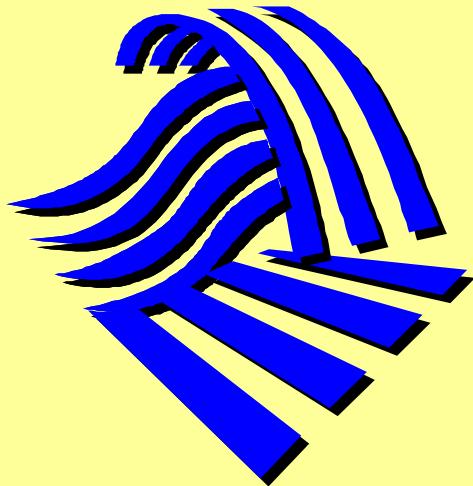


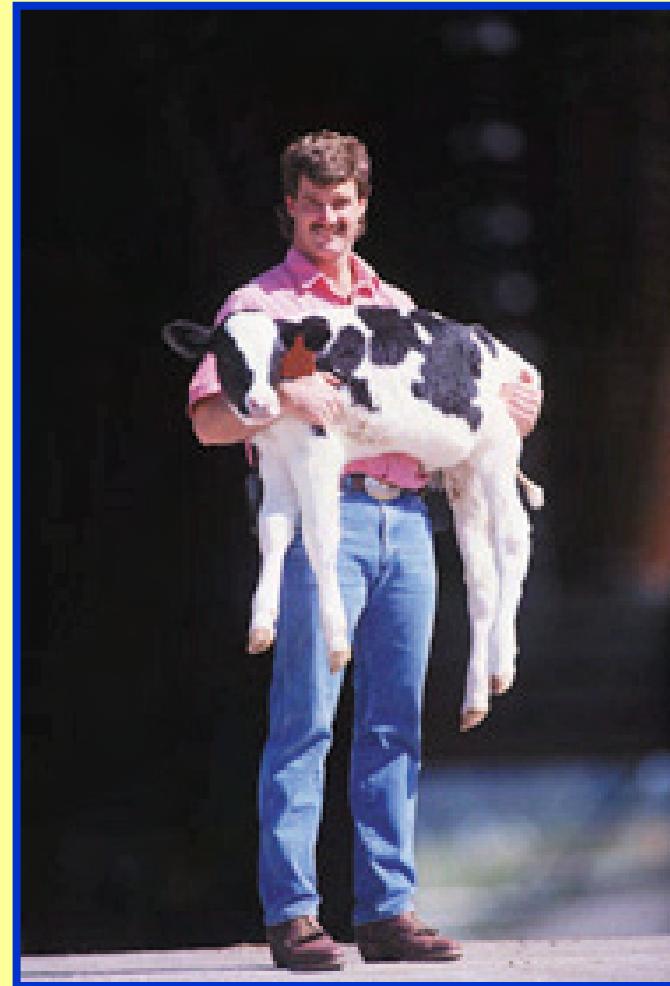
## *Science & Practical Experiences in Food Safety*



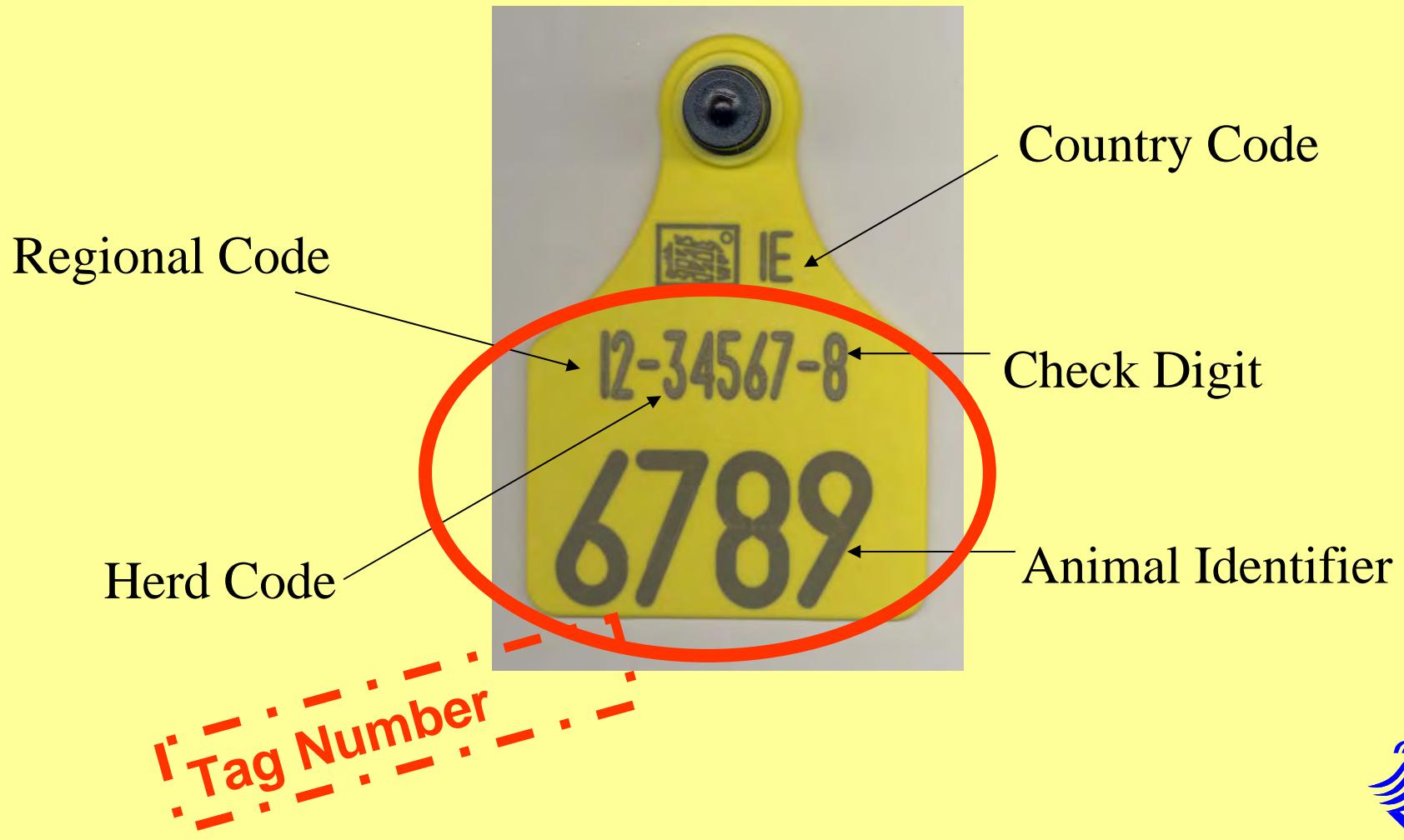
**Raymond Ellard**  
**Director Audit & Compliance**  
**Food Safety Authority of**  
**Ireland**

