



Foods without Frontiers

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Growing and Protecting New Zealand



From Farm to Fork



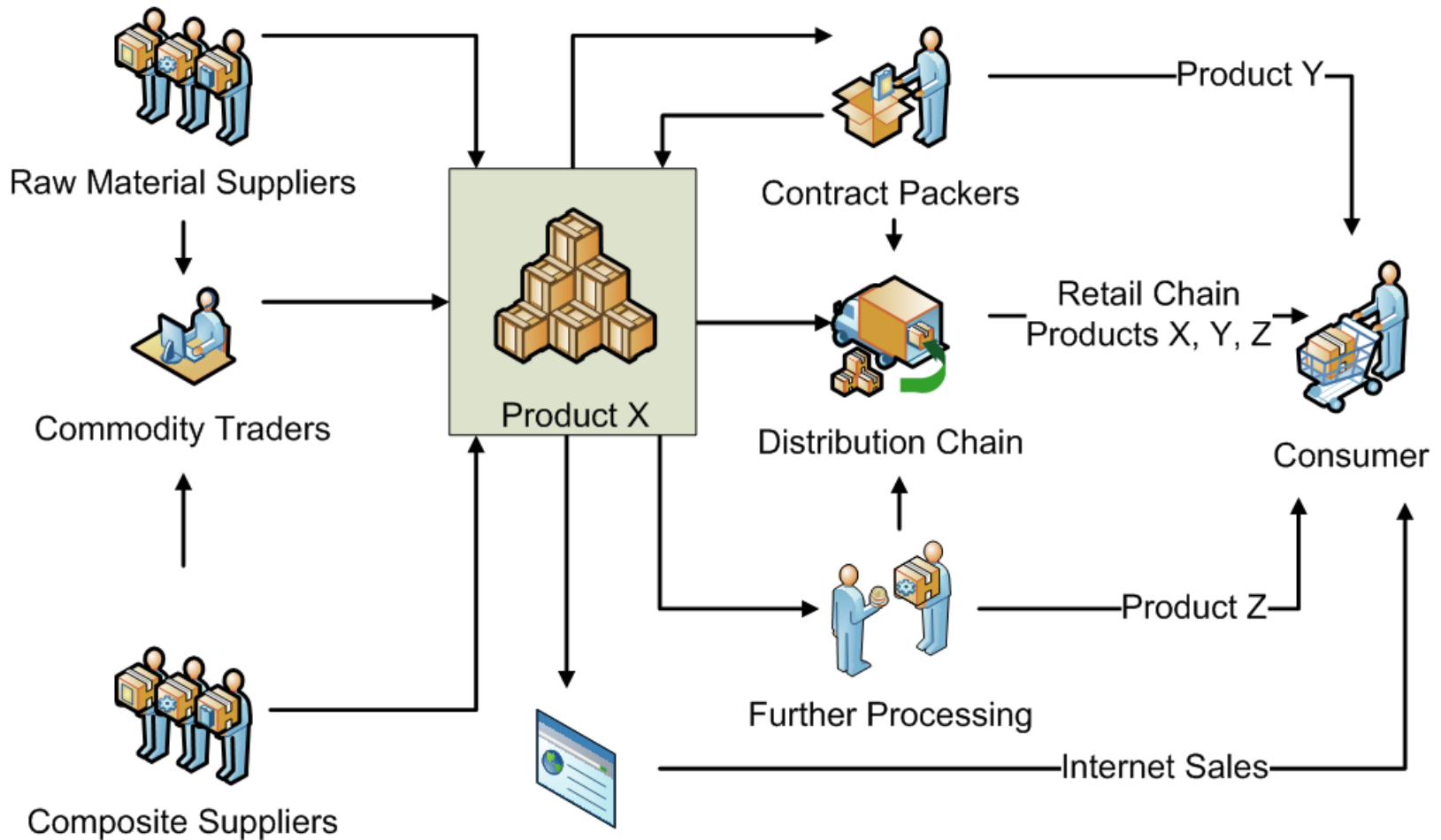
Where does the food actually come from?

The food industry is innovative and the logistics of food production is becoming increasingly complicated.

