Traceability on a Global Scale to Ensure Food Safety

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Agenda

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  - GFTC
- Traceability
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- Challenges
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Who We Are

- For more than 75 years, IFT has unlocked the potential of the food science community by creating a dynamic global form where members from more than 100 countries can share, learn and grow.
IFT Membership

More than 18,000 members worldwide

Members come from industry (81%), academia (15%), and government (4%)

18% of IFT members are international in more than 100 countries
IFT Global Membership

- Japan: 19%
- Korea, Republic Of: 16%
- Australia: 11%
- Taiwan: 10%
- United Kingdom: 9%
- Spain: 7%
- Brazil: 6%
- Thailand: 6%
- Argentina: 6%
- Germany: 5%
- India: 5%
IFT Members Come from Many Roles

- Industry Research
- Academic Research
- Product Development
- Product Management
- Packaging Development
- Purchasing
- Lab Management
- Executive Management
- Sales and Marketing
- Food Engineering
- Regulatory
- QA/QC
- Food Safety
- Consumer Insights/Sensory Evaluation
- Public Relations
What We Do

- IFT Annual Meeting & Food Expo
- Publications
  - Journal of Food Science
  - Journal of Food Science Education
  - Comprehensive Review in Food Science and Food Safety
  - Food Technology
  - IFT Press Books
  - Newsletters
- Continuing Education and Professional Development
  - Webinars
  - Short courses
Global Food Traceability Center - GFTC
Vision

To become the global resource and authoritative voice on food traceability.

Mission

A program to serve the agriculture and food sectors, by providing applied research, objective advice, and practical expertise about data collaboration and food product traceability for business benefit and public good.
Defining Food Traceability
Food Traceability in Context

- Food Protection: Holistic approach
- Food Defense: Intentional contamination
- Food Safety: Unintentional contamination
- Food Security: Accessibility and availability

Food Traceability

GFTC

GLOBAL FOOD TRACEABILITY CENTER
What is Traceability?

- Traceability *is not just* about data, identifiers, bar codes, RFID, tags, and any information that needs to be linked together to make traceability possible.

- Traceability *is* about systematic ability to access any or all information relating to a food under consideration, throughout its entire life cycle, by means of recorded identifications.
The Complexity of the Food System

Dig into this pizza and see why food traceability throughout the food system, from farm to fork, is critical to ensuring a safe and abundant food supply.

Tomatoes
While the U.S. produces the most tomatoes, Mexico accounts for 71% of tomato imports, and Canada accounts for 27%.

Cheese
14% of the raw buffalo milk used for mozzarella is made in Italy while 86% of buffalo milk is produced in Asia.

Mushrooms
China produces 47% of our mushrooms across the globe, followed by the U.S which produces only 11%.

Spices
11.5% of India’s spices are exported to United Arab Emirates, the U.S., the EU, and Malaysia.

Peppers
95% of unprocessed peppers are exported through India, China, and the U.S.

Anchovies
56% of our anchovies are produced in Peru, while pizza anchovies come from Argentina, Croatia, Spain, and Italy.

Beef
2.5 billion pounds of beef were exported this year to top markets like Canada, Japan, Mexico, South Korea, and Hong Kong.
Traceability: Relevance to Food Safety

- Causality
- Trust
- Visibility
- Agility

Prevention - Preparedness

Food Safety and Defense

Response - Recovery
Traceability Challenges
Traceability Challenges

- Consumers are more vocal
  - Demand for rapid access to reliable and relevant information whenever they need it
Consumers Value Trace Information

If you were given a choice between 2 products based on traceability information, which would you most often choose

- The somewhat more expensive item that had the traceability information: 59%
- The lower priced item that did not have the traceability information: 41%

Source: Deloitte 2011 Consumer Food and Products Insights Survey
Traceability Challenges

- Overlapping and conflicting demands from national regulators
Traceability Challenges

- Lack of unifying requirements
  - Changing regulatory demands around the world
- Multiple proprietary requirements
- Terminology
Traceability Challenges

- Lack of records
  - Data is simply not available, or is difficult to collect

- Is the data
  - Reliable?
  - Relevant?
  - Rapidly accessed?
Traceability Challenges

- Lack of technology
  - Technology is not the problem but it can be a solution
Traceability Opportunities
Traceability Opportunities: A Global Dialogue

What do we need to know?

What is the role of policymakers?

How do we verify it?

How do we talk about it?

Who gets access?
What we do NOT want to do…

Source: http://imgs.xkcd.com/comics/standards.png
Traceability Opportunities: A HACCP-like Approach

Global Registries
- Premises Registry
- Product Registry
- Participant Registry
- Movement Registry
- Terminology Registry
- Regulatory Registries

Governance Processes
- Govt access protocols and security
- Software meets global protocol and security requirements

Automated Query & Response Portal (Investigative and Commercial Usage)
- Certifiers’ access protocols and security
- Public access protocols and security

Solution providers
- Government
- Certifying NGOs
- Consumers
- Solution providers
- Software meets global protocol and security requirements

Virtual Lock Box
- Virtual Lock Box
- Virtual Lock Box
- Virtual Lock Box
- Virtual Lock Box

Data ownership retained by businesses

Transaction Data
- Suppliers
- Producers/Farmers
- Processors
- Distributors
- Retailers / FS
Traceability Opportunities: Impact

- Enhanced Traceability is a Win-Win-Win
  - Industry
    - Reduced costs
    - Increased profits
    - Viable industry
  - Regulators
    - More harmonized regulations
    - Reduced impact of outbreaks
  - Consumers
    - Better informed decision-making
    - Encourage safe food practices
Conclusion

- A list of clichés
  - The future is coming
  - Nothing is permanent but change
  - Surprise is inevitable, being unprepared is not

- Drivers of innovations
  - Regulatory roadmaps
  - Industry innovations
  - Technology transformations

- Future of Traceability
  - In a revolutionary phase
  - Much more than keeping track of foods
  - Collaborative and ubiquitous
www.globalfoodtraceability.org

Thank you.