

# Monitoring and **MoniQA** Quality Assurance

## **Mycotoxins: Implications for The Food Industry**

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**MoniQA**

[www.moniqa.org](http://www.moniqa.org)

Campden BRI



SIXTH FRAMEWORK PROGRAMME



# Acknowledgements

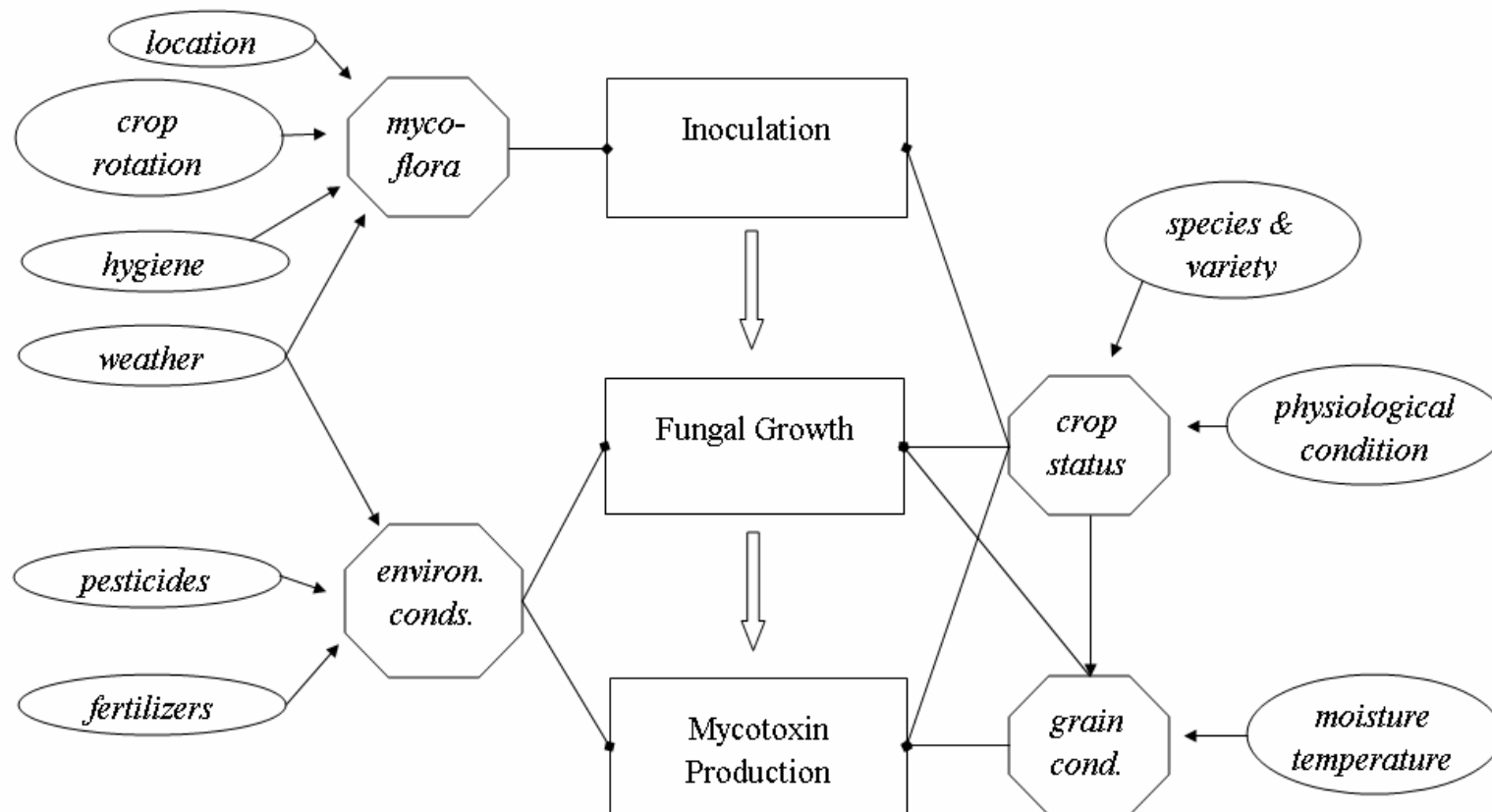
- Hans van Egmond (RIVM) & Michele Solfrizzo (CNR-ISPA)
- MoniQA Network of Excellence
  - Contract Food-CT-2006-036337