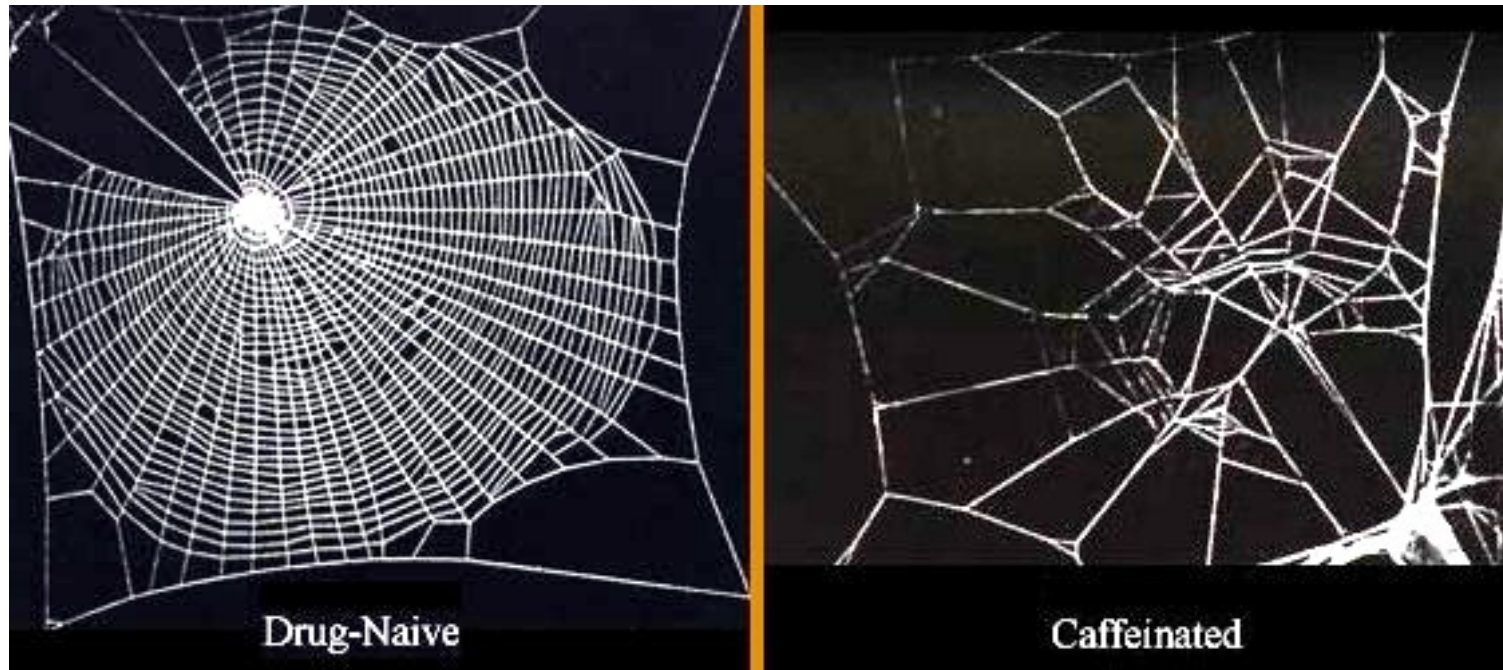
Example: Frozen Vegetables:

- import of frozen diced non-seasonal products
- mixing with domestically grown seasonal products
- packaged, labelled, distributed and sold

The Supply Chain



The real supply chain?



International Food Incidents

- These are becoming more common
- Recent events affecting NZ included
 - Tahini (Salmonella) - Turkey
 - Oxyelite Supplements (Hepatitis) – USA
 - Beef & Beef products (Horsemeat) - Europe
 - Karicare Infant Formula (Botulism) NZ

Gesas Ltd Tahini - Turkey



New Zealand: 3 September 2012

- Outbreak Nov – Dec 2012 - 17 cases reported
- S. Montevideo/ Mbandanka confirmed
- 23 companies involved
- Full product recall

Australia: 21 September 2012

- Stopped and tested at the border
- S. Montevideo/ Mbandanka confirmed
- Product destroyed before distribution

