

# **Protecting the Middle East Food Supply from Deliberate Contamination**

**A Global Perspective towards Food  
Defence**

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# Scope of Presentation



- Role of UK Food Standards Agency
- Global food trends affecting the UK
- Some insights from food safety incidents
- A case study of deliberate contamination
- UK approach to Food Defence
- Future Look
- Questions & Answers



# Food Standards Agency

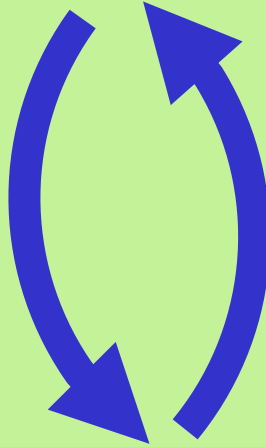
- Established 1 April 2000, UK wide body
- Government Department - but with independent Chair & Board, not a Minister
- *“To protect public health & other interests of consumers in relation to food”.*
- Food safety, nutrition, consumer choice
- Core values - *open & transparent, independent, putting the consumer first*
- [www.food.gov.uk](http://www.food.gov.uk)



# FOOD SAFETY – Emergency Planning & Incident Response

## Emergency Planning

Lead Department concept  
Incident Response Protocol  
Emergency Plans for  
Radiological Accidents  
Food Defence work streams



**Lessons  
Learned**

## Incident Response

Environmental & Food  
Incidents  
Competent Authority  
Incidents Team 24/7/365  
Risk-based approach  
Risk assessment and risk  
management  
Tune to level of emergency



# Some Global Trends (1)



- UK food supply shaped by local, UK, EU and global markets
- Growth in food imports, share sourced from Europe risen in last 10 years
- Maintenance of food safety underpins public confidence in UK's food
- A complex and lengthening supply chain poses considerable challenges for traceability and monitoring, especially of imports



# Some Global Trends (2)



- Nearly 14 million tonnes of food & feed entered UK in 2006 from non EU countries
- In 2006 imported foods accounted for 80% of the rapid alerts UK submitted to EU
- Recent issues include dioxins in guar gum, GM rice, melamine in feed
- Fungal toxins most common problem in imported foods sampled in 2006/7
- Sudan I recall in 2005 estimated to cost business £100M



# Insights from Food Safety Incidents

(clockwise from top left – microbiological, environmental contamination, on-farm, unauthorised ingredient)



# What is an incident?

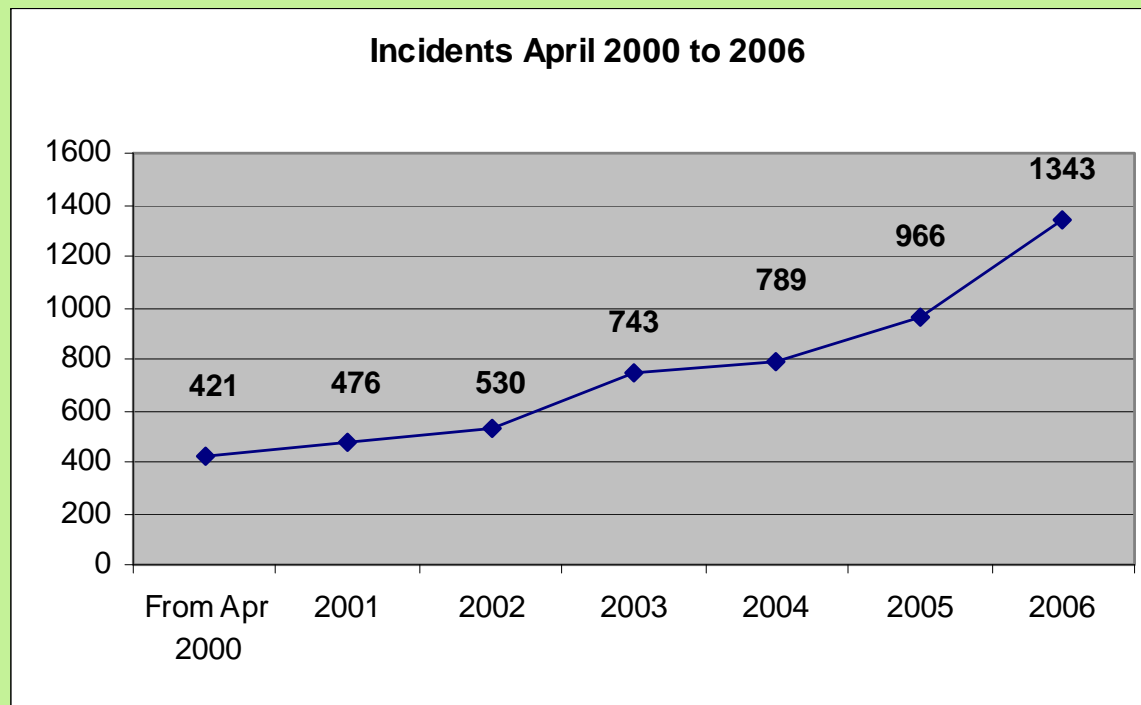
“Any event where, based on the information available, there are concerns about actual or suspected threats to the safety or quality of food that could require intervention to protect consumers’ interests.”<sup>1</sup>

