



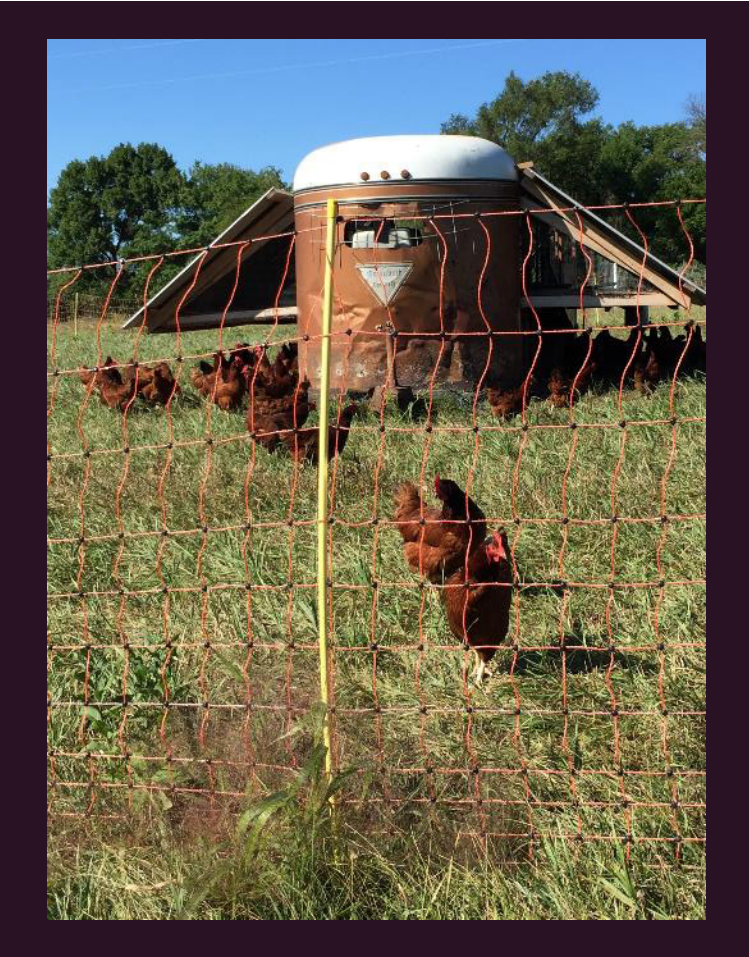
Animals, Water, Equipment, and Workers: Efforts to keep Washington State produce safe for consumers