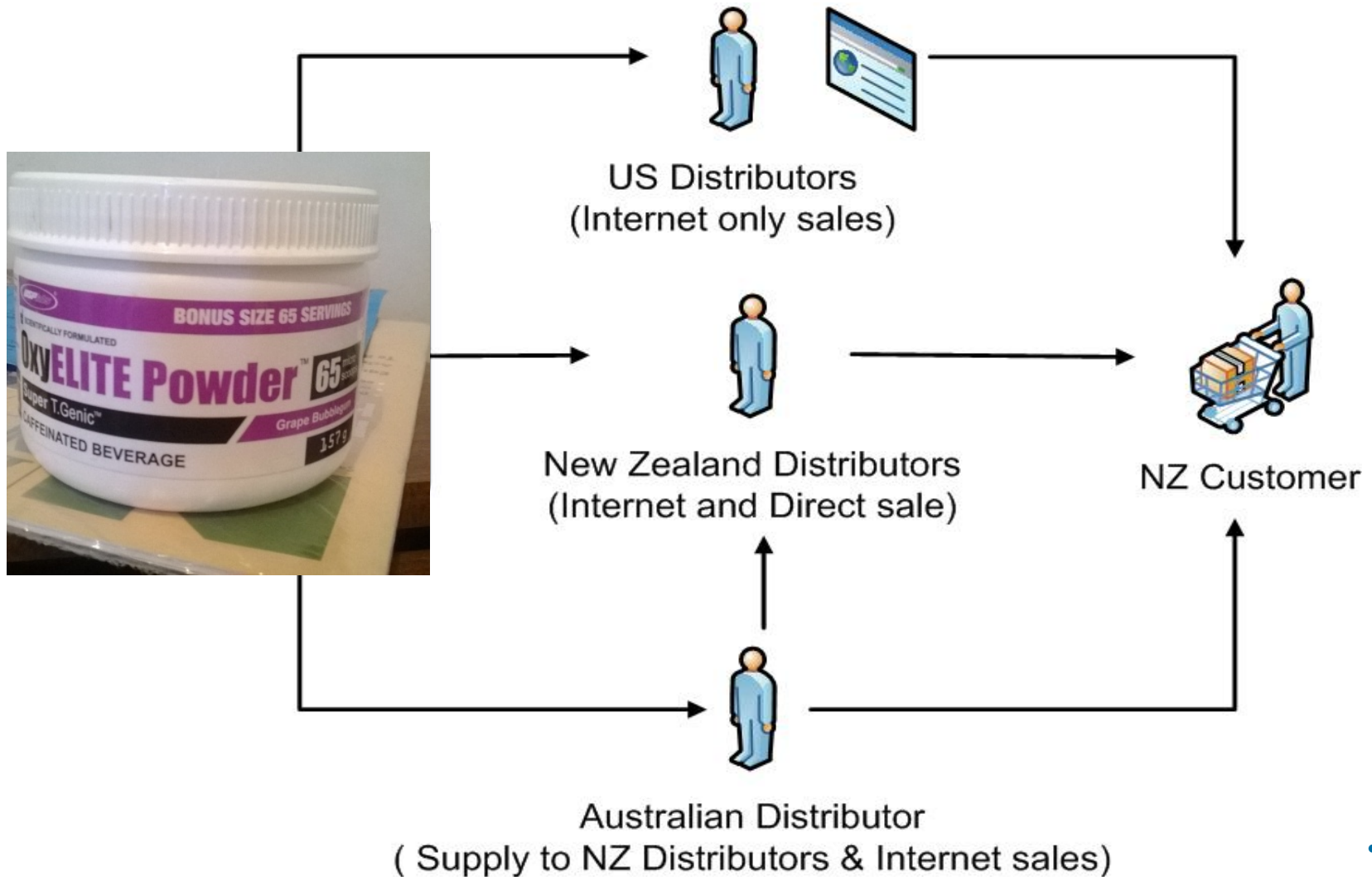
United States: 12 October 2012

- Sold under Krinos Brand
- Outbreak April – May 2013; 16 Cases across nine states – one death.
- S. Montevideo/Mbandanka confirmed
- Full product recall

US P Labs Oxyelite - USA

- Non-viral Hepatitis associated with use of the product.
- Cases primarily body builders
- Hawaii Department of Health:
 - 27 cases and one death
- New Zealand Ministry of Health:
 - 4 cases
- Product Recalled

US P Labs Oxyelite - USA



Horsemeat Scandal 2013 – Everywhere?