# Thought for The Day

**“Food shall not be placed on the market if it is unsafe.”**

**Article 14.1 REGULATION (EC) No 178/2002**

# Mycotoxins: The Challenge



# Mycotoxins: Commercial Features

- Toxic in humans and live-stock
- Non-uniform distribution in bulk commodities.
- Difficult to remove without compromising technological integrity of commodity.
- Often subject to specific regulation
- Chemical decontamination prohibited (human food)
- Dilution is not permitted
- Removal by physical methods (e.g. sorting) is permitted)
- Significant financial implications for non-compliance

# Mycotoxins & The Law

## **Council Regulation (EEC) 315/93**

*Defines what a contaminant is & the circumstances under which contamination is permitted*

## **Commission Regulation 1881/2006**

*Sets limits for certain contaminant/food combinations (including mycotoxins)*

## **Commission Regulation 401/2006**

*Sets out sampling methodology and performance criteria for analytical methods (regulatory enforcement)*

## **Commission Decisions 2006/504/EC & 2007/563/EC**

*Sets out specific control measures for high-risk aflatoxin contaminated foods.*

# Sampling & Analysis

## Regulatory vs. Commercial Practice

### Regulatory

- Residue limits often set in law
- Rigorous sampling protocol
- Defined performance criteria for analytical methods
- Evidential standard: '*beyond reasonable doubt*'
- Defined Appeals Procedure