# Calf Birth Registration

➤Herd owners  
must register  
birth of each  
bovine animal



# Bovine Tagging



A photograph of a large, reddish-brown cow standing in a lush green field. The cow is facing towards the right of the frame. Above the cow's head is a white thought bubble containing text. The background shows a fence and some trees under a clear blue sky.

Born in Ireland  
Reared in Spain  
Slaughtered in France  
Eaten in Germany



➤ Food fraud is a problem for all countries



# Not a new issue

**Food Offered for sale must...**

- be of “.....the Nature, Substance and Quality demanded.....” (Sale of Food and Drugs Act, 1875)



# About 2000 Years Ago...



# And so it goes on today...

**Banana fraud forces  
plant closures**

BBC News



**We are Doing Great**



**200 Jobs Lost**



# Some Are Easy To Spot...

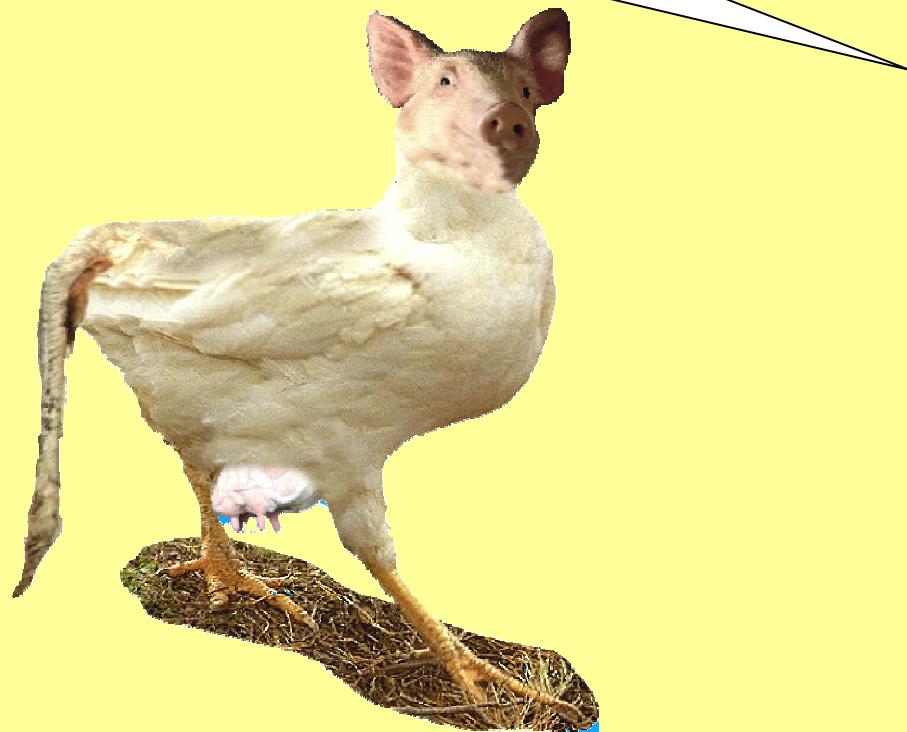
- If You Are Aware
- If You Familiar With the Language
- If You Have Good Eyesight
- If You Speak the Language



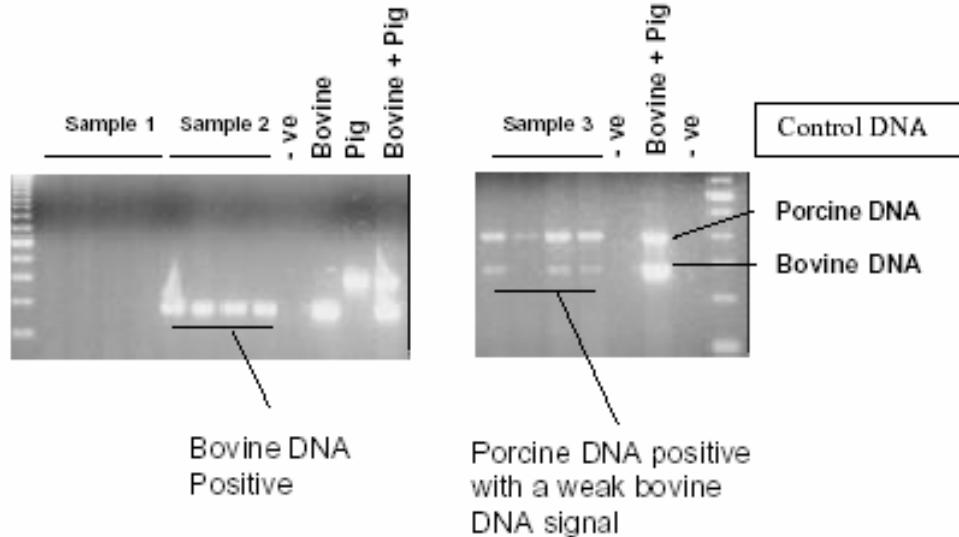
Methanol Found in Counterfeit Kirov Vodka