Questions asked in New Zealand

- Do we produce horsemeat?
- Could NZ produced horsemeat end up in New Zealand beef products?
- Could we export product contaminated by horsemeat?
- What products contained European horsemeat?
- Did any products containing horsemeat come to New Zealand?

Britain's horsemeat The ABP and Comigel connections

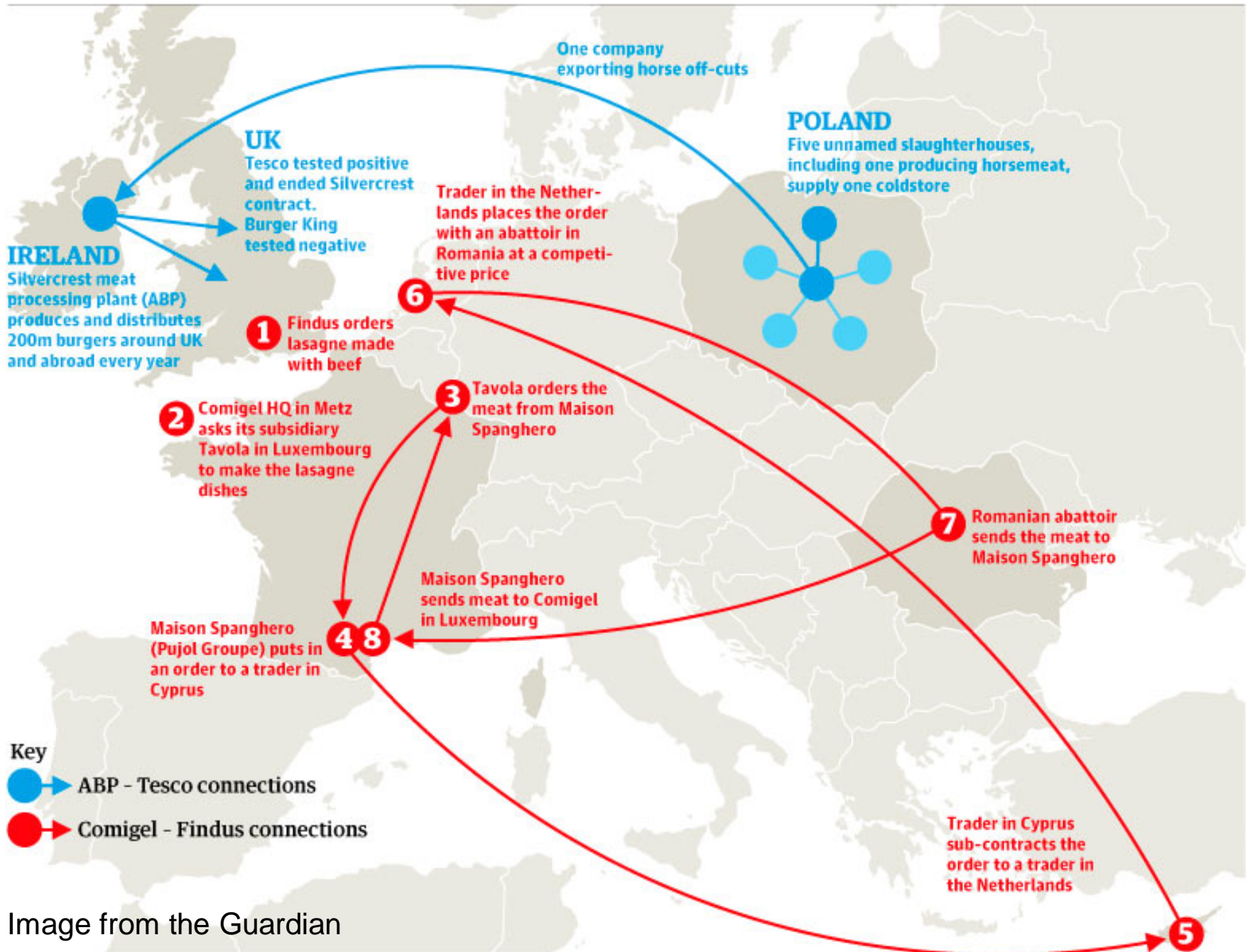


Image from the Guardian



Whey Protein Concentrate (WPC)

