Traceability is Free: Learning the Lessons of Others

NIAA Conference
April 10, 2018
Today’s Dialogue

- Perspective of traceability outside livestock . . . .

1. What’s been happening?
   - Myths & Facts of Traceability

2. Lessons Learned

3. What to do next?
Key Points

- Whole-chain traceability is a proven tool
  - Value proven by other industries and food sectors
  - Traceability provides public good and commercial benefits

- Collaboration on traceability improves business performance

- Traceability means a change of thinking, yet offers critical value → Consumer trust
Traceability has Evolved

- Consumers driving massive transition of food industry
  - “CEOs of the food system”

- Food traceability is now mainstream . . .

- More than recalls and animal health

- How can traceability help my business?
What do you mean, traceability is free?

More value than it costs to implement . . .

- Establishes discipline like other GMPs
- Reduces business risk, and recall/failure costs
- Reduces costs of poor quality
- Streamlines your supply chain with partners
- Strengthens brand equity and market access
What is Traceability?

- Traceability is *not* about tech, identifiers, bar codes, RFID, tags, and logs.
  - These are all important, but not sufficient

- Traceability *is* systematic ability to access any or all information relating to a food under consideration
  - Throughout entire life cycle
  - By means of recorded identifications

- For this to happen, a traceability system must keep track of when the units (and identifiers) are created, used, joined together, split up, and finally disposed/sold
Defining Traceability

- Categories of traceability
  - “Internal traceability”
    - Ability to follow the product WITHIN a business
  - “External traceability”
    - Ability to follow the product BETWEEN businesses
System Characteristics

- Provides access to all data about a food product . . . not just those verifiable by analysis

- Facilitates tracing food product backward (where it came from) and tracking forward (where it went)

- Provides access to properties of a food product or ingredient in all forms, in all links of the chain

- Based on systematic recording and exchange of these data

- Unit identification or numbering system is present and links to key properties of product
Issues we commonly hear . . .

- Cost of traceability
- Liability
- Data security
- Loss of efficiency
5 ‘False Facts’

❌ Traceability increases liability

❌ Traceability means lost privacy & confidentiality

❌ Traceability is a technology problem

❌ Traceability must be driven by regulators

❌ Cost of traceability is high

✅ Traceability reduces exposure to risk & liability

✅ Traceability increases transparency → Trust

✅ Traceability is a business opportunity → Revenue

✅ Business value will drive adoption

✅ Traceability is free – it reduces costs & raises margins

Others have demonstrated these . . .
Summary

- Traceability is a tool that
  - Reduces costs and risks
  - Increases value chain efficiencies
  - Strengthens brand equity & market access

- Traceability is free, but it is not a gift . . . it requires work

- Collaboration is key
  - More collaboration = Better performance
Produce Supply Chain

- Growers
- Packers
- Distributors

- Retailers
- Repackers
- Wholesalers
Produce Traceability Initiative (PTI)

- Vulnerable food sector
  - Short shelf life: Cold–warm temperature cycles
  - Broad and complex global trade system → 180,000 in USA
  - Low skill to high tech environments

- What are the key drivers of change?
  - Consumer–driven demands for safe, fresh produce
  - Growing concerns over foodborne illness outbreaks
  - Food fraud and mislabelling
  - Risk pressures → Increasing costs & liability
## Produce Traceability Initiative

<table>
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<tr>
<th><strong>Industry Leadership</strong></th>
<th><strong>PTI Established</strong></th>
<th><strong>Organization</strong></th>
<th><strong>Working Groups</strong></th>
<th><strong>Adoption</strong></th>
<th><strong>Adoption</strong></th>
<th><strong>Pilots</strong></th>
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<tr>
<td>Produce industry asks associations to develop whole-chain traceability</td>
<td>PMA, UFA, CPMA form PTI and launch Action Plan.</td>
<td>New governance structure approved by members of PTI</td>
<td>4 Working Groups kickoff in 2012; a 5th added in 2013</td>
<td>In 2012, Publix is first retailer to require PTI identifiers. WalMart follows in 2013</td>
<td>Major foodservice operators make GS1–128 case labeling mandatory for all product shipped</td>
<td>Walmart confirms PTI labelling will be basic requirement for Blockchain platform.</td>
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### Timeline

