
Foodborne Illness: *Prevention and Response*

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Today's Agenda

- A quick glance at United Fresh Produce Association
- Produce safety today – prevention of illness; where do we stand?
- Outbreak investigations – what lessons must we learn to improve going forward?
- What can we expect in the future – from industry, regulators, legislators?

About United Fresh Produce

- Vertically integrated membership from total produce supply chain
 - Grower, packer, distributor, retail/restaurant
 - Over 100 commodity, regional associations
 - 40-member Board of Directors
- Core mission areas
 - Government advocacy in all issue areas
 - Food safety, quality assurance
 - Programs to grow produce consumption
 - Education and business tools to help members grow profitability



About United Fresh Produce

- Strong supporter of restaurant industry
 - Collaborative relationship with National Restaurant Association on a variety of issues, from immigration to food safety
- Strong leadership by restaurant industry
 - Retail-Foodservice Board focused on end-user needs and challenges in supply chain
 - McDonald's, Darden Restaurants, Independent Purchasing Cooperative, Taco Johns, Yum Brands, BYU Dining Services, International Corporate Chefs Association



Produce Safety Today

- Produce is an extraordinarily safe and healthy food
 - Every major worldwide public health authority (even FDA!) advises that the health risks of not eating produce far outweigh the risks of foodborne disease
 - CDC (*and Prevention*) is the lead federal agency promoting increased consumption of fresh produce for better health
 - Over 1 billion servings of produce are consumed daily in the U.S., without issue



Produce Safety Today

- But, produce is a natural product grown outside in nature
 - Often consumed without supply chain kill step, or cooking at point of consumption
 - Without cooking, 0.2% pathogen incidence is not acceptable for produce
- Focus must be to prevent contamination
 - First at field, but throughout the supply chain
 - Food prep is a “CCP” in serving consumers
 - Zero is our goal, but reality is daunting

Good Agricultural Practices



U.S. Food and Drug Administration

CENTER FOR FOOD SAFETY AND APPLIED NUTRITION



FDA Guidance:

- Guide To Minimize Microbial Food Safety Hazards For Fresh Fruits And Vegetables (October 1998)
 - Applicable to all producers of fruits and vegetables
 - Sets scientifically valid steps all producers should follow
 - Key risk factors are just as relevant today – water, wildlife, workers, soil amendments
 - GAPs are taught by USDA, academia, industry across all commodities, continents
 - Adoption, compliance remain critical



Produce Safety Today

- Commodity Specific GAPs
 - FDA brought focus to specific commodity challenges in 2002
 - 5 commodities responsible for 90% of outbreaks – herbs (basil/cilantro), green onions, leafy greens, cantaloupe, tomatoes
 - Production and handling practices vary, requiring different interventions
 - Resources must be focused on greatest risk

Produce Safety Today

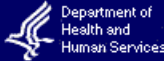
- Leafy greens
 - First commodity specific GAPs
 - Metrics added in CA Leafy Greens Marketing Agreement for compliance measurement
 - National agreement being reviewed by USDA
- Tomatoes
 - Recently published second edition of GAPs, handling standards
 - Implemented in FL through state law and regulation; support for federal standards
 - Metrics being developed for measurement

Standards and Practices in Fresh-Cut Processing



U.S. Food and Drug Administration

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FDA Fresh-Cut Guidance:

- Processors legally required to comply with GMPs
- Guide to Minimize Microbial Food Safety Hazards of Fresh-cut Fruits and Vegetables
 - Final document published March 12, 2007
 - Provides FDA's direction on how processors should comply with legal requirements of GMPs
 - Compliance measured through FDA inspections



Produce Safety Today

- Conclusion?
 - Produce has never been safer
 - Produce is becoming safer yet
 - Focus on commodity specific GAPs is making a huge difference – you won't find any commodity working harder on prevention than tomatoes and leafy greens
 - Fresh-cut produce processors are a strongly regulated part of food manufacturing, and essential partner to restaurants in safe food preparation

Outbreak Investigations

- The difference in fire prevention vs. putting out forest fires
 - In all our attention on prevention, we've overlooked this critical dimension of firefighting when needed
- Yet, firefighting/outbreak management is the key factor that can --
 - Destroy consumer confidence
 - Destroy companies regardless of your own food safety practices and investments

Outbreak Lessons Learned

- Views gathered from 2006 E coli outbreak linked to spinach, 2008 Salmonella outbreak linked to jalapeno peppers, recent investigation of E coli illness in Michigan
- Purpose not to attack individuals or best motives of hard working people
 - But, systemic flaws are apparent
 - If we don't learn lessons of the past we're doomed to repeat them

Outbreak Lessons Learned

- Crisis preparation is inadequate
 - No clear framework for roles and responsibilities for all players
 - When do locals, states, feds act?
 - What information is public, private?
 - Re-inventing of processes in each case
 - Variability in case control studies
 - Process used to clear product of concern
 - No “dress rehearsals” or “mock scenarios”
 - CIFOR recognizes the problem, but has not yet been able to solve it

Outbreak Lessons Learned

- There's no one in charge
 - Diffuse and conflicting roles of local, state and federal authorities
 - Locals ability to pre-empt feds
 - CDC/FDA odd relationship/rivalry
 - No chain of command for clear decision-making when authorities have different views
 - The “buck does not stop anywhere”
 - Look at National Transportation and Safety Board model