- <sup>1</sup> Food Incidents Task Force ‘Preventing and Responding to Food Incidents’ – March 2007





# Food safety incidents' trend

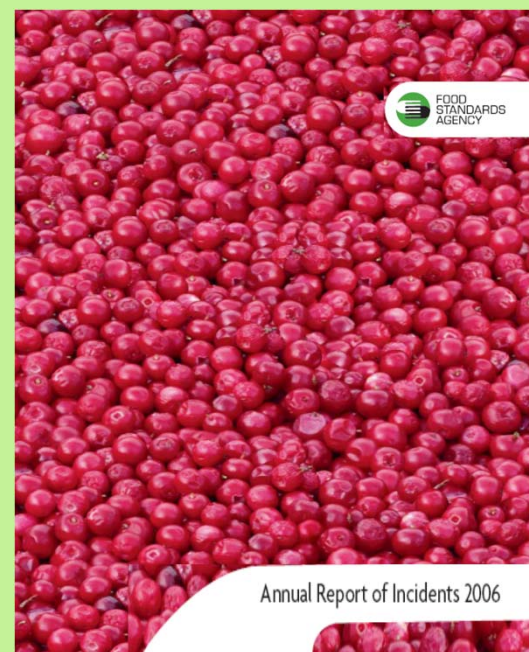


- Final total for 2007 is approx 1310 (to be validated)