Friday 2 August 2013 Fonterra advised MPI:

1. WPC presumed to be contaminated with *Clostridium botulinum*.

2. In market product impacted:

High Risk:

- Growing Up Milk Powder (GUMP): 0 to 3 years
- Infant Formula, 0 to 12 months

Low Risk:

- juice/dairy beverage
- yoghurt
- body building powder

Issues

Define extent of the problem

1. Parameters of contamination

- Origin/source
- Confirmation of organism
- Range of contaminated batches

2. Location/Destination of implicated product

- What is it in
- Who has it
- Where has it gone

What did we know?

- Fonterra produces 30% worlds dairy products
- Single point of contamination
- Multiple processors
- Multiple packers
- Multiple brands
- Contaminated ingredient: 38 Metric tonnes (42 US/37 UK tons)
- Affected product: 900 Metric tonnes (992 US/885 UK tons)
- Botulism + Babies

WPC 2013 Points to note

- **All** product manufactured under a strict, well regulated, HACCP based process
- **All** processing thoroughly documented
- **All** plants subject to external verification (audit)
- Most export was under MPI controlled certification
- **This incident was in a 'top of the line' food industry**

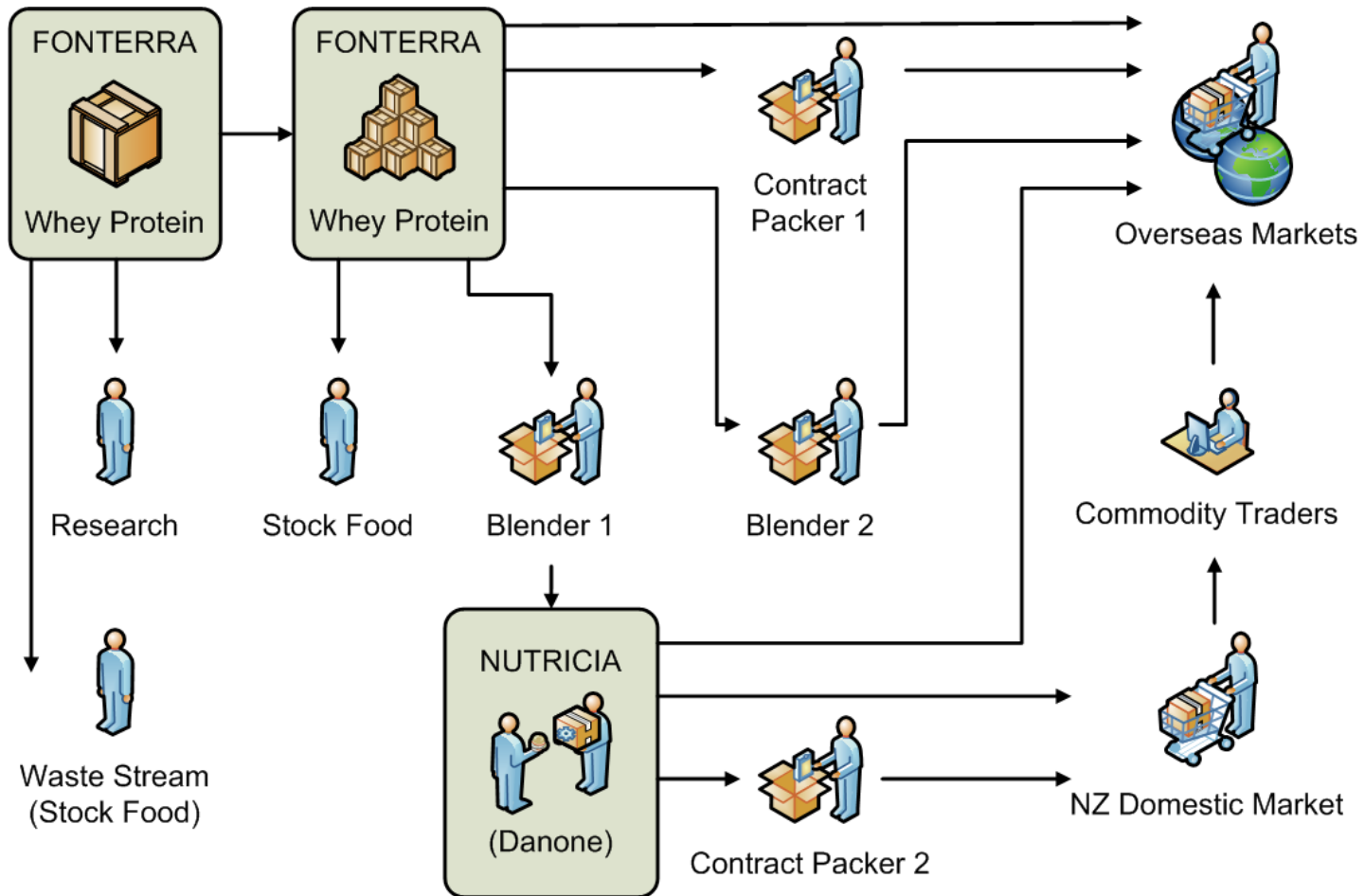
WPC 2013 Issues

- Three cyphers contaminated (Manufacturing date)
- Several products could be made on site on any day so cypher alone could NOT identify implicated product.
- Product ID was therefore by:
 - cypher
 - batch code
 - pallet numbers
 - container seal number and/or export certificate

Where did come from and where did it go?

- Product processed in New Zealand and Australia
- Product sold in:
 - China
 - Hong Kong
 - New Zealand
 - Australia
 - Vietnam
 - Saudi Arabia
 - Philippines

WPC 2013 (Simple flow chart)



WPC 2013 – Even more complex...



WPC 2013 Tracing Issues

- Key identifiers used were batch codes...but some batches were split for different customers
- Different companies had different tracing systems
- Product reconciliation was problematic especially where WPC was an ingredient
- Detailed formulation information was required

What did we find

- Co-operation within MPI was exemplary