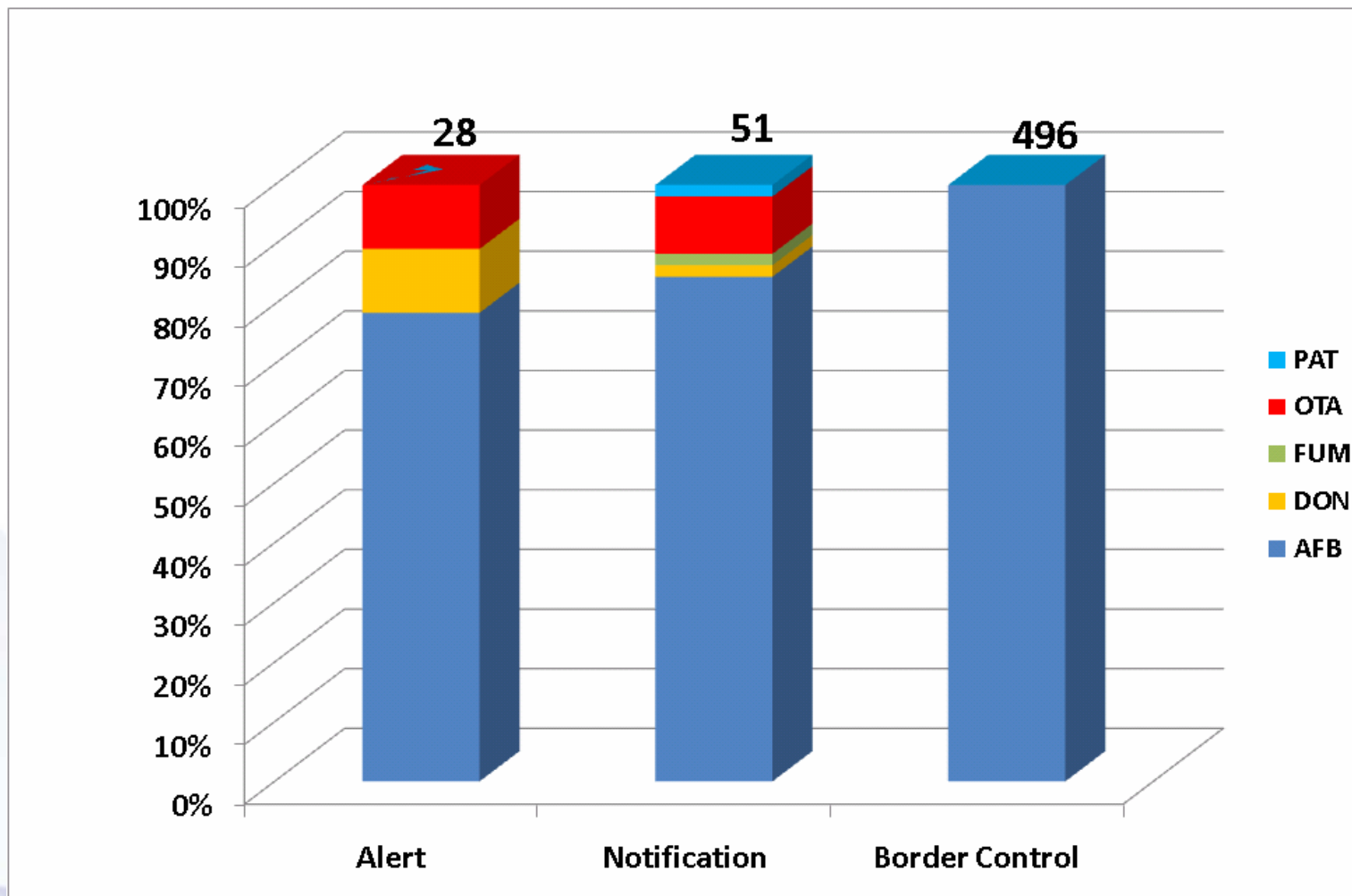
### Commercial

- Residue limits *below* those set in law
- Sampling protocol agreed in contract (low rigour)
- Analytical methods agreed in contract (+/- performance criteria)
- Analytical data considered to be absolute
- Often no possibility of 'Appeal'

# Key Learning

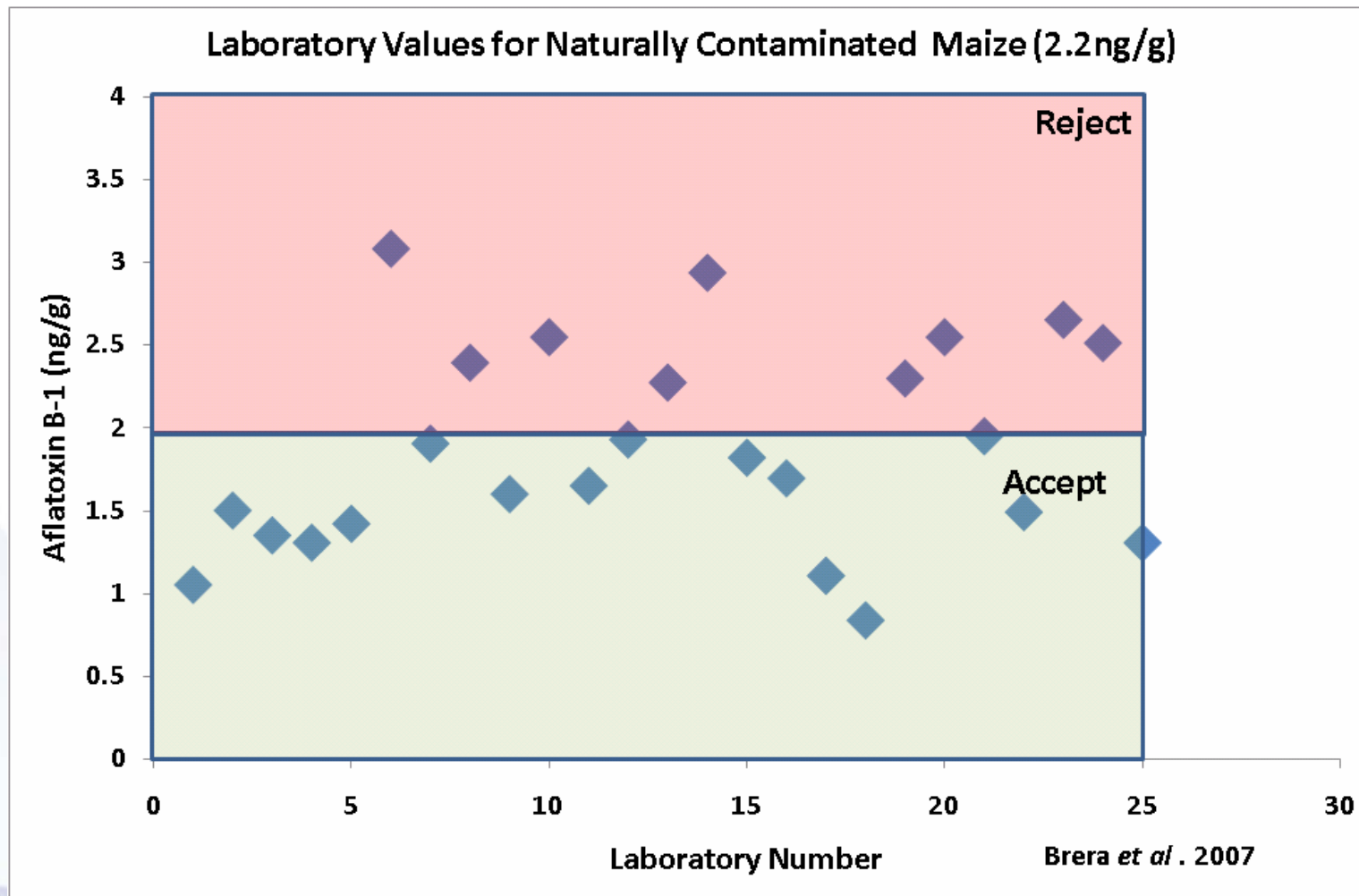
Regulatory compliance does not necessarily mean  
commercial acceptability!