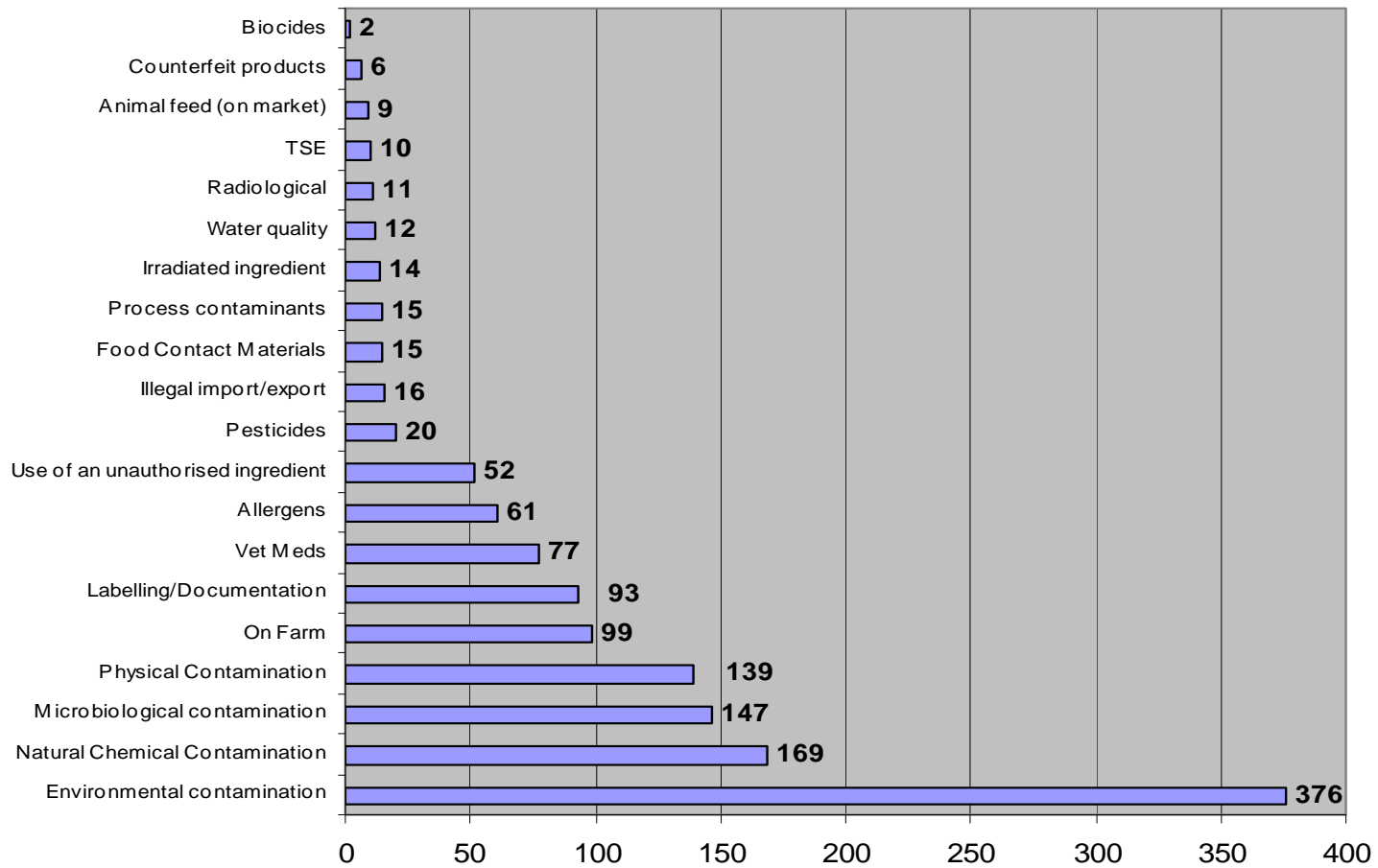
# Incidents 2006

- Annual Report of Incidents 2006
- Published on 15 May 2007
  
- **1343 incidents in UK**
- 10 'High' level (risk x complexity)
- 168 'Medium' level
- 1164 'Low' level