 - Relationships with manufacturers, packers, and exporters was excellent
 - Identification of extent of issue made more complex by company traceability systems
 - MPI Certification process allowed prompt ID of much affected product that had been exported
 - A flourishing non-certified export trade of domestic market Infant Formula into Hong Kong
 - Organism confirmed as *Clostridium sporogenes*
- www.mpi.govt.nz • 23



Government Inquiry into WPC Contamination Incident

- The growing complexity of supply, manufacturing and distribution chains presents real hurdles to effective product tracing.
- Complications within the overall tracing process were described by one interviewee as “one of the most complex challenges a company has to deal with”.



Government Inquiry into WPC Contamination Incident

Findings:

- New Zealand's dairy food safety system is fundamentally sound and as effective as any in the world...
- New Zealand's regulatory model is consistent with international principles...and is reflecting international best practice.

Government Inquiry into WPC Contamination Incident

Recommendations on Traceability:

- Have all traceability provisions in one piece of regulation
- Increase the level of prescription for traceability, particularly for consumer-sensitive products
- Improve the linking ability of different company systems
- Carry out more testing of traceability systems.

Traceability

- One up one down - the “what”
- The problem lies with the “how” especially between all the players in the food and logistics industries



Worst Case Scenario?

- WPC investigation was efficient and effective, but may have been quite different.
- What if one or more of the companies involved:
 - Had poor record keeping
 - Was not in our sphere of influence (NZ or Australia)
 - Were concerned about blame or litigation
 - Were uncooperative
 - Had selective recall.....or simply lied?



Information for an effective international response

- Food recalls are:
 - becoming more frequent and more complex
 - commonly extending over state, provincial and international boundaries
- Information exchange between agencies is often poor
- How can we improve?