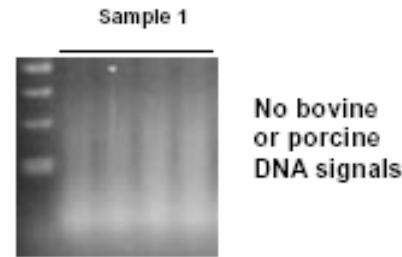
When is a chicken not a  
chicken?



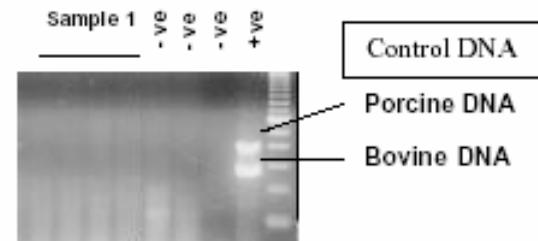
## Imported chicken fillets



## Irish whole chicken controls



## Irish chicken fillet controls



# FSAI Labelling & Traceability Audit

## Key Products:

Beef



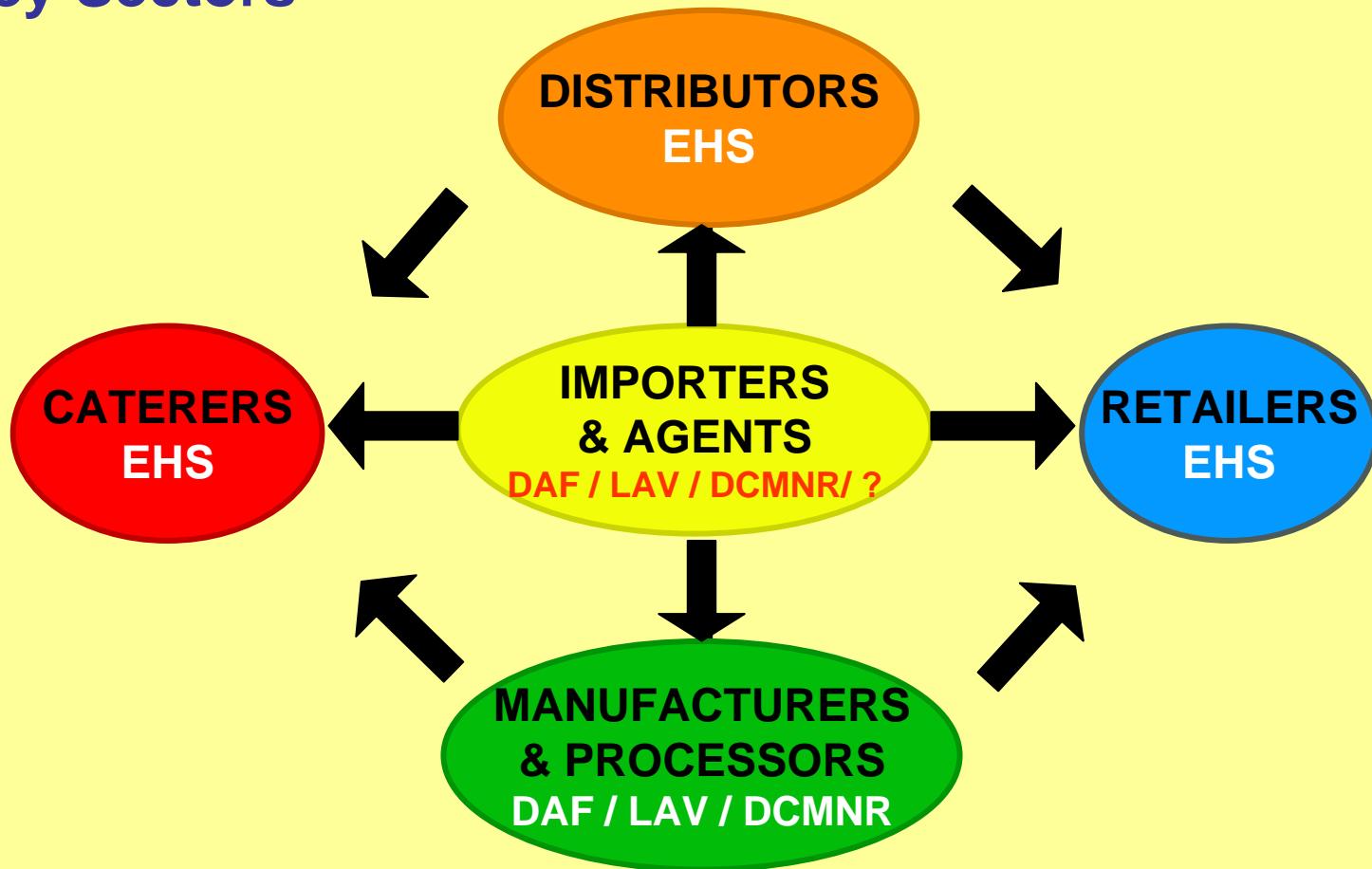
Fish

Chicken



# FSAI Labelling & Traceability Audit

## Key Sectors



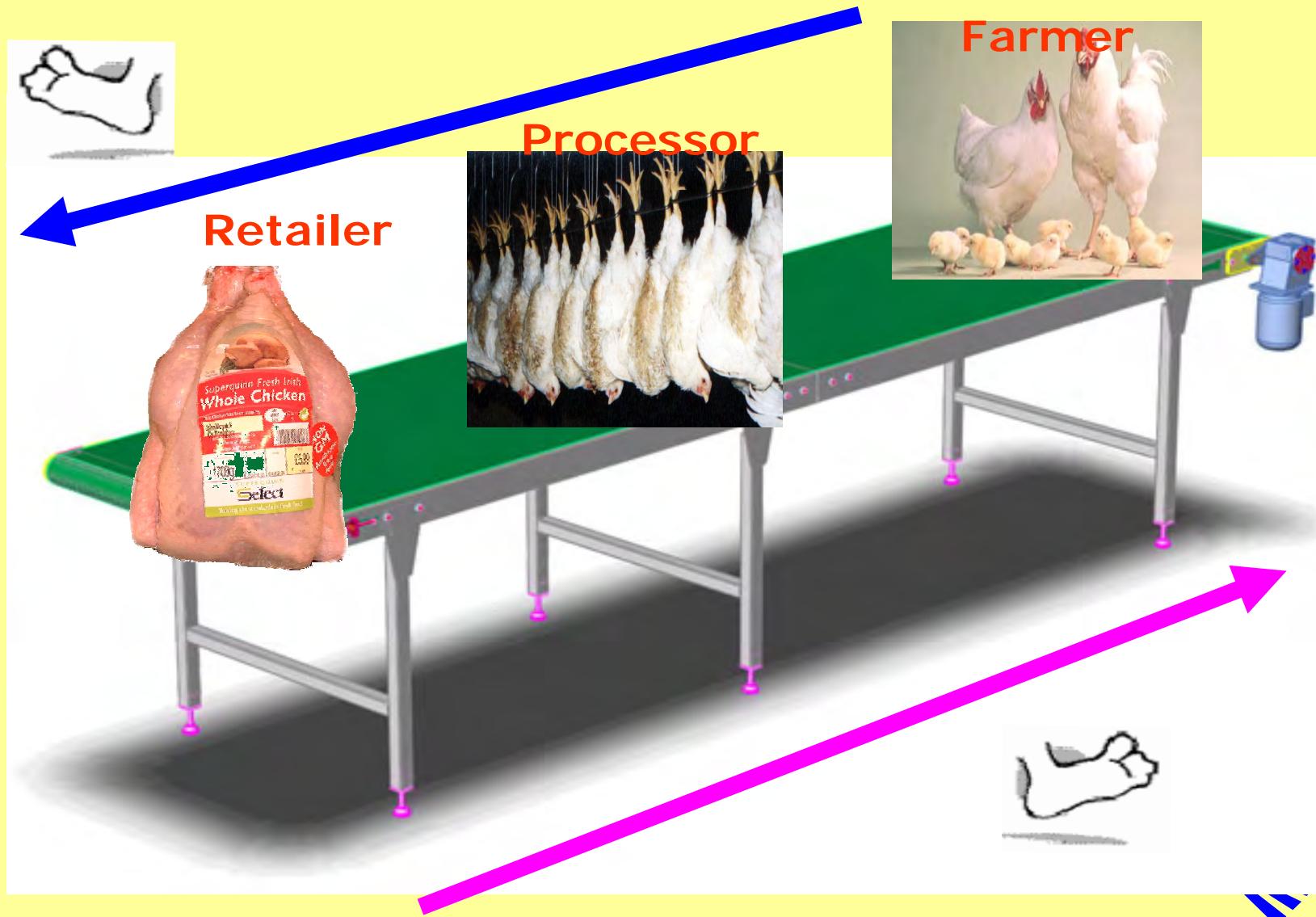
# REGULATION (EC) No 178/2002

## Traceability:

Legal Requirement: 178/2002



# “One Step Forward” – “One Step Backwards”



# FSAI Labelling & Traceability Audit

Type of Premises	No. Visited
Agents	5
Wholesalers/Distributors	9
Processors	29
Hotels/Restaurants	12
Retail outlets	31
Cold stores	2
Slaughter Plants	2
Total	90



# Some findings – not indicative of widespread problems

- Beef products labelled as Irish but originated in Brazil
- Belgian chicken leaving Irish plant as 'Produced in Ireland' and with an Irish health mark
- Product supplied as Irish salmon can in fact come from Scotland
- Salmon labelled as wild but the product was farmed
- No batch numbers
- Not possible to link batch code on display with product on counter
- Incorrect batch or approval numbers
- Obsolete plant number



