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# Product Tracing in Food Systems

## An IFT report to the FDA

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# What is IFT?

- Institute of Food Technologists
- Scientific and professional society
  - Individuals in food science, food technology, and related professions; working in industry, academia, and government
  - Over 18,000 members
- Offices in Chicago, IL, and Washington, D.C.
- Contract work for FDA since 1999
  - October, 2008- Traceability (Product Tracing) in Food Systems

# Scope of Work

- Identify current and future product tracing systems (US and international; food and other industries)
- Review from harvest through processing and distribution to points of service
  - Focus on produce and FDA regulated food products
- Examine accessibility of information to public health regulatory officials
- Consider cost implications

# Task Approach: Collaborated with Core Expert Panel and Subpanels

- Stephen Arens, MBA; GS1 US, NJ
- Frank Busta, Ph.D.; National Center Food Protection & Defense, MN
- Martin Cole, Ph.D.; National Center Food Safety & Toxicology, IL
- Art Davis; The Sholl Group/Green Giant Fresh, MN
- Helen Jensen, Ph.D.; Department of Economics, Iowa State University, IA
- Brenda Lloyd; UFPC/YUM! Brands, KY
- Benjamin Miller, MPH; Department of Agriculture, MN
- Gale Prince; Your Food Safety Coach, OH

# Task Approach: Engaged More Than 200 Stakeholders

- 55+ food companies throughout the supply chain
  - Animal feed
  - Produce
  - Ingredients and processed foods
  - Distributors
  - Retail and foodservice
- Trade associations
- Consumer groups
- Technology providers



# Key Findings

- Food production and distribution are global and complex
- Technology to trace exists, and continues to evolve
- Most firms believe they are in compliance with “Bioterrorism Act” (maintaining 1-step up/back records)
- The lack of common data elements in the supply chain may not provide complete product tracing
  - A lot of information is recorded, but not linked
- Paper recordkeeping is prevalent, dominant

## Key Findings, *cont.*

- There are many industry initiatives, current and in development: The private sector is willing to improve.
  - Some wish to lead; not have a solution imposed upon them
  - Some want to wait see what happens; what is agreed upon
  - Many fear there won't be a “level playing field”
- Traceability costs vary and tend to be inaccurately estimated

# Overarching Issues

- Paperwork generally lacks complete information
  - No standards exist for capturing/expressing information
- Within a facility, internal systems often differ and are not electronically linked – not interoperable
- Companies receive different information from different suppliers, and have to provide different information to different customers
- “Lot” – meaning is confused and internal tracing is prevented

# IFT Guiding Criteria

- Simple
  - Reduce opportunity for error
- User friendly
- Leverages existing industry systems
  - Controls cost
  - Increases likelihood of adoption
- Globally accepted
  - Standardized ways to express key data elements
  - Suitable for global food supply (not US centric)



# For Effective Product Tracing:

- External and internal tracing must be maintained
- Key Data Elements must be captured, at the case level, for each lot of product at each point in the process where the product moves or is transformed
- The medium of information transfer and capture is not critical
- Key Data Elements must be electronic, processed either by the firm or through a third party
- Responsibility should begin with the first to close the product case, and continue through the last to open it

# IFT Core Recommendations

- Identify Critical Tracking Events (CTEs) when product is moved, transformed, etc.
  - Similar in concept to Hazard Analysis and Critical Control Points (HACCP) already widely used throughout food industry
- Maintain records for each CTE in *agreed upon, standardized formats* that *link incoming/outgoing product*
  - This ensures “internal tracing”
- Provide *key data elements*, in an *electronic* form, for all CTEs and each firm or entity, upon request by FDA and *within 24 hours*
- Training/education on CTEs and key data elements should be developed
- Product tracing should be required part of regulatory or third party audits

# Recommended Required Key Data Elements

- Physical location that last handled product
- Incoming lot # of products received
- Amount of product manufactured/shipped
- Physical location where product was shipped
- Date/time product was shipped and received
- Outgoing lot # of product shipped
- Date/time lot was harvested/manufactured
- Ingredients used in product

# Leveraging Existing Systems and Standards

- Many records are already kept
- Many internal and external systems have the capacity to capture additional information
  - Accounting, WMS, 3<sup>rd</sup> party trading services

# In Summary

- Product tracing protects public health
- Key Data Elements must be recorded at important points in the supply chain so that food products and their ingredients can be traced
- Key Data Elements should be specific at the lot level and should be printed on product cases, as well as accompanying paperwork
- Information should be provided, in electronic format, to a requesting regulatory authority, within 24 hours

# Thank You!

## Any Questions?

Contact Jennifer McEntire at IFT:

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IFT's full report **Product Tracing in Food Systems** is available at

[www.ift.org/traceability](http://www.ift.org/traceability)