# Incident categories in 2006

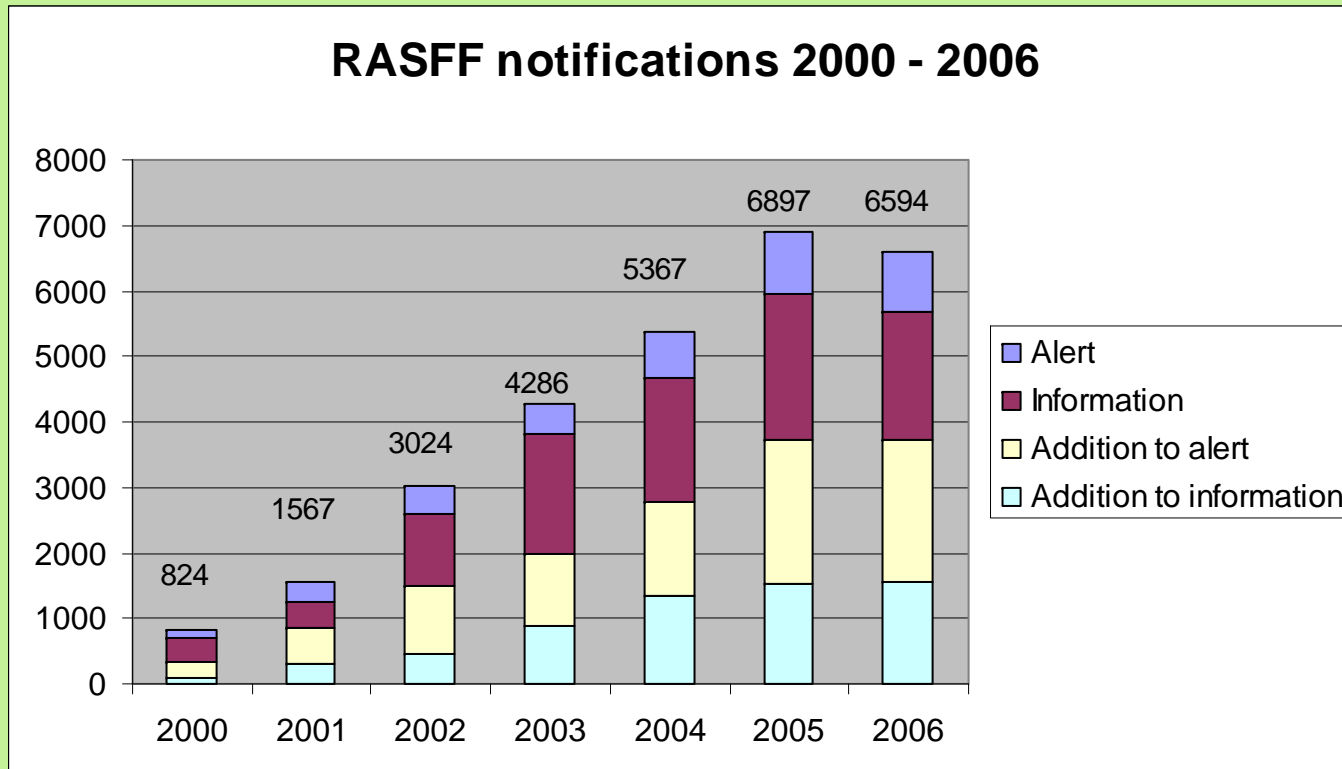
2006 incident categories



# EU RASFF SYSTEM

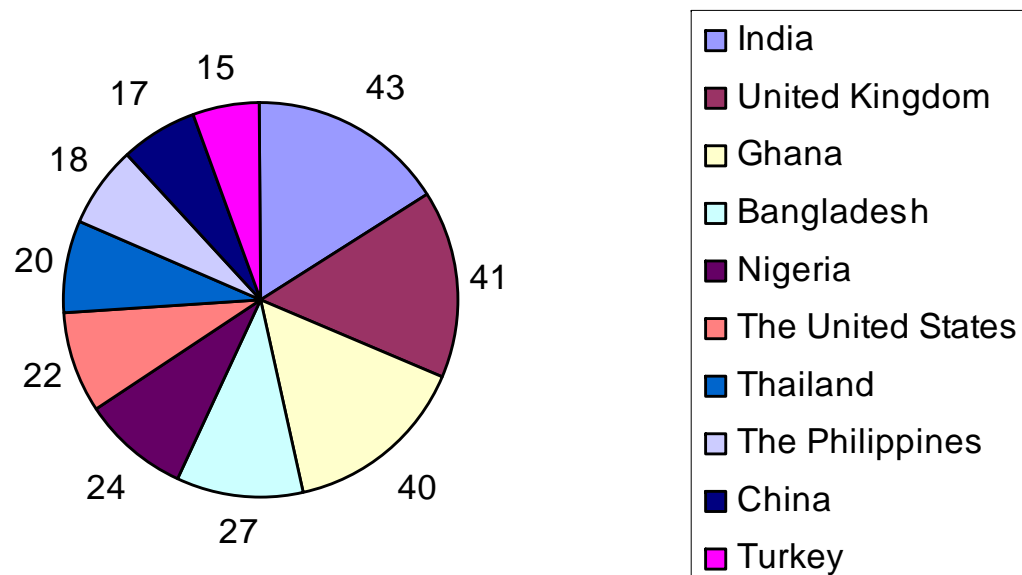


# RASFF notifications 2000 - 2006



# Rapid Alerts, Country of origin 2006

Country of origin for products notified by the UK to the EC in 2006 (major countries)

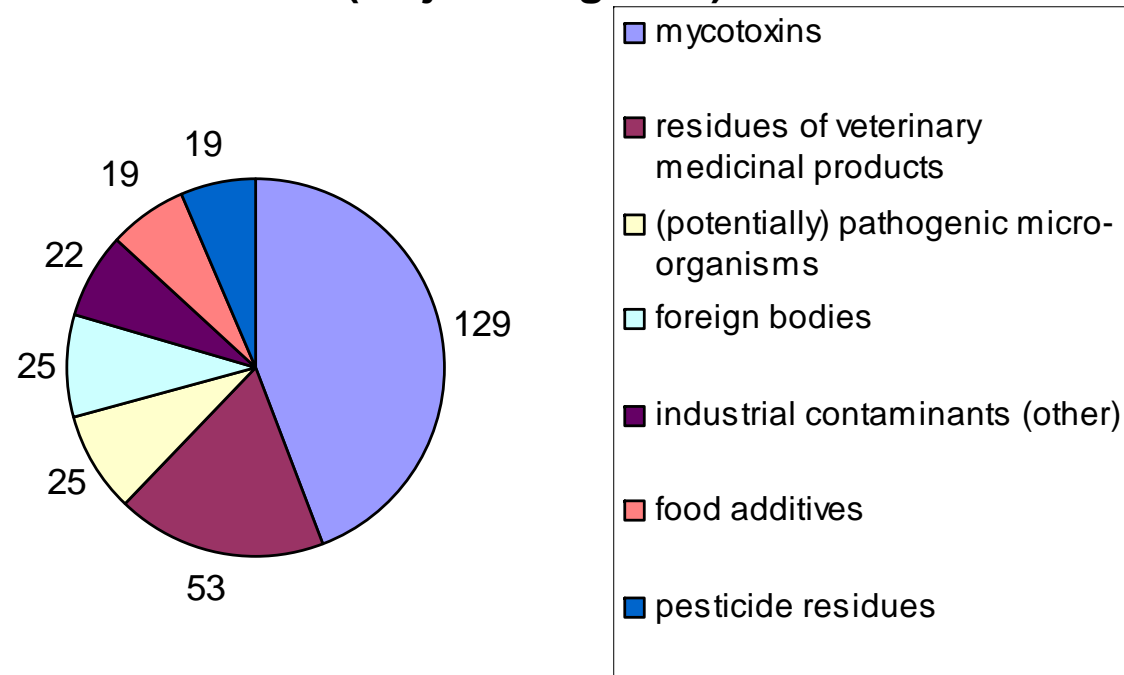


- 88 other notifications were circulated by the UK in 2006 on products from 47 other countries



# Hazard category for 2006 Rapid Alerts

Hazard categories for UK RASFF notifications in 2006 (major categories)



- 84 other notifications were circulated by the UK in 2006 as a result of 15 other hazard categories



# CASE STUDY: SUDAN I





# Sudan I, February 2005



- Sudan I identified in Worcester sauce, in Italy, by customer of UK manufacturer
- Analysis confirmed Sudan I at 3mg/kg
- Originated from contaminated batch of chilli powder (80 mg/kg)
- Worcester sauce supplied to large number of other companies - used to make several hundred different food products