Connie Fisk, *WSDA Produce Safety Program Manager*
WSEHA AEC – April 30, 2024

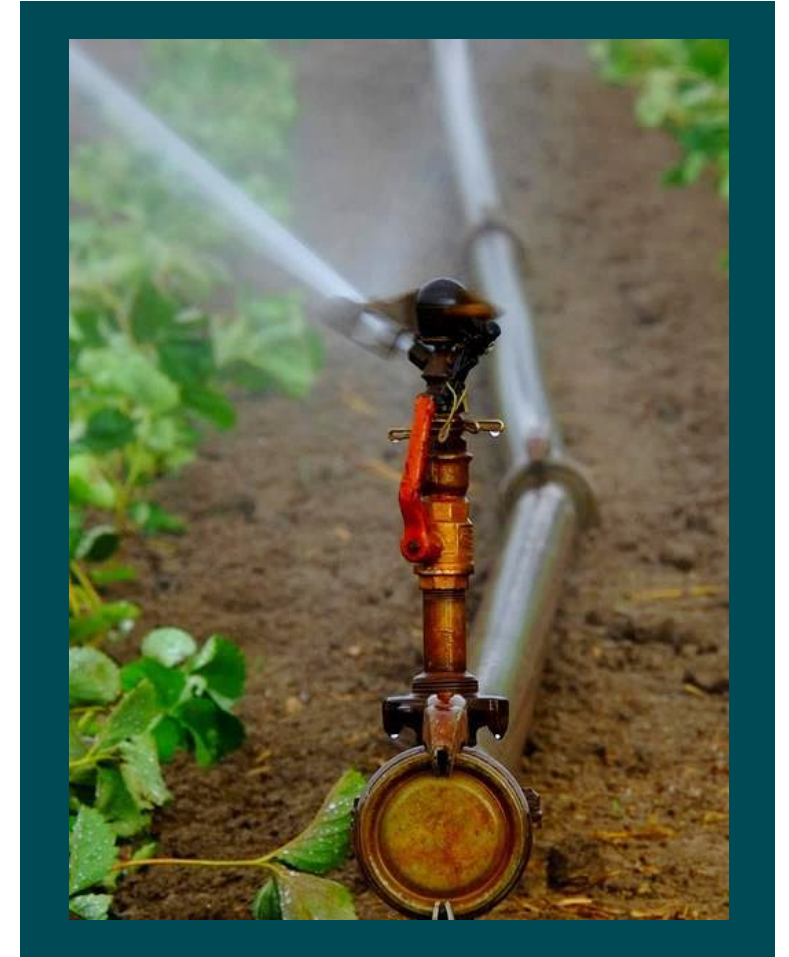


Washington
State Department of
Agriculture

Overview



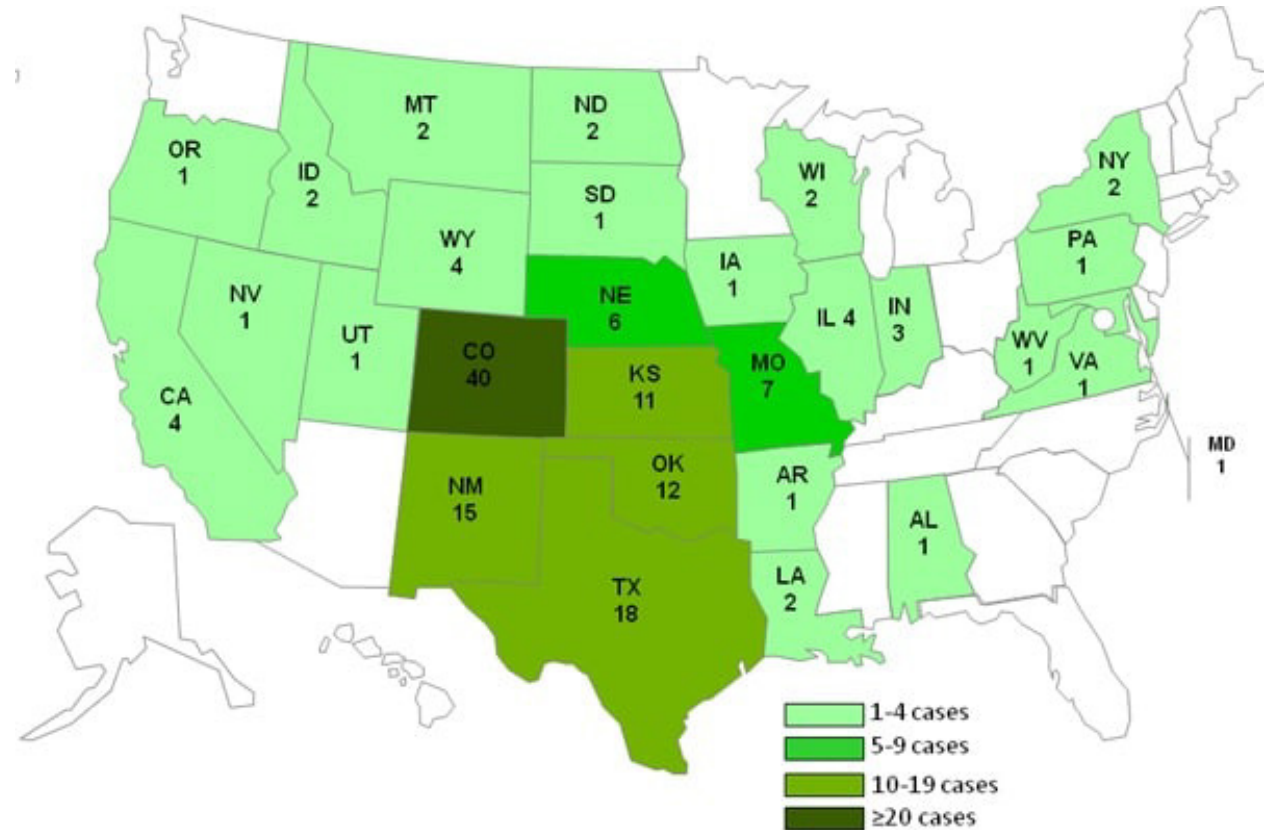
- Example Outbreaks
- Introduction to the FSMA Produce Safety Rule
- PSR Requirements:
 - Animals
 - Water
 - Equipment
 - Workers
- WSDA Produce Safety Program





2011 Multistate Outbreak of Listeriosis Linked to Whole Cantaloupes from Jensen Farms, Granada, Colorado

- Case Count: 147
- States: 28
- Deaths: 33
- Hospitalizations: 143
- Recall: Yes

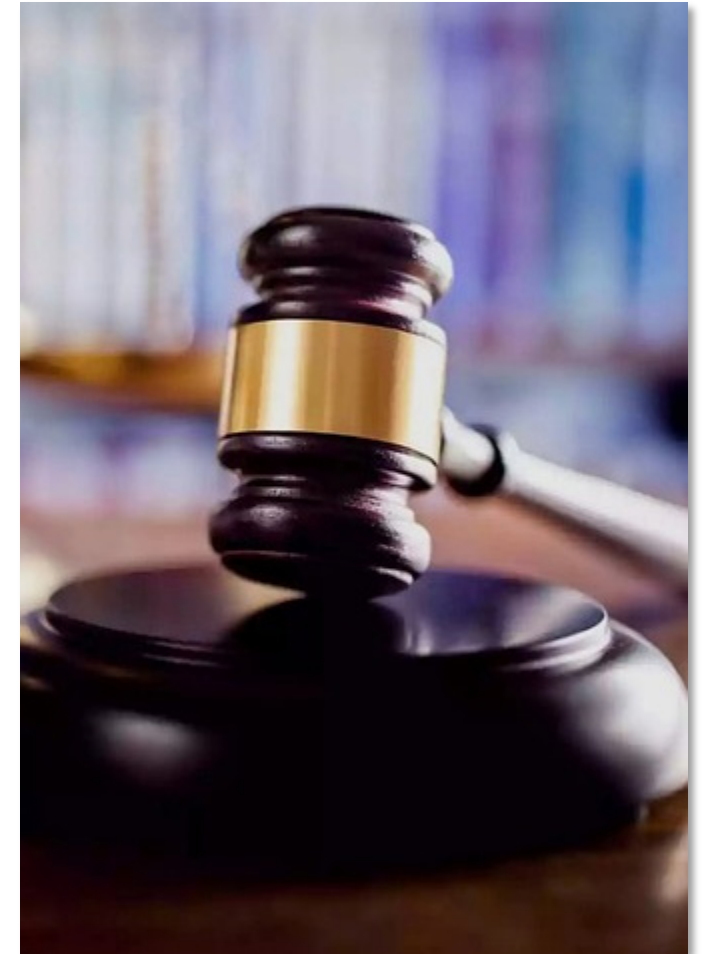


Inspection Findings

- Listeria is frequently found in soil or manure, but tests of the soil on the farm did not turn up the bacteria.
- Jensen Farms had recently acquired a set of used machinery that had been used to clean potatoes and was not intended for use with cantaloupes.
- The equipment was corroded in places and built in a way that made it difficult to clean and sanitize.
- “You’re rolling around cantaloupe on uncleanable equipment and you’re getting it wet and you’re not cooling it — it provides the perfect environment for listeria growth and spread,” said James Gorny, a senior food safety adviser at the Food and Drug Administration.