# Mycotoxins RASFF Status (Jan-Aug 2008)



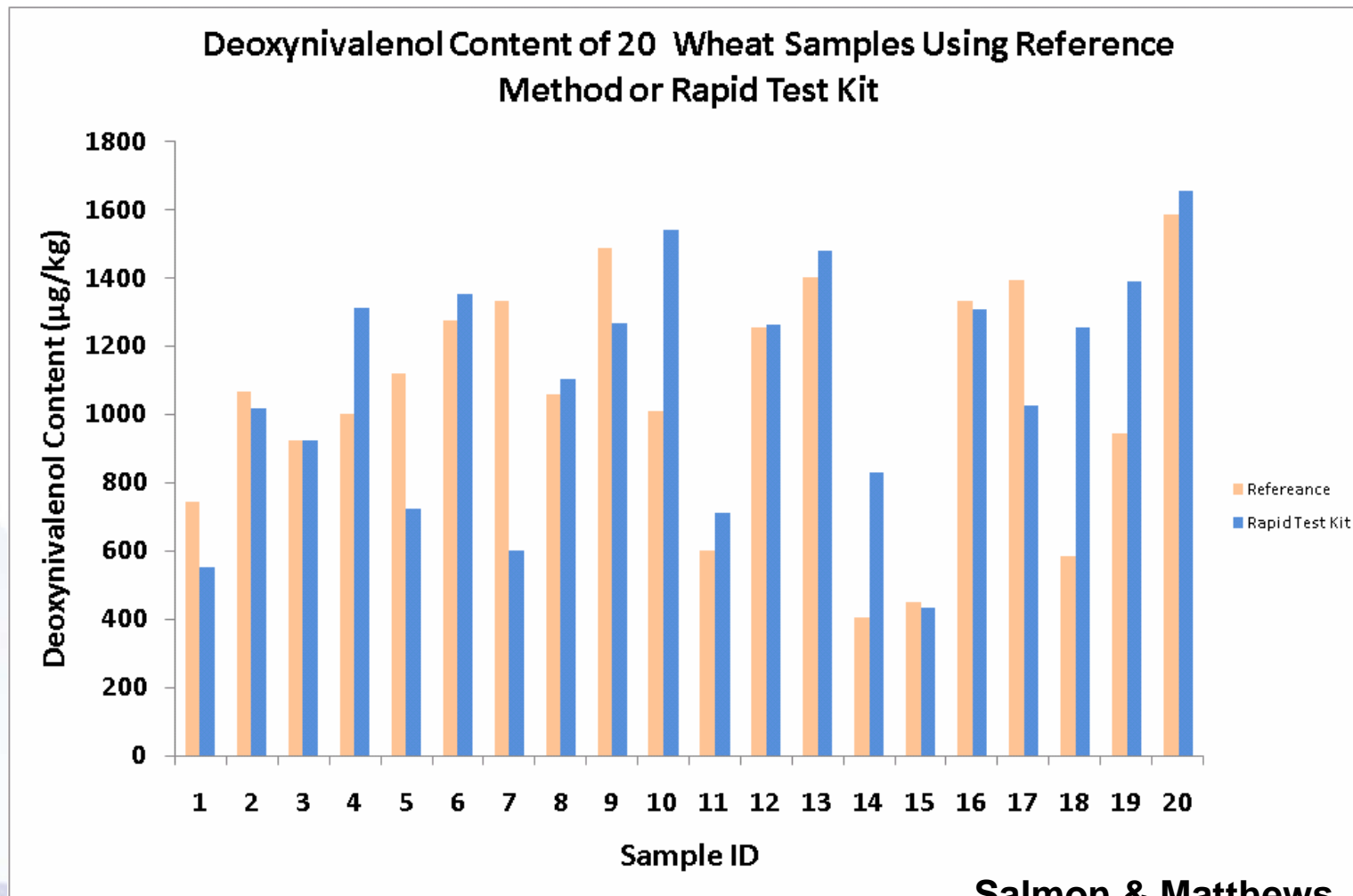
# The Need for Robustness (1)

Is it the lab, the method or the sample?