<table>
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<th>Year</th>
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<tr>
<td>2006</td>
<td>Spinach Crisis</td>
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<tr>
<td>2008</td>
<td>Tomato-Peppers Crisis</td>
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<td>2010</td>
<td>German Bean Sprouts</td>
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<td>2012</td>
<td>FSMA</td>
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<td>2014</td>
<td>Pilots</td>
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<td>2016</td>
<td>Enhancement</td>
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<td>2018</td>
<td>Pilots</td>
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### Outbreaks

- **Spinach Crisis**
  - Taco Bell in E.coli outbreak: 205 illnesses – 4 deaths

- **Tomato-Peppers Crisis**
  - 3 month Salmonella outbreak caused by raw jalapeno peppers: 1440 infected – 2 deaths

- **German Bean Sprouts**
  - E.Coli O104:H4 outbreak: 3,950 people were affected and 53 died

- **Cantaloupe**
  - Listeria outbreak in USA from Jensen Farms: 147 infected – 30 deaths

### Basic Data

- GTIN and Batch/Lot number are made basic requirements: GS1–128 barcode

### Adoption

In 2012, Publix is first retailer to require PTI identifiers. WalMart follows in 2013.

Major foodservice operators make GS1–128 case labeling mandatory for all product shipped.

Walmart confirms PTI labelling will be basic requirement for Blockchain platform.
Key Lessons

- Industry decision to act on a threat

- Industry steering team guided strategy & planning
  - Traceability to the ‘case level’
  - Agreed on using GS1 identification standards
  - Established aggressive timeline
  - Visible support & commitment by companies

- Program focused on traceability through the entire chain from grower to point of sale
Global Seafood Industry (FAO data)

- Wild caught has been at or close to its maximum: Global catch only up from 86 MT in 2000 to 93 MT in 2015
  - Proportion of wild fish stocks designated as fully exploited or overexploited has risen dramatically
  - 43% in 1989 . . . 57% in 2009 . . . 87% in 2015

- Aquaculture almost 50% of total production of seafood at just over 74 MT in 2015
  - Aquaculture growth was 2.6MT/yr in 2000–2001; 7.3MT/yr in 2011–2012
  - China produces 60% of aquaculture volume
  - Significant technological advances
Seafood Traceability

- Not a recent phenomenon – Start of century
  - Rising global trade
  - Food fraud and mislabelling
  - Incidence of foodborne illness
  - Fisheries management
  - Technology enhancements

- What are the key drivers of change?
  - Consumer-driven demands for transparency → Fraud
  - Government concerns over illegal, unreported fishing
  - Increasing operating costs & liability risk
Seafood Traceability Projects

- Global scope – 9 seafood value chains from catch to plate
  - 48 North American, European, Oceania, SE Asian companies
  - Fresh, frozen and tinned seafood: Salmon, Sardines, Shrimp, Tuna, Mahi-Mahi.

- Projects to focus on
  1) Impact of traceability
     - Business performance and industry vitality
     - Consumer perceptions & willingness to buy
     - Food waste
  2) Decision support tool – ‘ROI calculator’
     - Creates investment business case (net present value)
     - User friendly (smaller businesses), web-accessible: Quick and robust
     - Identifies the costs and benefits of traceability
Key Lessons (Seafood Firms)

1. View traceability from a strategic perspective
   ◦ Benefits are greater when businesses closely integrate traceability systems into their value chains and practices

2. Establish purpose/objectives before picking technology and supplier
   ◦ Let reasons for traceability and benefits sought guide selection of system

3. Approach traceability with big vision, small steps
   ◦ Not wise to try to accomplish everything at once
   ◦ Technology will not substitute for poor processes
Key Lessons (Government)

1. Enforce legislation and regulations that already exist
   ◦ Governments tend to develop new regulations to address an issue, often ahead of enforcing existing rules

2. Enforce legislation by means that produce intended outcomes
   ◦ Encourage businesses to use traceability

3. Pursue consistency and harmonization
   ◦ Lack of harmonization creates weakness and limitations that are hard for businesses to overcome
   ◦ Increases costs and opens gaps for exploitation
What Next?

Pattern to successful traceability programs . . .

- Get engaged . . . Decide to act!
  - Traceability has already proved it works
  - e.g. Automotive, Electronics, Pharmaceuticals, other foods, and in other countries

- Collaborate with partners for solutions
  - Engage non-profit, government, consumers
  - Focus on dialogue and *action* to move industry forward

- Change thinking! Traceability is an innovation tool
  - Leverage experience, project findings, and partnerships
Thank You

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