Outbreak Lessons Learned

- Epidemiology role needs better definition
 - Uneven level of expertise and resources
 - Bad epidemiology/product ID by underfunded states can set the course
 - Misidentification of source is dangerous, e.g. strawberries, tomato cases
 - Even good epidemiology can create false sense of certainty
 - Tracebacks, product testing required to confirm hypothesis
 - Hypothesis testing could be enhanced much earlier in process

Outbreak Lessons Learned

- Current system does not use expertise available
 - Industry has tremendous expertise in food production, distribution patterns
 - Business knowledge could inform investigations with sense of reality
 - Examples of tomatoes, peppers
 - Product testing could also be valuable
 - USDA, academia also largely ignored
 - System need to “pre-clear” experts for use in outbreak events

Outbreak Lessons Learned

- FDA traceback approach not designed to quickly narrow and focus on source
 - Highly legalistic approach to “build a case”
 - Records demands often miss the mark
 - Linear sequencing tied to paper records
 - Even companies’ electronic records must be printed out for FDA to fax to HQ
 - Pace and expertise dependent (again) on state cooperation
 - “Inconclusive” results can mean more than you think!

Outbreak Lessons Learned

- Risk management and risk communication wholly inadequate
 - How does government weigh risks and benefits to consumers in issuing warnings?
 - Unintended health consequences
 - Panicked consumers scared away from healthy products – spinach sales are still down two years later
 - Who remembers the extent of contaminated spinach in the food supply?
 - Unintended long-term business consequences
 - Who will invest in food safety?

What Can We Expect in Future

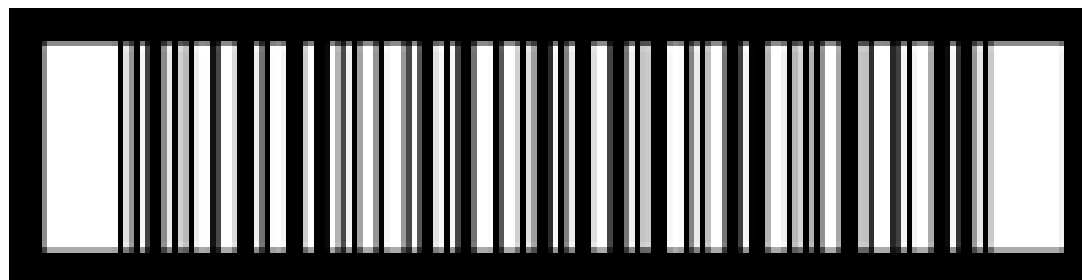
- From industry
 - Safer and safer produce through:
 - Better GAP compliance
 - Strong GMPs in fresh-cut processing
 - Enhanced use of food safety technology wherever applicable
 - A word about geography
 - It's not where a product is grown, but by whom and how that makes a difference
 - All imports are not dangerous; all locally grown is not safe
 - Produce Traceability Initiative



Basic Principles of Traceability

- Unique identification of products (cases) from the farm (first packer)
- If product is repacked, linkage of incoming case code to new outgoing code
- Capturing and storing of data by every receiver all along the supply chain
- Final tracking outbound from DC to retail store, restaurant

Example of Case Bar Coding



0 0 6 1 4 1 4 1 9 9 9 9 9 6

Company Prefix

Reference Number
(i.e. Case Number)

Check Digit

What Can We Expect in Future

- From FDA
 - Clear sense of stepped up efforts – a soon-to-be empowered regulatory agency
 - Some say the “handcuffs are coming off”
 - New analysis of 1998 GAPs document
 - Could lead to mandate based on common best practices across industry
 - Commodity-specific regulation likely
 - Strong hand in import safety
 - Collaboration with foreign governments
 - Mandates on importers

What Can We Expect in Future

- From Outbreak Investigators (I hope!)
 - Recognition that we have a major problem
 - Increased ability to detect illnesses will demand new paradigm in investigations
 - New collaboration among all stakeholders, including feds, states, locals, industry, consumer groups
 - Increased role by CIFOR, FDA Advisory Committees, FDLI, academia, think tanks
 - But, Congressional action may be required to drive systemic changes needed

What Can We Expect in Future

- From Congress
 - 2009 to be an “active” year in food safety
 - Both House and Senate leaders are ready with ideas, bills, and energy
 - Broad food safety legislation most likely
 - Concentration/delineation of authority
 - Emphasis on preventive controls
 - Import certification
 - Commodity specific GAPs
 - Traceability
 - User fees

What Can We Expect in Future

- From United Fresh Produce Association
 - Strong collaboration with National Restaurant Association in tackling our common issues
 - Strong support of our individual restaurant and foodservice members in tackling their specific food safety issues
 - Strong communication on the health and safety of fresh produce to answer consumers' questions and concerns with transparency, honesty and facts

Our Challenge Together

- Drive risk to an ever lower level
 - There is no such thing as zero risk
 - Food safety is a journey, not a destination
- Ensure public trust in a system of food protection that:
 - Maintains confidence in eating healthy fresh fruits and vegetables
 - Can deal with sporadic problems