# FSAI Traceability Audit

## 2003/4

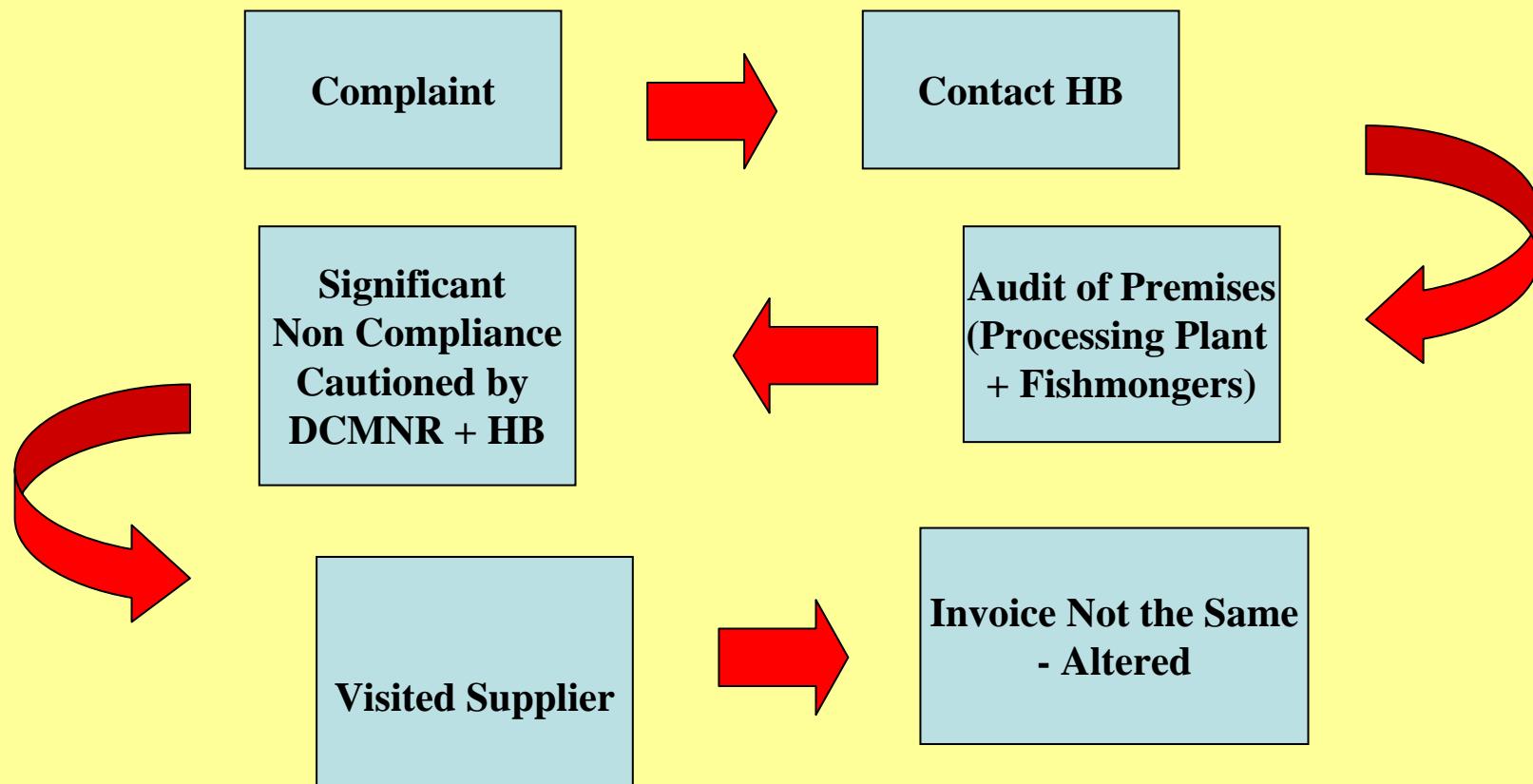
### ➤ Some Findings :

In some premises **no** adequate systems for traceability or recall were in place.

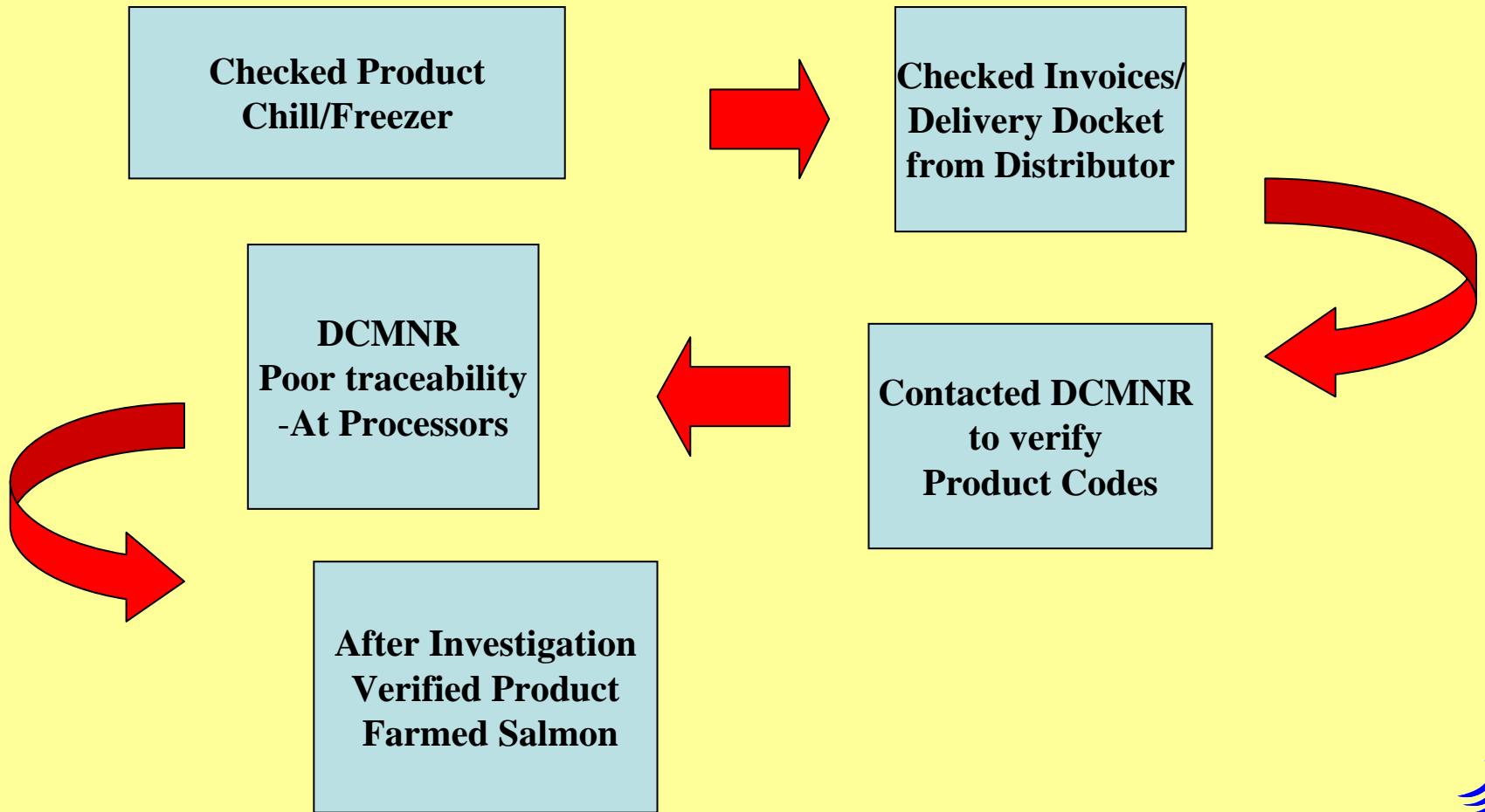
- Insufficiently labelled products resulted in difficulty tracing them back to their source
- Commercial documentation available for inspection was inadequate to demonstrate traceability
- Traceability was possible one step back but not one step forward
- Splitting of batches or pallets of product contributed to the loss of traceability