Penalties for Adulteration

- The Jensen brothers pleaded guilty to misdemeanor counts of introducing adulterated food into interstate commerce.
 - Each received five years of probation and six months of home detention.
 - Each also was ordered to pay \$150,000 in restitution and perform 100 hours of community service.
- Jensen Farms filed for bankruptcy in 2012.
- Jensen and their distributor, Frontera Produce, were the subject of numerous wrongful death lawsuits that were settled for unnamed amounts.



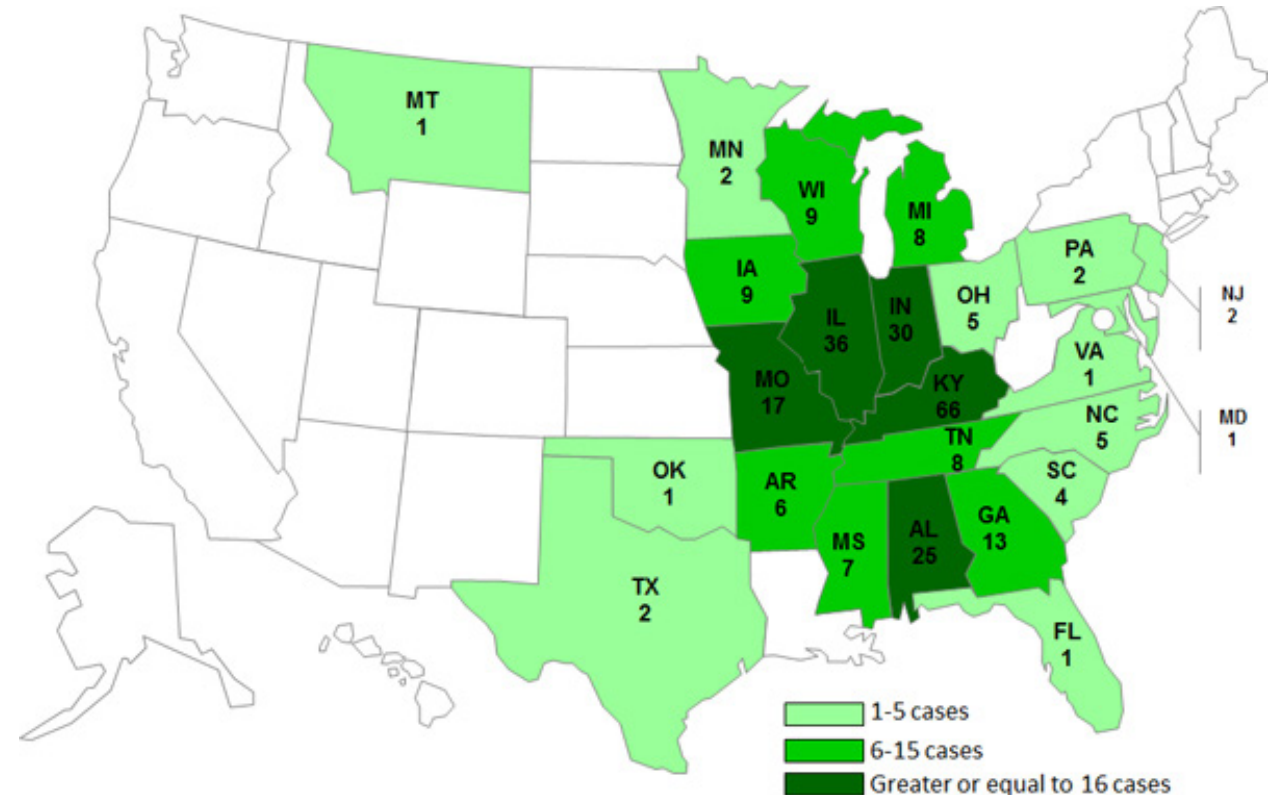
Impact on the Reputation of Rocky Ford, CO Growers



- Only one farm supplied the cantaloupes contaminated with *Listeria*, but that farm sold their fruit as *Rocky Ford Cantaloupes* (even though Jensen Farms is 90 miles away from Rocky Ford, CO).
- The longtime family farmers in Rocky Ford, and the whole town, took a huge hit.
- The area's farmers have now legally protected their name, and they've spent time and money to convince the public that the cantaloupe they've built a 100-year reputation on are safe.


2012 *Salmonella* Outbreak Linked to Cantaloupes from Chamberlain Farms Produce, Inc. of Owensville, Indiana

