

# IMPROVING PUBLIC HEALTH THROUGH MYCOTOXIN CONTROL

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## Includes chapters on:

- Fungi producing significant mycotoxins
- Chemical and physical characteristics of the principal mycotoxins
- Sampling and sample preparation methods
- Analysis of mycotoxins
- Health effects in animals
- Health effects in humans
- Risk assessment and risk management of mycotoxins
- Economics of mycotoxins: evaluating costs to society and cost-effectiveness of interventions
- Practical approaches to control mycotoxins



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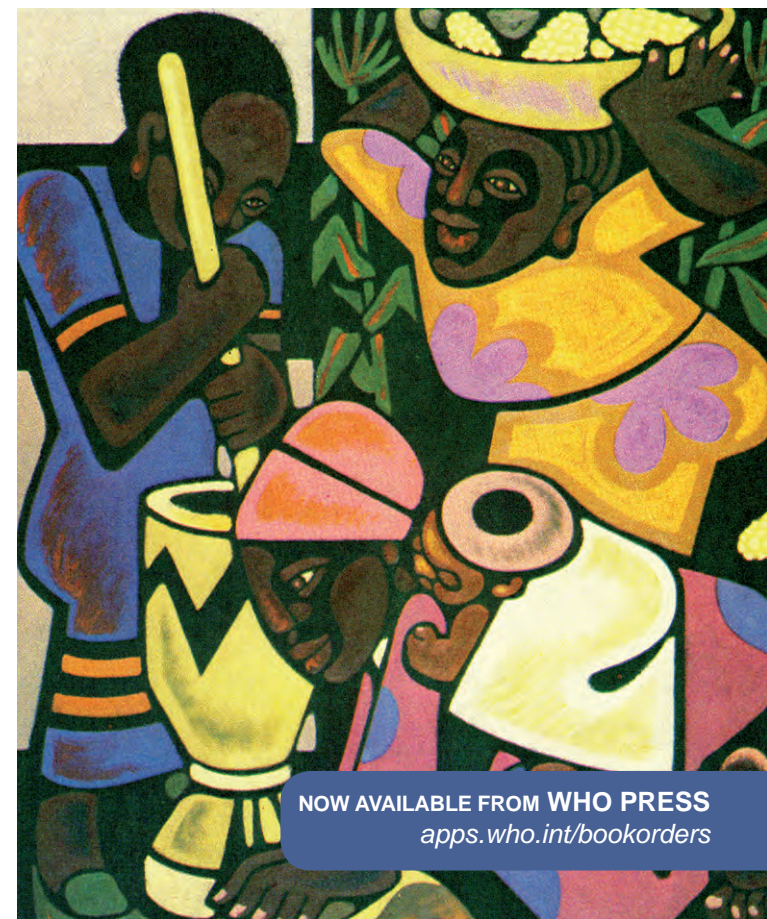
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## AN URGENT PROBLEM



Mycotoxins are fungal toxins that contaminate many of the most frequently consumed foods and feeds worldwide, including staple foods consumed by many of the poorest and most vulnerable populations in the world. Therefore, human and animal exposure to one or more of this broad group of toxins is widespread.

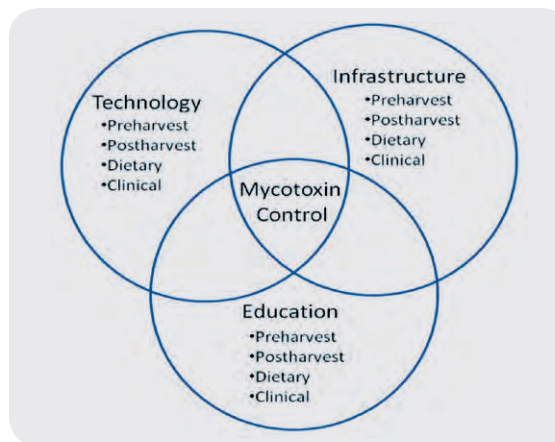
Mycotoxins have the potential to contribute to a diversity of adverse health effects in humans, including cancer, even at low concentrations. Economic burdens resulting from crop contamination are added to those on health. Given the ubiquitous nature of exposure in many countries, an urgent need exists for a coordinated international response to the problem of mycotoxin contamination of food.

Failure to act in a timely manner poses a grave risk, particularly to people in low-income countries where basic commodities like wheat, maize, and groundnuts are potentially contaminated with harmful levels of mycotoxins and are consumed in large quantities.



## WHAT CAN BE DONE?

The knowledge and methodologies exist to control mycotoxins in food. However, these are currently only applied with any rigour in some high-income countries with well-established analytical methods to screen for mycotoxins and with strong regulatory controls.



In low-income countries, the situation is often in marked contrast: subsistence or small-scale farmers produce foods for local consumption that may be heavily contaminated with mycotoxins; these foods are untested; and regulatory controls either do not exist or are not enforced. In low-income countries, exposure to mycotoxins at high levels is often closely associated with inequality and poverty.

Despite the current situation, approaches to reduce mycotoxin exposure in low-income countries are available for implementation. Therefore, these affordable and feasible solutions should be a part of the international development agenda. Much can be done; much should be done.

## IMPROVING PUBLIC HEALTH THROUGH MYCOTOXIN CONTROL

This book from the International Agency for Research on Cancer, the specialized cancer agency of the World Health Organization, aims to sensitize the international community to the mycotoxin problem in a format that is accessible to a wide audience and is useful to decision-makers across a broad spectrum of disciplines, including agriculture, public health, marketing, and economics.



The editors hope that this book will be a stimulus to governments, nongovernmental and international organizations, and the private sector to initiate measures designed to minimize mycotoxin exposure in high-risk populations. The book not only provides a scientific description of the occurrence and effects of mycotoxins but also goes further by outlining approaches to reduce mycotoxin exposure aimed at improving public health in low-income countries.