

The Risk of *Fusarium* and Their Mycotoxins in the Food Chain

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Abstract

Fusarium sp. and mycotoxins of these species pose a major risk to consumer health, agriculture and the food industry. This paper is a worldwide bibliographic study on impact of *Fusarium* and mycotoxins on the food chain. The factors influencing the development of fungi *Fusarium sp.*, the formation of mycotoxins and their microbiological risk on the food chain must be considered as a whole. For cereals and oilseeds before and after harvest, fungal infections and mycotoxin contamination present serious problems worldwide. This paper is an overview of the factors that include the microbiological risk and impact of *Fusarium* in the food chain mentioned in national and international studies. The methods and results obtained in this direction internationally are mentioned, such as: infrared spectroscopy, Raman spectrometry and hyperspectral imaging. Also, in review are presented solutions to reduce this impact on the food chain.

Keywords

Fusarium sp., Mycotoxins, Food Chain, Management Systems in Agriculture and Food Industry, Food Safety

1. Introduction

Mycotoxins are produced by fungi under certain conditions of temperature and humidity and pose a risk to the health of consumers [1]. World Health Organization (WHO) in collaboration with Food and Agriculture Organization of the United Nations (FAO), is monitoring this major issue globally [2] [3]. Mycotoxins are secondary metabolites of *Aspergillus*, *Fusarium* and *Penicillium*, fungi

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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