

Part of the  
TEXAS PRODUCE CONVENTION 2011



*Texas*  
**FOOD SAFETY**  
**Traceability & Recall**  
*Pre-Convention Workshop*



AUGUST 17, 2011, 1:30 - 4:30 PM  
ISLA GRAND BEACH HOTEL & RESORT  
SOUTH PADRE ISLAND, TX



# Traceability

Can Make

Or

Break

A Company in this Era!

# Traceability

Important in Protecting  
Public Health  
And  
Company Health



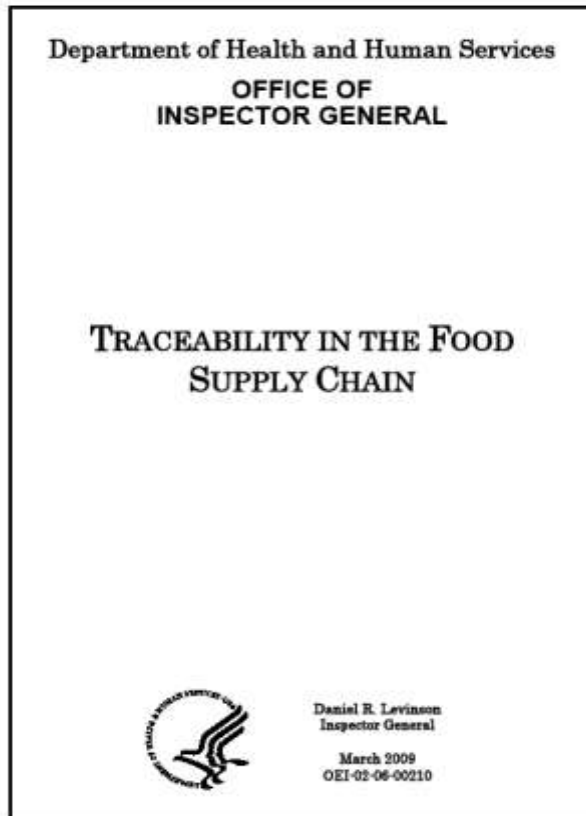
# Traceability

- **Public health impact**
  - Immediate: Trace food forward to prevent sale and consumption of contaminated product
  - Preventive: Trace food and food ingredient back to determine source of contaminate and prevent it from reoccurrence
- **Economic Impact**
  - Cost to industry
  - Cost to society

# What is Product Traceability?

- The ability to follow the movement of a food or food ingredient through specific stages(s) of production, processing and distribution.
- Currently 2007 Bioterrorism Act requires
  - One step forward
  - One step back

# Traceability Report



- Were able to trace 5 of 40 items
- Lack of lot code info
- Lack of records
- 25 % of facilities not aware of record keeping requirements

# Food Distribution

- Complex
- Becoming more complex
- As food distribution becomes more complex traceability becomes more important.

# Global Supply Chain Complexity



bleached wheat flour  
malted barley flour  
thiamine  
riboflavin  
Niacin  
folic acid  
reduced iron  
Water  
corn syrup  
sesame seeds  
soybean oil  
Yeast  
Salt  
calcium sulfate  
calcium carbonate  
calcium silicate

soy flour  
baking soda  
wheat gluten  
calcium propionate  
enzyme  
mono- and diglycerides  
diacetyl  
tartaric acid esters  
ethanol  
sorbitol  
polysorbate 20  
potassium propionate  
sodium stearoyl lactylate  
corn starch  
ammonium chloride  
ammonium sulfate  
calcium peroxide  
ascorbic acid  
azodicarbonamide

Milk  
milkfat  
Water  
cream  
sodium citrate  
salt  
sodium phosphate  
sorbic acid  
artificial color



cheese culture  
acetic acid  
soy lecithin  
Enzymes  
starch



Cucumbers  
water  
Vinegar  
Salt  
calcium chloride  
Alum  
natural flavorings  
polysorbate 80  
turmeric



USDA inspected beef

Soybean oil  
pickles  
distilled vinegar  
water  
egg yolks  
HF corn syrup  
sugar

onion powder  
corn syrup  
spice  
spice extractives  
salt  
xanthan gum

mustard flour  
prop. glycol alginate  
sodium benzoate  
potassium sorbate

mustard bran  
garlic powder  
hydrolyzed proteins  
caramel color  
paprika

Turmeric  
calcium disodium EDTA



lettuce



dehydrated onions

Grill Seasoning  
Salt  
Pepper

cottonseed oil  
soybean oil



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# Globalizing the Cheeseburger