# Sudan I (continued)



- As with previous Sudan I incidents, conclusion was to identify affected products and withdraw them.
- Initial list of 359 products on website on 18th February, updated
- Plus point of sale notices
- Final list of nearly 600 posted on 8th March.
- *Largest food recall in UK*



# Sudan I - Impact



- Size and scale of incident challenging
- Wider management response needed to effect strategic & operational decision-making
- Three week duration, 60 staff on average per week, long days & weekends
- Major workstreams
- Communications



# Cancer-causing dye is discovered in 350 foods

BY CAHAL MILMO

## No safe level for dangerous dye in any foodstuff

By Sam Lister  
Health Correspondent

## Food industry admits that tests for cancer dye are not carried out

By Valerie Elliott  
Consumer Editor

## Supermarket alert on cancer food dye

By Sam Lister  
and Valerie Elliott

## SCARE OVER RED DYE WHICH AFFECTS DNA

By MEGAN LLOYD DAVIES

## CANCER PERIL IN 359 TOP FOODS



# Crisis Communications



- Information Management a major aspect
- In first week, answered over 1200 phone calls & 1000 e-mails/letters
- Over 10 days, approx 2.1 million visitors & 100 million hits to website compared with a daily average of 900K hits.
- Website equipped to deal with 10fold rise in normal traffic - increased 20-30 times at peak
- 1,395 items of media coverage



# Key Message

- Difficult message to convey
- *“Sudan I could contribute to an increased risk of cancer. However, at the levels present the risk is likely to be very small but it is sensible to avoid eating any more. There is no risk of immediate ill-health”.*
- Illegal additive
- Proportionate action