- Case Count: 261
- States: 24
- Deaths: 3
- Hospitalizations: 94
- Recall: Yes



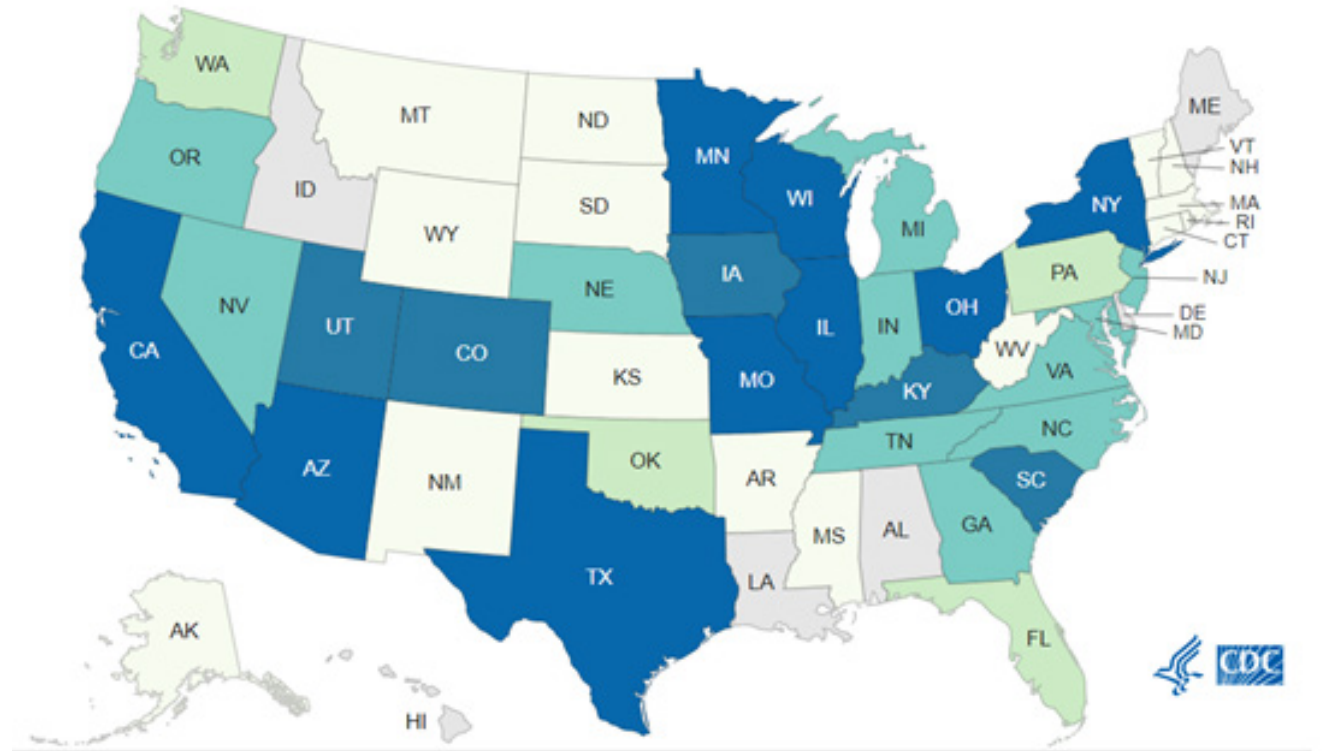
Inspection Findings

- *Salmonella*-positive samples: melons in field and cardboard bins, environmental swabs of packinghouse
- Food contact surfaces were not constructed/designed to allow for proper cleaning
- Rollers and belts of the conveyor had biofilm buildup, showing that they were not cleaned as frequently as necessary to prevent contamination
- Chlorine was added to wash water, but its concentration was not being monitored