## Vinegar

Argentina  
Australia  
Austria  
Belgium  
Brazil  
Canada  
China  
Chile  
Colombia  
Denmark  
Dom. Rep.  
France  
Germany  
Greece  
Hong Kong  
Israel  
Italy

Japan  
S. Korea  
Lebanon  
Peru  
Poland  
Portugal  
Serbia  
Philippines  
Russia  
S. Africa  
Singapore  
Spain  
Sweden  
Turkey  
Taiwan  
U.K.

## Garlic Powder

Brazil  
Canada  
China  
Germany  
India  
Israel  
Japan  
S. Korea  
Mexico



## Tomatoes

Belgium  
Canada  
Colombia  
Costa Rica  
Dom. Rep.  
Guatemala  
Israel  
Morocco  
Mexico  
Netherlands  
New Zealand  
Poland  
Spain

## Beef

Australia  
Canada  
Chile  
Costa Rica  
Honduras  
Japan  
Mexico  
Nicaragua  
New Zealand  
Uruguay



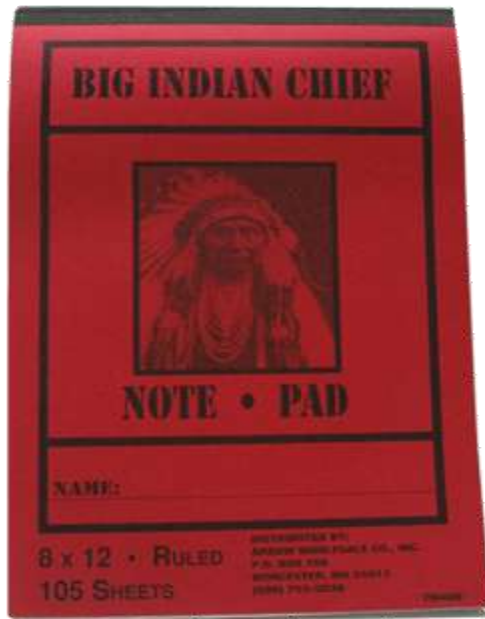
## Wheat Gluten

Australia  
Belgium  
Canada  
China  
Czech Rep.  
France  
Germany  
Kazakhstan  
Lithuania  
Netherlands  
Poland  
Russia  
Switzerland  
Thailand  
U.K.

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# Generating Records



Hand written records of Lot Codes

# Current Problems

- Paper work challenge
- Manpower extensive and does not provide a rapid response to a trace back
- Currently a universal systems does not exist to provide transfer of lot code information to achieve efficient and rapid transfer that would aid in epidemiology investigation



# Traceability or Product Trace

- 2009 Institute of Food Technologists Task Order on Traceability for feed and food.
- FDA contract on status of traceability and technology availability
- Report available at: *IFT.ORG*

# Institute of Food Technologists

## Study on Product Trace

COMPREHENSIVE  
REVIEWS  
IN FOOD SCIENCE AND FOOD SAFETY

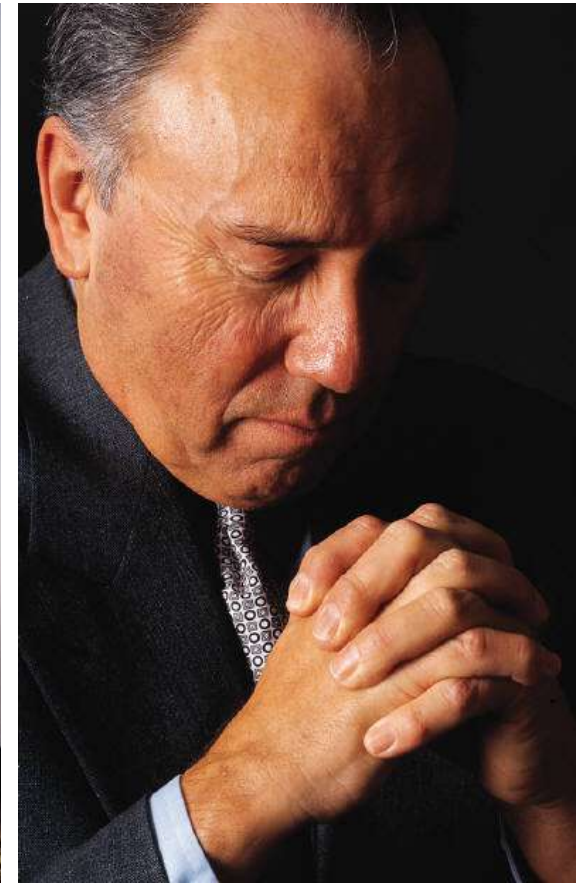
**Traceability (Product Tracing) in Food Systems: An IFT Report Submitted to the FDA, Volume 1: Technical Aspects and Recommendations**