# The Need for Robustness (2a)

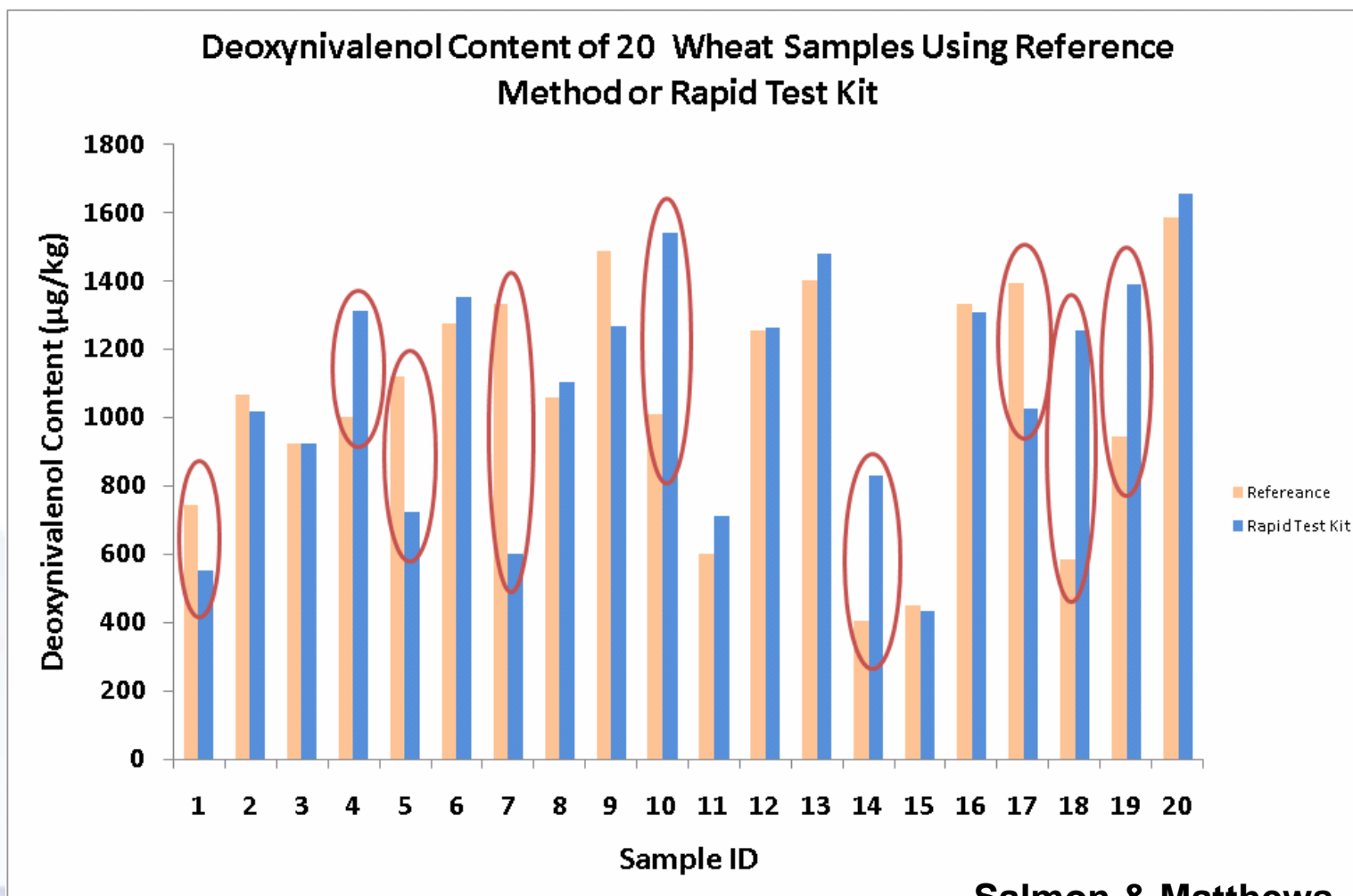
Is it the lab, the method or the sample?