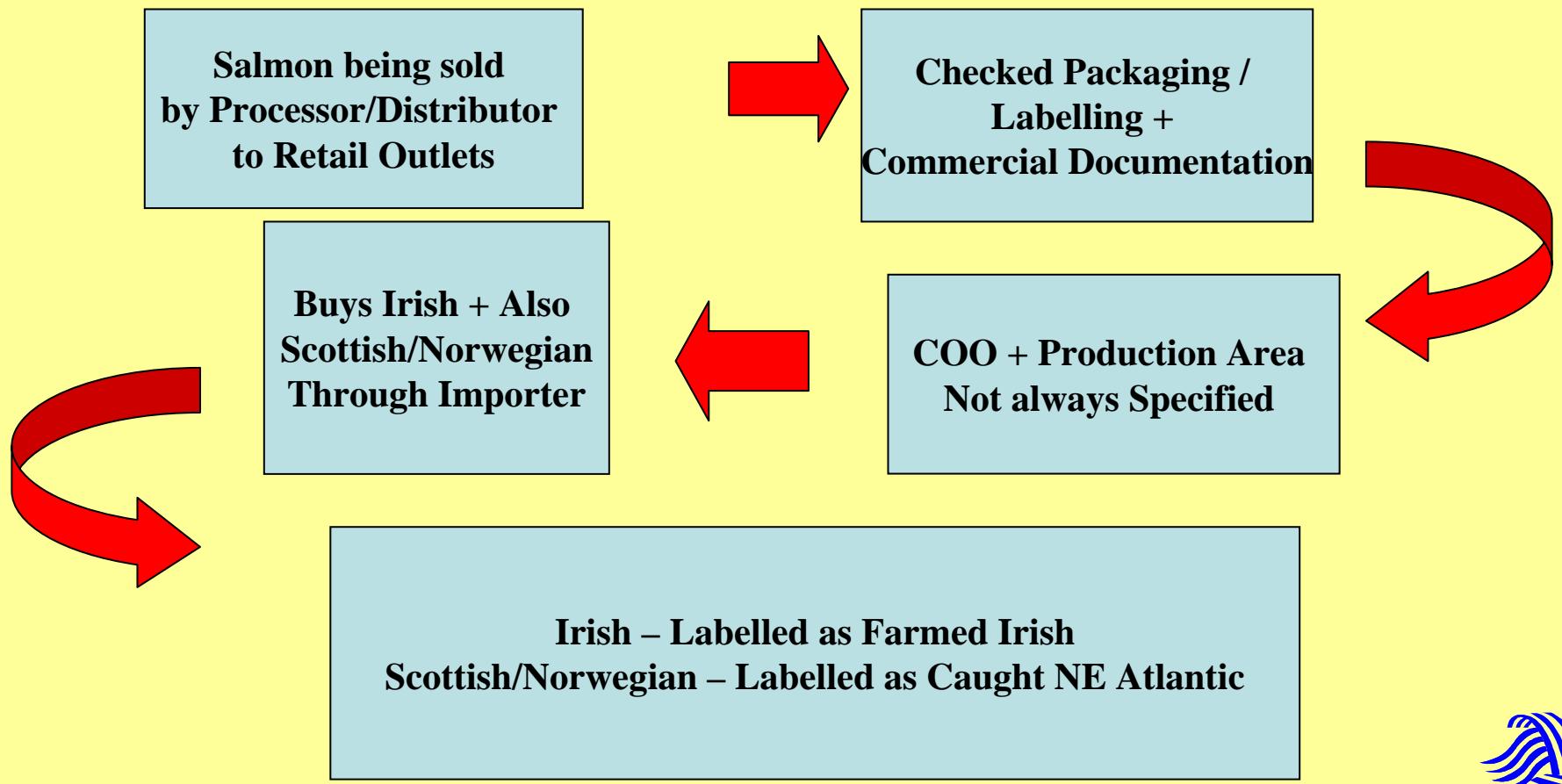
# Complaint Wild Salmon



# Wild Salmon Displayed on Menu



# Salmon Country of Origin + Production method not Specified



## Wet Fish Display Counter

*"All our fish are caught off the west coast of Ireland"*

*Nile Perch*

*Farmed Scottish Salmon*



# Some conclusions

- Traceability & Labelling are interdependent
- To Verify Traceability
  - requires a different method of working
    - checking commercial documentation including invoices, accounts or computer systems
    - Requires cross agency co-operation
      - as we have to follow trails
      - get information from other sources



# Honey

➤ Irish Origin?