Available from [www.IFT.org](http://www.IFT.org)

# Institute of Food Technologists

- Engaged more than 200 Stakeholders
  - 55 + food companies
    - Animal feed
    - Produce
    - Ingredients and processed foods
    - Distributors
    - Retail and Foodservice Operators
  - Trade associations
  - Consumer groups
  - Technology providers

# Methods of Traceability?



# Traceability Program

Unique to each Company



—Your Food Safety Coach—

# Traceability

- Company Policy Statement Content
  - Will have a traceability program
  - It will cover all products
  - A common system used to define lot
  - Our lot coding system will allow for prompt and accurate traceability
  - The system will be routinely verified

# Traceability

- Definition of a “Production Lot”
  - Amount of like product produced during a period of time indicated by a specific code
  - Provides a measurable boundary of product that is distinct

# Lot Code Issues

- Cross contamination
- Commingling
- Multiple ingredients
- Carryover
- Rework
- Hard break
  - Complete clean up and sanitizing process
- Readability

# Traceability of Field Pack

- Factors to Lot
  - Field
    - Do you use GPS coordinates to ID field positions?
  - Product
  - Day of harvest
  - Clean up to clean up of harvest equipment
    - Documented
    - Verified
  - Lot code on shipping case

# Traceability of Field Pack

- Other Considerations establishing the “lot”
  - Planting schedule
  - Fertilizers
    - Soil amendments
    - Top Dress
  - Irrigation schedules
  - Source water
  - Harvesting schedules
  - Harvesting equipment
  - Harvesting crews
  - Hydro cooling
  - Micro testing

# Traceability of Shed Pack Single Ingredient

- Field Pack Plus...
  - Product
  - Bulk bins
  - Day of harvest
  - Day of production
  - Carryover product from one day to next
  - Clean up to clean up of process equipment

# Traceability of Processed Product Factors

- Field Information
- Raw Materials
  - Single Ingredient
  - Multiple Ingredients
- Finished Product
- Equipment

# Traceability of Processed Products

- Raw Materials
  - Supplier of incoming ingredients
    - Supplier Lot Codes or...
    - Do you assign a new lot code?
    - How do you track lot codes through the process?
  - Carry over from one day to another
  - Blending of Multiple Products

# Traceability of Processed Products

- Finished Product
  - Multiple ingredients
  - Carry over ingredients
  - Rework – like into like, same day
  - Quantity produced
    - Multiple products or multiple codes
  - Clean up to Clean up with sanitizing
  - Process water
  - Verification of sanitizer concentration

# What should be in a Product Lot Code?

- Identification of product
- Identification of facility
- Production line
- Production date or date code (Sell By or Best if Used By)
  - Recommend
    - Hour and minute of production
- Readability
- Match retail package with shipping case

# Product Lot Code?

- Do you use a uniform coding system on all processing lines and plants?
- Do the lot codes appear on the shipping documents?
- Can your shipping or billing systems trace lot numbers to customers?
  - How quick?

# Benefits of Traceability

- Accuracy
- Management tool
  - Efficiency
  - Supplier Management
  - Productivity
  - Control Waste
  - Etc.
- Labor savings
- Speed of analysis
- Economics



# Your Traceability Program

- Think HACCP
  - Know your operation hazards
  - Look at the critical control points
  - Prevention!!!
- Determine how you gets arms around each segment

# Your Traceability Program

- Defending your product
- Documentation
  - Written program
    - Procedures
  - Training
  - Knowledge
  - Quality Control
  - Testing
  - Verification
    - Audit that program to verify it works

# Good Luck

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—Your Food Safety Coach—