Typical Product Recall Notification

ABC Pty Ltd is conducting a consumer level recall. The details are as follows:

- **Product Name:** Green Time Natural Coconut Drink
- **Weight:** 510ml
- **Description:** Green can
- **Date Marking:** All Best Before dates up to and including 20 JUN 2015
- **Country of origin:** Taiwan
- **Reason for recall:** the presence of an undeclared allergen (milk)





Your turn

- You have received this information by email from an overseas food safety agency that believe its been exported to you.
- ABC Pty Ltd are not in your jurisdiction, nor even in your own country.
- Your manager requires information ASAP
- How do you know it's on the market in your jurisdiction?
- **Write down a couple of ways you can confirm if its available**

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A few ways

- Google
- Customs Import Data
- Contact the major distribution centres e.g. Walmart, Tesco, Woolworths
- Arrange specific visits to likely retailers – e.g. Specialist Asian food shops for this particular product
- Ask Environmental Health Officers/Food Officers to look during routine visits
- Anything else?

Issues – Reality Check

- Information communicated between countries:
 - Is often not timely
 - Lacks critical data
 - May not be received
- Being provided information as shown for ‘Green Time Drink’ will NOT usually enable border detection

Limitations to Border Information

- Border Clearance relies on the World Customs Organisation Harmonised Tariff System (also known as Harmonised System 'HS' Codes)
- The Tariff was not designed with food safety in mind
- The producer/manufacturer may not be the exporter
- The importer may not be the retailer/distributor
- Targeting imported product at the Border is limited without better information.



HS Tariff Code Example

22.02 Waters, including mineral waters and aerated waters, containing added sugar or other sweetening matter or flavoured, and other non-alcoholic beverages, not including fruit or vegetable juices of heading 20.09:

2202.10 – Waters, including mineral waters and aerated waters, containing added sugar or other sweetening matter or flavoured:

2202.10.01 00A – – In metal containers

2202.10.09 00B – – Other

Useful Documents

- Codex Principals and Guidelines for the exchange of information in Food Safety Emergency situations (CAC/GL19-1995) – updated in 2004
<http://www.fao.org/docrep/009/y6396e/y6396e07.htm>
- WHO/FAO Guide for developing and improving national food recall systems-2012
http://www.who.int/foodsafety/publications/fs_management/recall/en
- ISO 22005:2007 Traceability in the feed and food chain - General principles and basic requirements for system design and implementation
http://www.iso.org/iso/catalogue_detail?csnumber=36297



Codex International notification requirements: CAC/GL19-1995

1. The nature of the food safety emergency
2. Detailed identification of the food concerned
3. Affected and potentially affected populations
4. Shipping and related information
5. Action taken to reduce or eliminate the hazard
6. Full details of the designated official contact point and the relevant competent authority.



WHO/FAO Food Recall Guide

1. Identity of the food business operator and person responsible for the recall (and/or contact point).
2. Identification of the reason for the recall
3. Identification of the product:
4. Distribution details (if available)
5. Other information (if available)

Nothing is a silver bullet....

These documents are not linked

- Even if all recall data is provided as per the WHO/FAO Recall Guidelines, product may not be located.
- The Codex Document CAC/GL19:1995 is better, but most of the time a recall is not an Emergency.
- They provide the “What” not the “How”

What information does the regulator need?

What the product is

- Brand
- Quantity
- Batch/Lot
- Size

What the problem is

What else does the regulator need?

How the product was distributed

- wholesalers
- distributors
- retailers

For cross-border events we need more...

- Shipping and related information including name and contact information for the
 - exporter
 - importers
 - consignees
 - shippers
 - shipping dates
 - tariff codes used

Current traceability systems

- GS1 – Barcodes
- EU Healthmark
- RFID Tag (Radiofrequency Identification)
- In-Company systems driven by contract requirements
- Off the shelf software solutions

The future?

For better regulatory oversight of recalls:

- Information requirements between systems need aligning
- Data exchange between businesses, and between regulators needs improvement
- Contacts need to be kept up to date
- End to end testing is required

But the future hasn't happened...

Next time you forward information about a food incident provide as much information as possible

Update messages when more information comes to hand

And ask for confirmation that the information has been received!

Good communication = effective response



Thank you – Stephen Bell