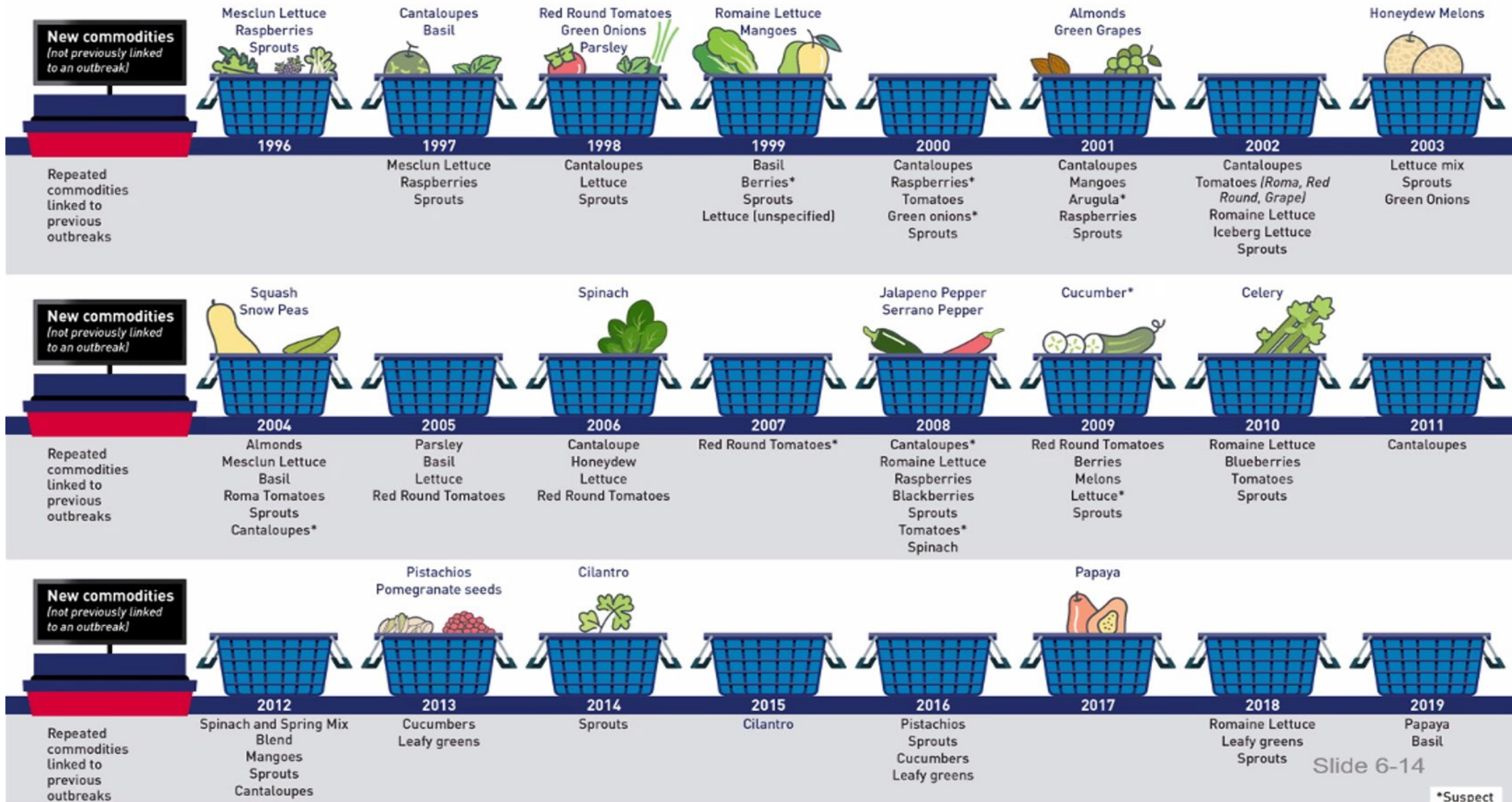
DEPARTMENT OF HEALTH AND HUMAN SERVICES FOOD AND DRUG ADMINISTRATION			
DISTRICT OFFICE ADDRESS AND PHONE NUMBER 300 River Place, Suite 5900 Detroit, MI 48207 (313)393-8100		DATE(S) OF INSPECTION 08/14/2012-08/31/2012	
Industry Information: www.fda.gov/oc/industry		FEI NUMBER 3009701075	
NAME AND TITLE OF INDIVIDUAL TO WHOM REPORT IS ISSUED TO: Tim D. Chamberlain, President			
FIRM NAME Chamberlain Farms Inc.	STREET ADDRESS 5884 W 250 South		
CITY, STATE AND ZIP CODE Owensville, IN 47665	TYPE OF ESTABLISHMENT INSPECTED Farm		
<p>THIS DOCUMENT LISTS OBSERVATIONS MADE BY THE FDA REPRESENTATIVE(S) DURING THE INSPECTION OF YOUR FACILITY. THEY ARE INSPECTIONAL OBSERVATIONS AND DO NOT REPRESENT A FINAL AGENCY DETERMINATION REGARDING YOUR COMPLIANCE. IF YOU HAVE AN OBJECTION REGARDING AN OBSERVATION, OR HAVE IMPLEMENTED, OR PLAN TO IMPLEMENT CORRECTIVE ACTION IN RESPONSE TO AN OBSERVATION, YOU MAY DISCUSS THE OBJECTION OR ACTION WITH THE FDA REPRESENTATIVE(S) DURING THE INSPECTION OR SUBMIT THIS INFORMATION TO FDA AT THE ADDRESS ABOVE. IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT FDA AT THE PHONE NUMBER AND ADDRESS ABOVE.</p> <p>DURING AN INSPECTION OF YOUR FIRM (S) (WE) OBSERVED:</p> <p>1. During the inspection I observed, indications of poor sanitary practices demonstrating contamination in the firm's cantaloupe packing shed through environmental swabs and product samples which tested positive for Salmonella as follows:</p> <ul style="list-style-type: none"> • During this inspection on 08/16/2012, cantaloupes were collected from the 21 acre field located at Old 65 and Co Rd 525 W and tested positive for Salmonella Newport and Salmonella Typhimurium. • During this inspection on 08/16/2012, cantaloupes were also collected from a cardboard bin after processing in the packing shed and tested positive for Salmonella Newport. • During the inspection 08/14/2012, environmental swabs were collected from various locations and surfaces throughout the packing shed. 7 of 50 environmental swabs tested positive for Salmonella Newport. 2 of 50 environmental swabs tested positive for Salmonella Anatum. <p>2. Food contact surfaces are not constructed/designed in a manner to allow for appropriate cleaning: On 08/14/2012, while cantaloupes were being processed, I observed, porous food contact surfaces including carpet and wood used throughout the cantaloupe processing line which does not allow for adequate cleaning. Apparent rust and corrosion on multiple pieces of equipment throughout the processing line was also observed.</p> <p>3. Failure to clean as frequently as necessary to protect against contamination of food: On 08/14/2012, while cantaloupes were being processed, I observed, multiple locations of the conveyor including rollers and belts, had an accumulation of black, green, and brown buildup. There was an accumulation of debris including trash, wood, food pieces, standing water, mud, dirt, and green buildup observed beneath the conveyor belt in the cantaloupe packing shed.</p> <p>4. On 08/14/2012, while cantaloupes were being processed, I observed, standing water in the packing shed on the</p>			
SEE REVERSE OF THIS PAGE	EMPLOYEE(S) SIGNATURE 	EMPLOYEE(S) NAME AND TITLE (Print or Type) Meisha R. Waters, Investigator	DATE ISSUED 08/31/2012
FORM FDA 483 (09/8) PREVIOUS EDITION OBSOLETE		INSPECTIONAL OBSERVATIONS Page 1 of 2	
FORM FDA 483 (09/8) PREVIOUS EDITION OBSOLETE		INSPECTIONAL OBSERVATIONS Page 2 of 2	

2023 *Salmonella* Sundsvall Outbreak Linked to Imported Cantaloupes, Whole and Pre-Cut