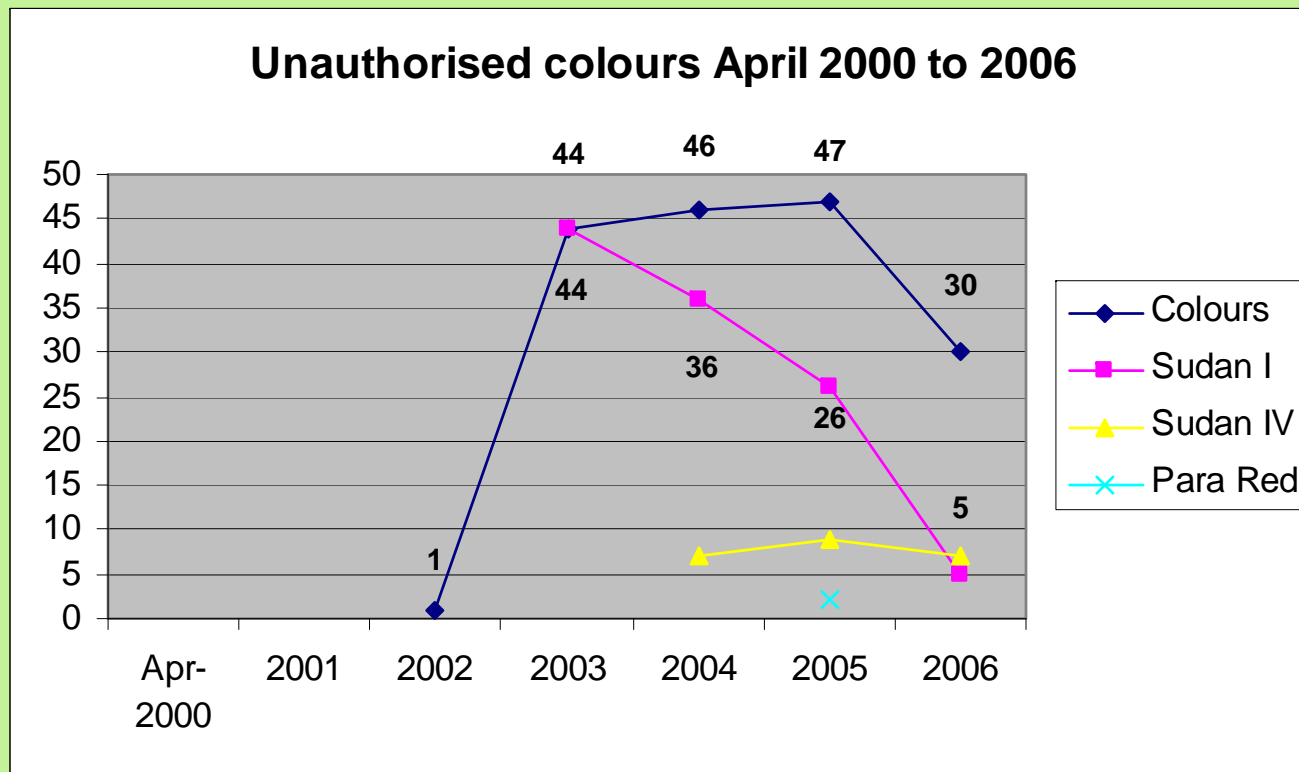


# Lessons Learned & Implications

- Three tier management for complex incidents
- Information Cell to support communications
- Improved stakeholder engagement - “early warning” & liaison *between crises*
- Protocols that work for – and reach – all stakeholders
- Coordinated data sharing & horizon scanning
- Tightening traceability



# Unauthorised Colours- Incidents





# Incidents in General

- Hazards usually well characterised
- Legislative framework across EU
- Roles and responsibilities well developed
- Continuous improvement possible
- Working increasingly with stakeholders
- Significant experience



# Incident Response

- Incident Protocol, standardised approach across Agency
- Incidents Team provide “backbone” 24/7/365
- Team of trained reserves
- Risk-based, from risk assessment to communications
- Lessons Learned



# UK Approach to Food Defence

.....building on food safety experience...

.....what's different... and...

.....what works for us....



# Threats to Food Chain

- Threats not hazards
- Less predictable, possibly targeted & innovative
- Assess plausible threats including
  - Unusual contaminants
  - Likely information deficit
  - Be prepared, think outside the box
- Work with stakeholders



# THREATS TO FOOD CHAIN

Who?

Where?

What?

- Protection
- Awareness

- Plausibility Studies
- Research

- Surveillance
- Response



# Raising Awareness, Building Resilience

- Joined up approach across Agencies
- Advice on protective security
- Building trusted contacts across food industry
- Working with stakeholders – what's different from normal ?



# Plausibility Studies

## Scenarios

- Point of sale
- **Inside food processing chain**
- Animal/plant on farm

## Plausibility Studies

- Which materials, which foods of most concern?
- Workshops to assess specific food chains
- Follow-up site visits
- Collaboration and peer review

## Partnership

- Contaminants experts
- Industry liaison
- Industry Technical Managers
- Health Protection experts



# Plausibility Workshops

- Food chain 1
- Food chain 2
- Food chain 3

Processing  
Conditions  
←  
Palatability

- Microbial material
- Chemical material
- Toxins
- Radiological material

## Outcomes

- Industry awareness of 'threat process'
- Judgements on 'most concern'





# Knowledge & Research

- Database of contaminant properties & effects in foods
- Research on survivability of microbiological contaminants in foods
- Analytical method development to screen for unusual contaminants



# Response – Exercises



- Exercise programme in development *with* stakeholders
- All incident types including deliberate/large scale/complex
- Identify differences , raise awareness , revise protocols
- Communications may require special attention
- Health surveillance systems will be important



# Future Look



**How many more  
timebombs in  
our food chain?**

**New warning  
over poisons in  
farmed salmon**

**Recall of goods increases by a fifth**

**A million  
'food bug'  
chocolate  
bars taken  
off shelves**

**JARS OF  
BABY  
FOOD IN  
CANCER  
ALERT**



# Future Look



- Bringing Incident Response & *Incident Prevention* together
- Align Food Defence work streams *but note differences*
- Working in partnership
- Working across boundaries, including international



