toxicity of mycotoxins has forced setting maximum limits by governments.

Several methods are used for detection and quantification of mycotoxins. ELISA (Enzyme-Linked ImmunoSorbent Assay) tests are sensitive and relatively rapid methods. There are specific commercial kits for each type of mycotoxins, which detect levels within the legal limits for each mycotoxin. In this project, the samples processing, extraction and implementation of the tests used to detect the various mycotoxins are described.

It is intend a research project to develop an improved ELISA kit to detect several mycotoxins while maintaining the sensitivity and efficiency. This improvement will be based on the use of different chromogens, to distinguish between the different mycotoxins that could be detected by the test.

REFERENCES

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