Smarter Futures

National Food Control Systems - Laboratory requirements for external monitoring

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The Foodstuffs, Cosmetics and Disinfectants Act, No 54 of 1972 e.g. GMO labelling, MRL’s, etc.

South African National CODEX Contact Point

South African INFOSAN Emergency Alert Contact Point

The Foodstuffs, Cosmetics and Disinfectants Act, No 54 of 1972 e.g. GMO labelling, MRL’s, etc.

National Health Act, No 61 of 2003 e.g. municipal health services

International cooperation:
- World Health Organization (WHO)
- Commonwealth
- United Nations Children’s Fund (UNICEF)
- United Nations
- European Union
- Southern African Development Community (SADC)

Directorate: Food Control

Sub Directorate: Chemical Safety

Sub Directorate: Biological Safety & Programme Support

Sub Directorate: Interagency Liaison & Regulatory Nutrition

Directorate: Food Control

PROVINCES & MUNICIPALITIES
Food laboratories

- Only 2 laboratories in country
- Equipment old
- Severe understaffing
- Chronic skills shortage
- Salaries not market related
- Poor turnaround time on analysis
Multiple regulatory authorities, multiple regulations

- Ministry of Agriculture – Grain, Livestock, Fish etc – “Unprocessed”
- Ministry of Health – any “processed” foods
- Water and Forestry – under Min of Agriculture
- Parastatals – SABS – canned fish; PPECB – exports
- Provincial, Metropolitan and District Authorities
• More than 16 different food regulations enacted under various Acts of Parliament
• Local By-laws still exist
• Antique laws permit “any sealed package” to be a sample and “the Government Chemist” is always right
Three Spheres of Government

• National – responsible for overall coordination and organising National Sampling Plans, Emergency Response to food borne illness etc

• Provincial – responsible within own province; some very active some very weak

• Municipal – as above

• National can not tell Provincial or Municipal Authorities to do anything – only “request”
• Food Control Laboratories report back to “client” i.e. Provincial or Municipal but do not copy National.
• Port Health now report to Provincial Government not National Government (only border authority not to do so)
Fortification Consequences

• Inspectors focus on “easy” targets i.e. Big mills so compliance amongst (smaller rural mills) those feeding the most vulnerable groups is viewed as low.

• Food Control not monitoring pre-mix
Changes

• Organisation revamp to allow direct line of communication and responsibility
• Port hopping to be monitored through linkage of Customs & Excise into system
• Strengthen “extended detention” system and prosecutions for non-compliance – currently prosecuted under “failure to comply with revenue requirements”
• Coordinate analysis results and analyse centrally – any and every investigation, complaint or analysis to be copied to a central facility charged with data compilation, trend analysis and data mapping plus disseminating results.

• Same facility to “look over the horizon” i.e. Early warning of food borne threats in other countries
• Establish “elite unit” for rapid response, method development etc
• Look to ISO 17025 compliance using “technique” accreditation
Information Resources

• Sample size, storage and transportation requirements
• Analysis time, sample tracking and interpretation of results against legislation
• Possible reasons for non-compliance
• Media response
• FAQ section for consumers – especially during/after media blitz
Specific Plans in RSA

• Additives
• Contaminants
• MRL’s
• Mycotoxins
• Nutrition
• Of those 5 plans only nutrition is not a safety issue

• Monitoring for public safety is vastly different – and easier – than monitoring for compliance
Specify Sampling Parameters

• Specific commodity i.e. Fruits, grains etc
• Specific point in food chain i.e. Farm, market, retailer
• For fortification only at the mill
• Do not let inspectors work on random basis
For Fortification

• Food Control, therefore, need to ensure major mills are not “over monitored” due to ease of access

• Question of “risk analysis” – not only to the public from non-compliance but to the fortification programme *per se* because larger millers perceive smaller millers are non-compliant and threaten to pull out in protest
Folic acid and Iron

- Spinach extract and iron filings will conform to specification – analysis will indicate both micronutrients are present and in sufficient quantity - but that is not “fit for purpose”

- Is specifying the iron type a TBT??
- Is specifying a maximum value necessary??
Framework for Monitoring of Flour Fortification Programs
Work Smarter

• Check the pre-mix as “fit for purpose”
• Check pre-mix consumption
• Check production output

• Compliance established in hours not days/weeks

• Low cost, low technology, high level of confidence
Why is checking pre-mix is better?
Next Slide shows

- Coefficient of Variation – Reproducibility 95% confidence
- 14 laboratories
- 7 samples
- Differing levels of analyte (Vitamin A – comparable in difficulty of analysis to Folic acid)

- Concentration decreases
  Error increases