# Imports and Exports



# We Care Where Food Comes From..

1. Official identification marks easily forged.

2. Improved security of the integrity of such marks is worth considering.

3. Authentication of ID marks takes a lot of time



# Case Study

- (Sudan) Red hot chilli peppers



# Sudan Red 1

- 474 products recalled in 3 days
- €130+ million cost
- Food Safety Authority of Ireland
  - 50 products recalled
  - 89 press queries
  - 56 radio/TV interviews
  - 700 consumer telephone calls one day
- Nobody was ill!. Nobody died



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Consultative Council

FSAI Subscriptions

• **Tandoori Masala Spice Contaminated with Sudan red 1**

**Alert Notification: 2004.02  
(RASFF No 2003-435)**

21 January 2004

**Category I: For Action**

**Country of Origin:** UK

**Manufacturer:** TRS Wholesale Company Ltd Brand

**Product:** Tandoori Masala Barbecue Ground Spice

Tandoori Masala Ground Spice

Tandoori Masala Natural Clear Powder

**Description:** 100g, 400g and 1kg clear plastic bags

**Best Before Date:** All Best Before dates up to (and including) July 2005

**Batch Code:** All batch codes with the above Best Before Dates

**Message**

The FSAI has been notified that a variety of products produced by TRS Wholesale Company Ltd, UK have tested positive for the presence of Sudan red 1 following official testing carried out in the UK. This has been done as part of the ongoing controls in response to Commission Decision 2003/460/EC on the presence of the dye in hot chilli products.

Sudan red 1 may be carcinogenic and is not permitted as an additive in any foodstuff. Control measures on Sudan red 1 are under the provisions of SI 471 of 2003.

# SUDAN 1: THE BUNGLES THAT PUT POISON ON OUR PLATES

The toxic dye which sparked the lastest food scare has probably been in our diet for a decade or more.

**Jonathan Ungoed-Thomas and Jonathan Leake report**

**A**s food-safety officials from around Europe filed into the glass-and-concrete Albert Borschette conference block in Brussels last Tuesday, a sense of *déjà vu* pervaded. Once again an international food alert had begun in Britain. And once again the British regulatory authorities were trying to explain why it was

parts with a comprehensive list of the blighted food lines. In Britain, he explained, the list was still growing daily and foods had still to be pulled off the shelves.

The Food Safety Authority of Ireland (FSAI), went to work immediately to inform supermarkets, convenience stores and corner shops of the scare after it was alerted by its

Sudan 1 had been in the British food chain for at least 18 months but had not properly tracked down and destroyed the 5-ton consignment of contaminated chilli powder at its source.

"I am concerned that old stocks of chilli from before June 2003 appear still to be used by food processors," he said.

it assured us. But the alert has raised questions about the role of the FSA and what