- Case Count: 407
- States: 44
- Deaths: 6
- Hospitalizations: 158
- Recall: Yes



COMMODITIES RELATED TO OUTBREAKS CHANGE FREQUENTLY

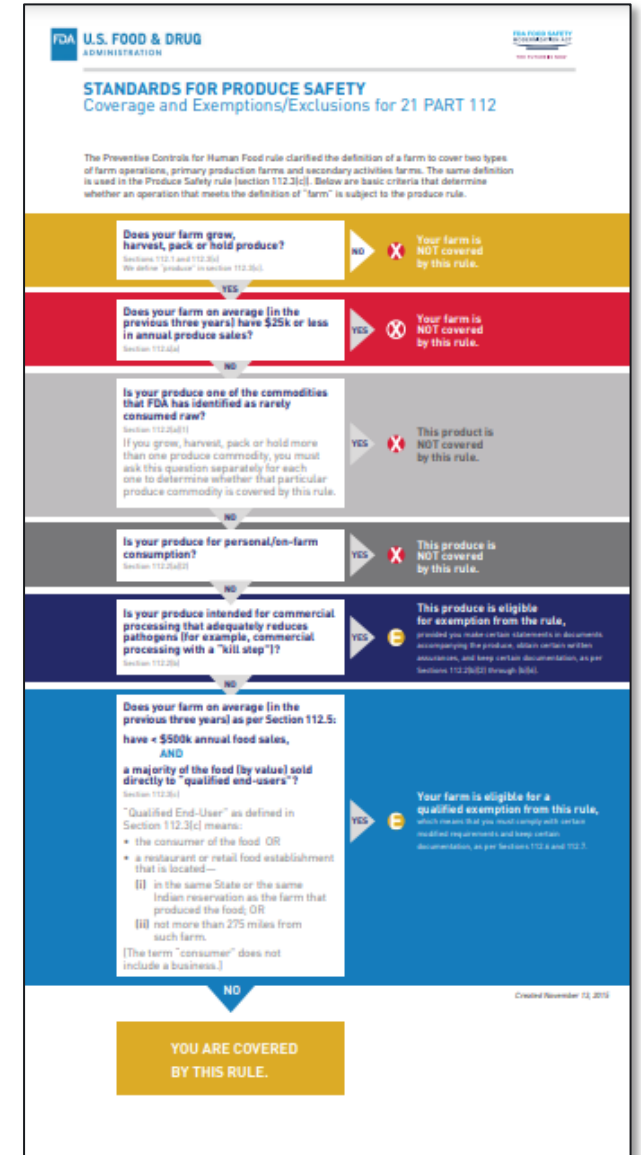


Slide 6-14

*Suspect

FSMA Produce Safety Rule

- First ever mandatory federal standard for growing, harvesting, packing, and holding of fresh produce
 - Different from the GAP audits required by some buyers
- Some farms/produce may be eligible for an exemption or exclusion:
 - Farms with annual produce sales \leq \$25K
 - Qualified Exempt (based on average annual *food* sales AND sales to ‘qualified end users’)
 - Processing that includes a ‘kill step’
 - Commodities grown (on the Rarely Consumed Raw list)
- Ultimately, all growers should understand and take action to reduce food safety risks on the farm



GAPs vs. Produce Safety Rule

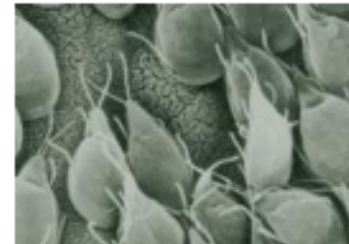
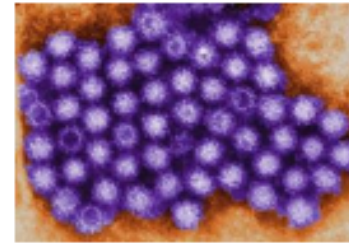
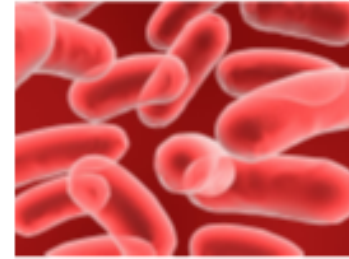
	Good Agricultural Practices	FSMA Produce Safety Rule
Administered by	United States Dept. of Agriculture (USDA) guidance document	Regulations issued by Food & Drug Administration (FDA)
Compliance	Voluntary participation	Mandatory regulations
Enforcement	Farm audits done by third part auditor, USDA-AMS, Primus Labs, etc.	State regulatory inspections
Cost	Annual audit expenses paid by farmer	No-cost inspections
Food safety plan	Required	Voluntary
Food recall & traceability plan	Required	Voluntary
Notes	Market driven by buyers. GAPs audits may open new markets. Training educational only; not recognized by FDA as a FSMA compliant food safety training course.	Covered farms must have at least 1 supervisor or designated food safety farm leader take an FDA approved FSMA compliant training course.

Table source: cropwatch.unl.edu/gaps



Microorganisms of Concern in Fresh Produce

- Bacteria
 - *Salmonella*, toxigenic *E. coli*, *Shigella*,
Listeria monocytogenes
- Viruses
 - Norovirus, Hepatitis A
- Parasites
 - *Giardia lamblia*, *Cryptosporidium*
parvum, *Cyclospora cayetanensis*,
Toxoplasma gondii



FSMA Produce Safety Rule Subparts



Subpart C – Personnel Qualifications and Training



Subpart D – Health and Hygiene



Subpart E – Agricultural Water



Subpart I – Domesticated and Wild Animals



Subpart K – Growing, Harvesting, Packing, and Holding Activities



Subpart L – Equipment, Tools, Buildings, and Sanitation

Subpart M – Sprouts

Animals



§112.83

Assess during growing season for potential contamination (e.g., animals, feces, crop damage).



Take measures to assist later during harvest.

Cannot harvest produce that is reasonably likely to be contaminated.

📷 Andrew MacLachlan
USFW



§112.112

Prior to and during harvest, identify produce reasonably likely to be contaminated.



Visually assess growing area and all covered produce before beginning harvest.