Salmon & Matthews, 2007

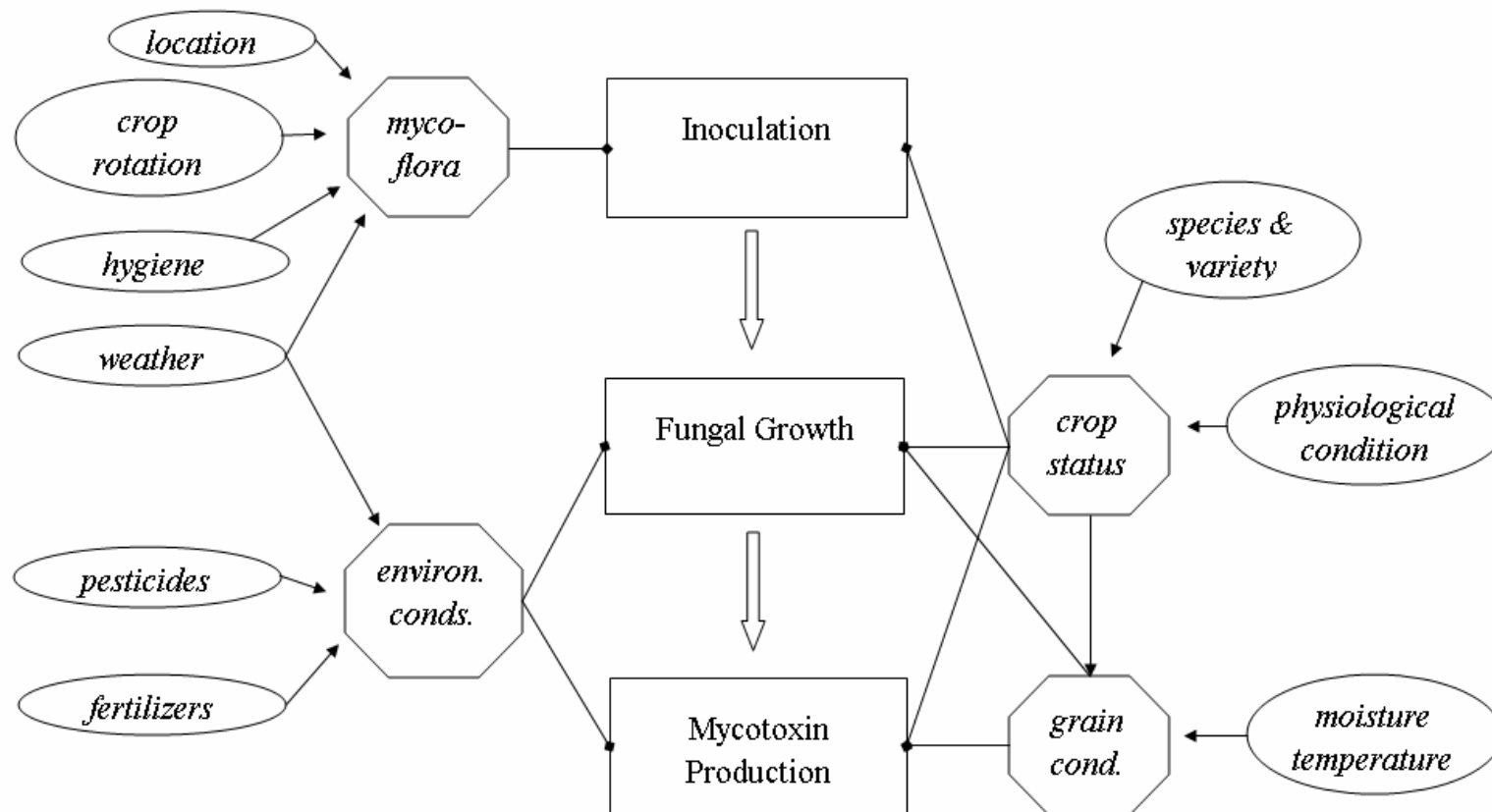
# The Need for Robustness (2b)

Is it the lab, the method or the sample?



Salmon & Matthews, 2007

# Mycotoxins: The Challenge



# Quality Management - *A Short Introduction*

- **Quality Assurance**      **Optimises production and consumer satisfaction (incident prevention)**
- **Quality Control**      **Minimises risk of incident leaving the business**
- **Damage Limitation**      **Minimises risk of incident reaching the consumer**
- **Crisis Management**      **Reduces risk of incident harming the consumer**