**Sunday Times 27/02/05**

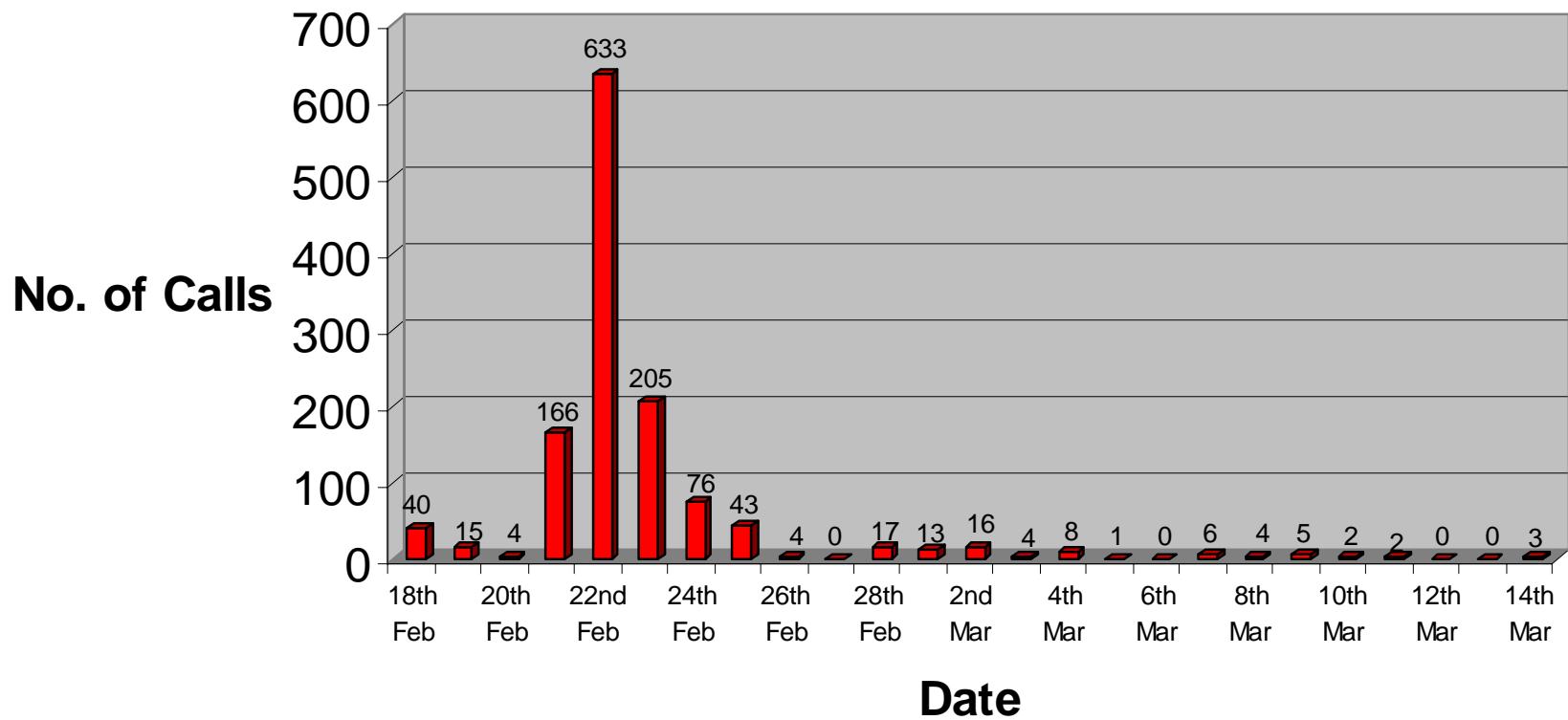
# Traceability of Sudan Red 1



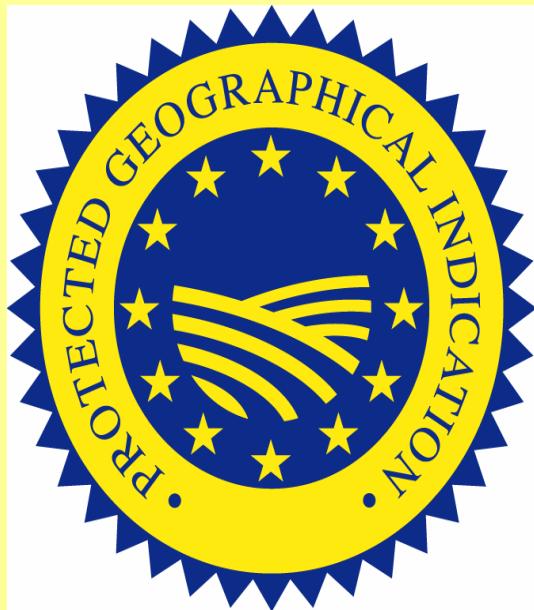
# Queries to FSAI Advice Line: Total 1,267



**Sudan Red 1 - questions to Advice Line**  
**18th Feb - 14th Mar 2005**



# EU System for Protection of food Names



# Organic



# Mission Statement:

“To protect **consumers' health** and **consumers' interests** by ensuring that food consumed, distributed, marketed or produced in the State meets the highest standards of food safety and hygiene”



# Traditional Inspections

- Notebook
- Pen
- Flashlight
- Thermometer
- Observation



# Are We Trained to Do It?



50% Yes

50% No



## Illegal use of nonfood ingredients in food several consequences

- The need for **scientific risk assessment** to determine the likely impact on human health and the appropriate risk management strategy.
- EFSA has a major role to play in providing these assessments.
- The need for improved or different analytical tests
- Increased vigilance on the part of the food industry and the official control systems



# Some conclusions

- Food Control agencies have to protect both consumers' health and consumer's interests
- Industry still has primary responsibility to ensure the authenticity of ingredients and products. It should have robust traceability systems in place
- Food inspectors have to use different techniques to combat food fraud; their role is more than the tradition hygiene and safety, but this is changing
- Experience has demonstrated that co-operation required amongst lots of agencies across different countries is essential if investigations are to succeed.
- Laboratories have to develop more sophisticated techniques (how to test is a food is organic for instance, or to prove its origin)



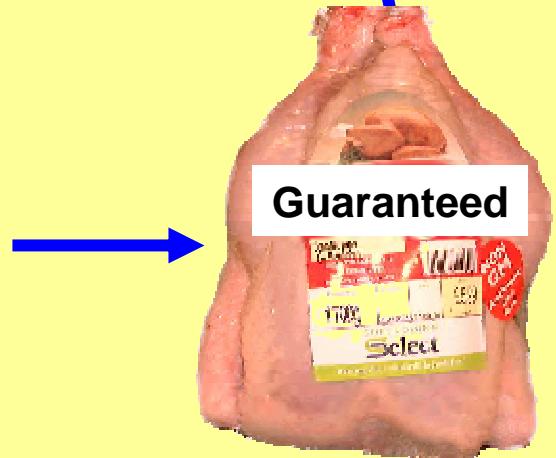
# Could it Happen?

From This



To This

Highest Quality  
Chicken



To This



It could for Profit...



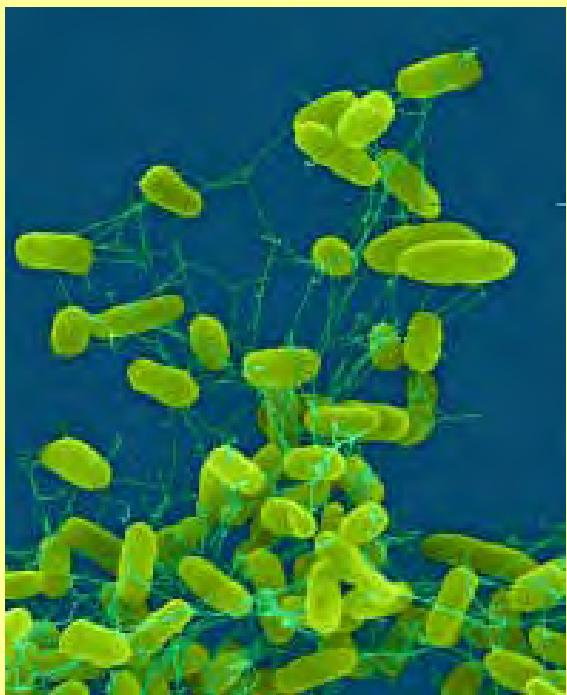
# Food Fraudsters...

- Cheat Consumers
- Cheat High Quality Food Producers by Stealing their Brands
- Cheat Taxation System
- Cheat Employees



# Dangers to the Food Chain...

## Salmonella



Through a \$1m. Microscope

## Other Bugs



Are Slightly Larger...