📷 Patrick Coin

Animals, continued

- Keep pets out of growing areas
- Farm policies should prohibit u-pick customers from bringing pets
- Consider risks associated with adjacent land uses (e.g., livestock production, manure/compost piles)
- Minimize hazards associated with rotational grazing and BSAAO applications (e.g., timing, treatment)
- Exclude animals from fully-enclosed buildings and prevent pests from becoming established in partially-enclosed buildings



Water

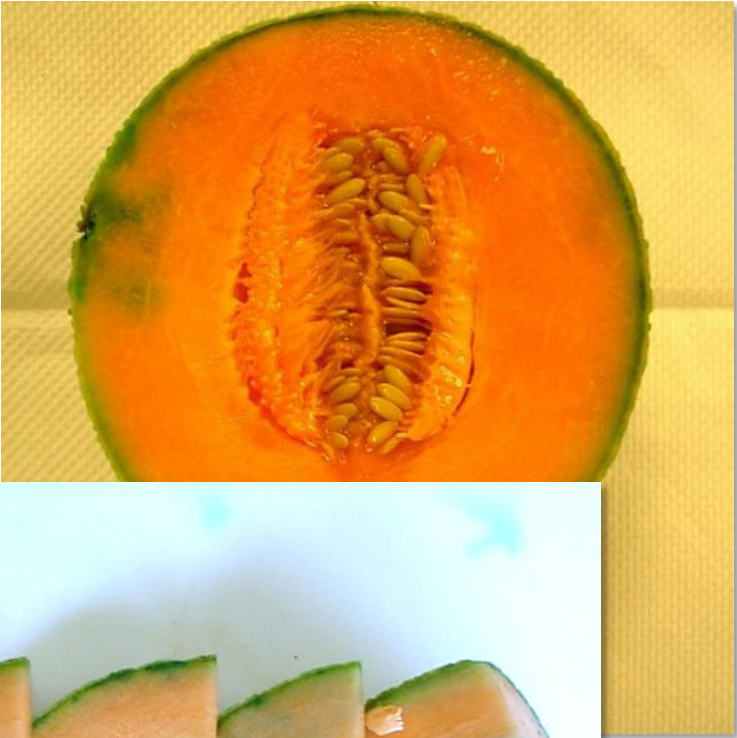
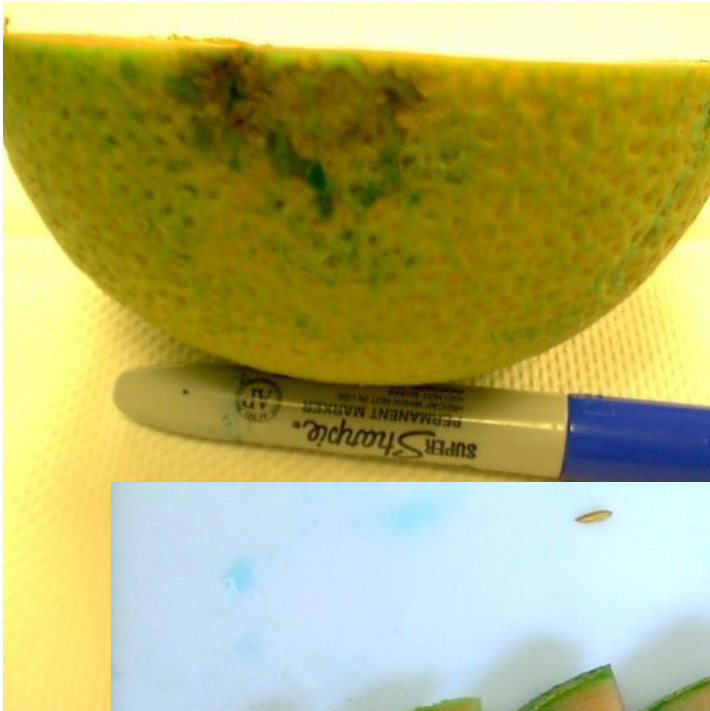
- Preharvest water requirements are currently on hold
- Proposed Ag Water Rule expected to be finalized this fall or next spring
 - Removes water testing requirement
 - Adds Ag Water Assessment requirement
 - Farms will have between 9 months and two years and 9 months to comply, depending on farm size
- Reduce risk through source, application method, and timing



Harvest & Postharvest Water Requirements

- Safe and of adequate sanitary quality for its intended use §112.41
- Inspect your ag water system at least once annually §112.42
- Perform ag water source inspections and maintenance as needed and at least once annually §112.44
- No detectable generic *E. coli*, no untreated surface water
 - Direct contact with produce or food contact surfaces (including water used for washing or cooling activities, handwashing, and making ice)
- Manage as necessary to maintain quality (monitor re-circulated water for buildup of soil and organic material; establish and follow a water-change schedule) §112.48
- Monitor temperature and adjust as needed to minimize infiltration

Infiltration



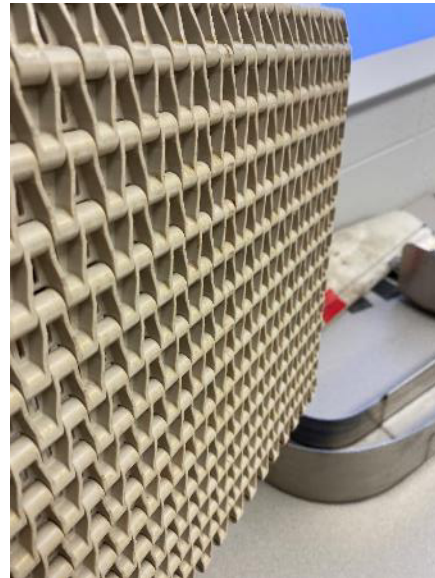
Single Pass vs. Batch Water

Sanitizer not required, but can help prevent cross-contamination



Equipment and Tools (§112.123)

- Adequate design, construction, and workmanship, installed and maintained to facilitate cleaning
- Inspect, maintain, clean, sanitize food contact surfaces; maintain and clean non-food-contact surfaces



Containers

- Harvest containers (§112.113)
 - Don't place harvested produce in dirty containers
- Packing materials (§112.116)
 - Cleanable or designed for single use, unlikely to support growth or transfer of bacteria

Farms Must...

