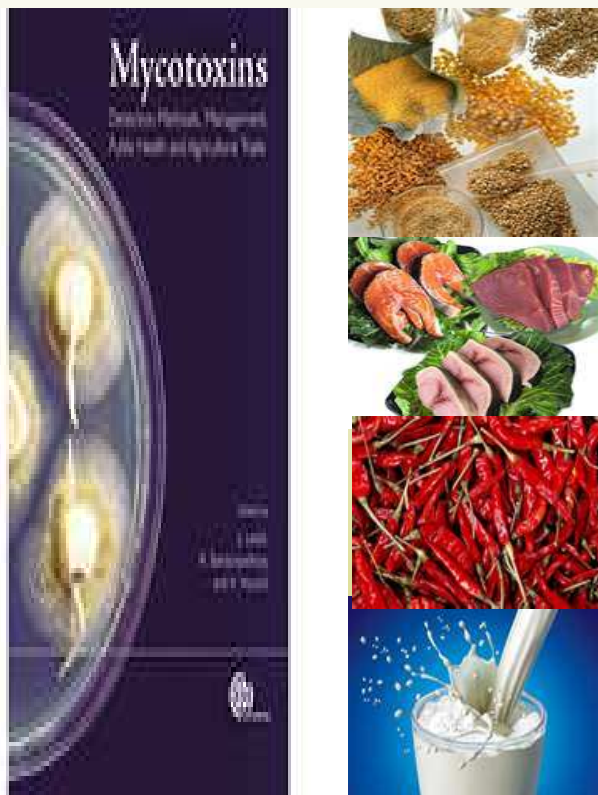


# MYCOTOXIN UNIT

## NATIONAL PUBLIC HEALTH LABORATORY



MINISTRY OF HEALTH

## INTRODUCTION

Mycotoxins are the secondary metabolites of fungus that cause adverse effects in human or animals. Mycotoxins are produced as a result from fungal infection of the crop or infection of stored products. There are many types of mycotoxin and the most commonly found are:

- i) Aflatoxin - mostly produced by *Aspergillus flavus* or *Aspergillus parasiticus*.
- ii) Ochratoxin - mostly produced by *Aspergillus ochraceus* or *Penicillium verucosum*
- iii) Zearalenone - mostly produced by *Fusarium graminearum*
- iv) Deoxynivalenol - mostly produced by *Fusarium graminearum*.
- v) Patulin - mostly produced by *Penicillium*, *Aspergillus* and *Byssoschlamys*
- vi) Citrinin - mostly produced by *Aspergillus* and *Penicillium*
- vii) Fumonisin— mostly produced by *Fusarium verticillioides*
- viii) T2/HT-2 - mostly produced by *Fusarium* .

Direct exposure to high level of mycotoxins may cause acute toxicity and death, while prolonged exposure in small quantities may cause chronic disease including cancer/tumor formation and genotoxicity, immunosuppression and kidney damage or cancer, affect the reproduction system, fetal developments and health of new-borns.



## PURPOSE OF ANALYSIS

- i) Food poisoning / outbreak
- ii) Surveillance Program
- iii) Monitoring Programs
- iv) Method optimization



## SAMPLE REQUIREMENT

Type of sample	Quantity needed
Nuts and its products	1.5 kg (with shell/null) 1.0 kg (without shell/null)
Cereal and its products	1.0 kg
Fish and its products	1.0 kg
Liquid samples	1.0 L
Spices, Coffee, Cocoa and other types of samples	1.0 kg