# Incident Prevention Strategy

- Building trust and partnerships
- Intelligence gathering and horizon scanning
- Better science, better regulation



# Working in partnership

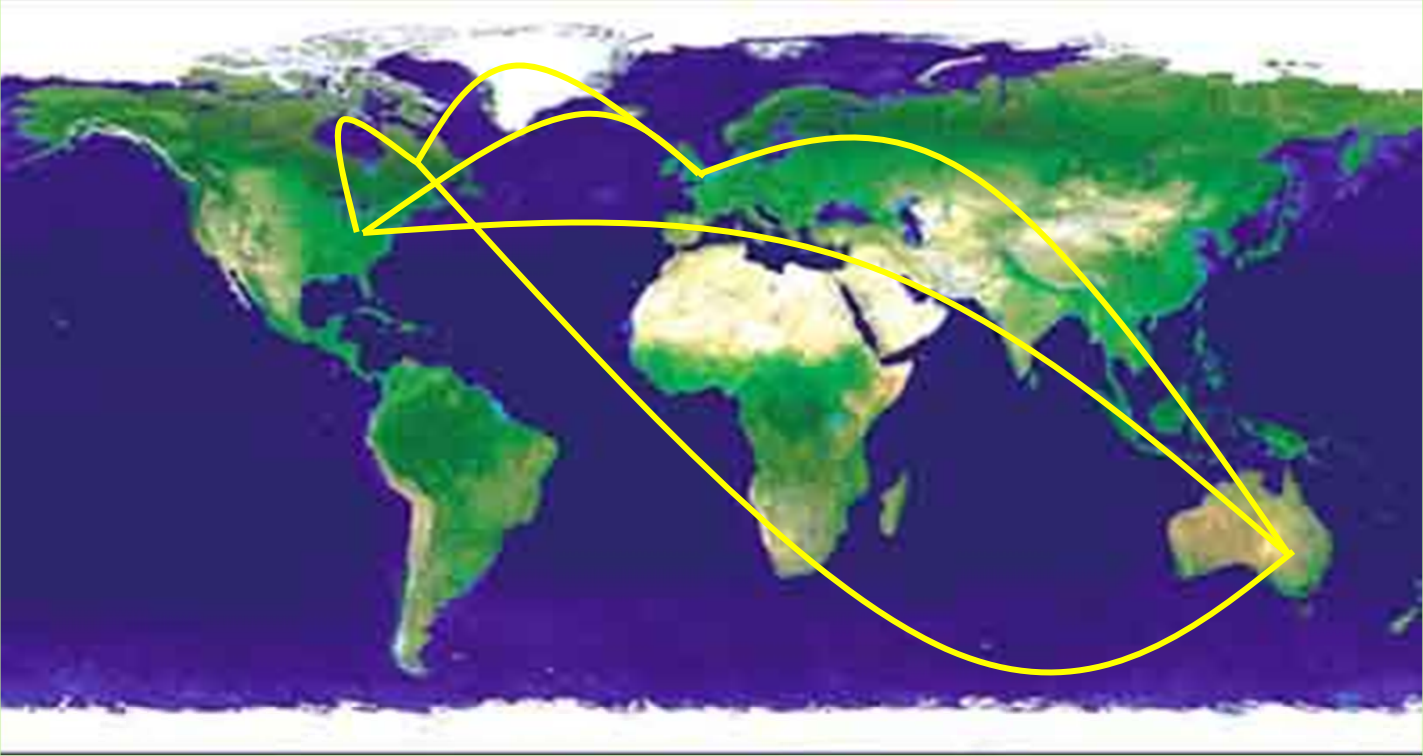




# INFOSAN



# Informal information exchange



# Conclusions

- Learn from food safety incidents
- Promote synergies between incident response and incident prevention
- Assess plausible threats for food defence
- Think beyond the box
- In all areas work with stakeholders before the crisis happens
- Dialogue across boundaries important for the future



# Questions?