Workers Must...



Train Workers

- Principles of food hygiene and food safety
- Importance of health and personal hygiene
- To recognize microbial risks
- Their job duties



- Maintain personal cleanliness
- Avoid contact with animals
- Maintain gloves, replace when necessary (if using)
- Remove or cover jewelry
- Not eat, chew gum, use tobacco in area used for covered activities



- Exclude ill workers from covered activities
- Provide toilet and handwashing facilities
- Control and dispose of sewage, trash
- Make visitors aware of policies and procedures



Wash hands:

- Before starting work
- Before putting on gloves
- After using the toilet
- After breaks
- After touching animals

Always Wash Before Cutting



Wash your hands and utensils (knives and cutting boards) before and after handling melons.

Wash the outside of the melon with a clean vegetable brush under cool running water (no soap).

Blot dry with clean paper towels.

The WSDA Produce Safety Team

Leah Grewal
Inspection
Admin Coordinator



Karen Ullman
Assistant Program
Manager



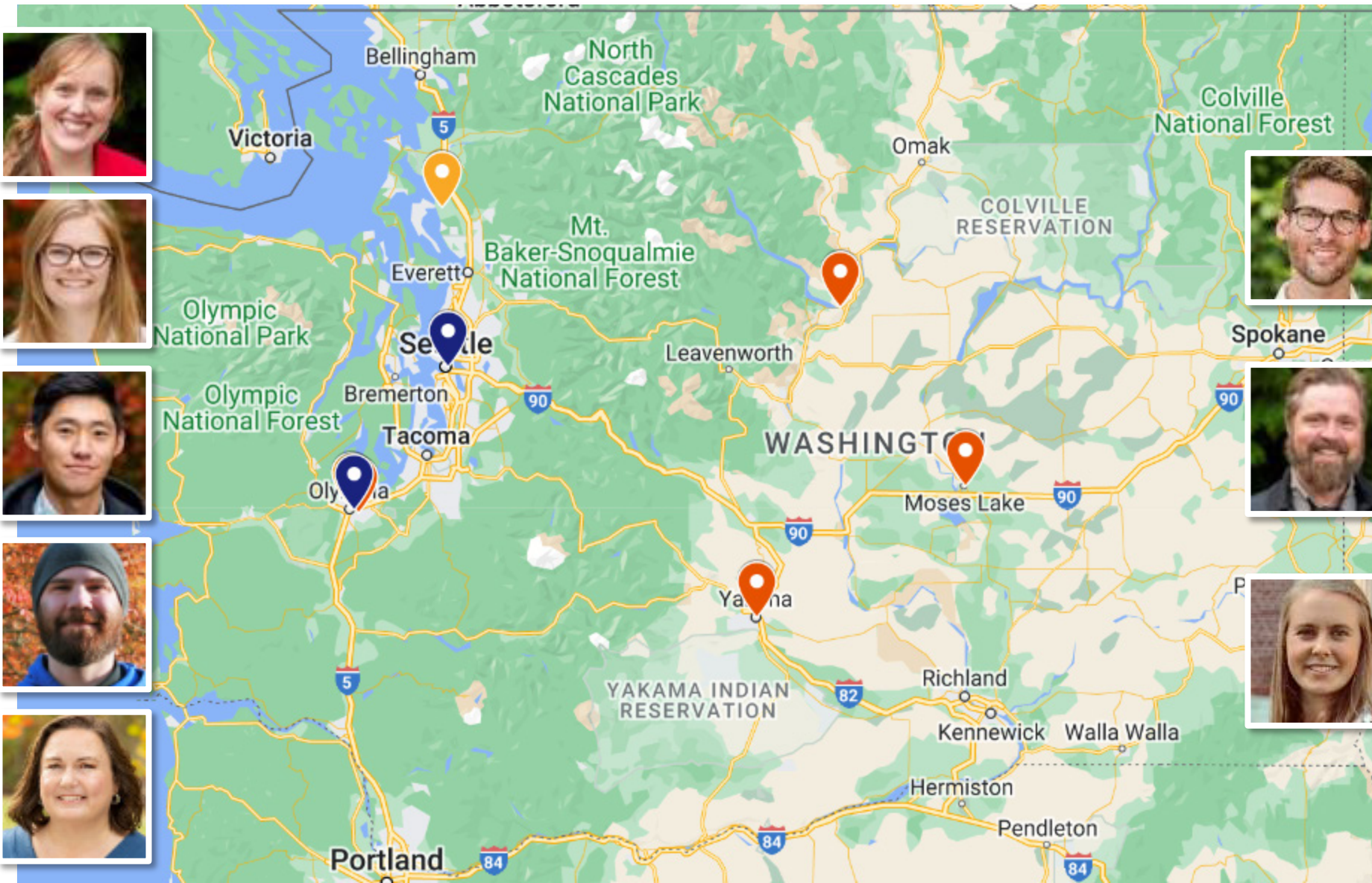
Evan Low
Inspector
Western WA



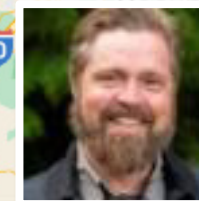
Bradley Guise
Administrative
Assistant



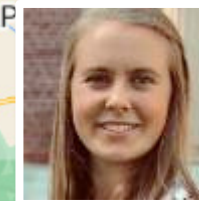
Connie Fisk
Program Manager



Jerrid Higgins
Inspection
Supervisor



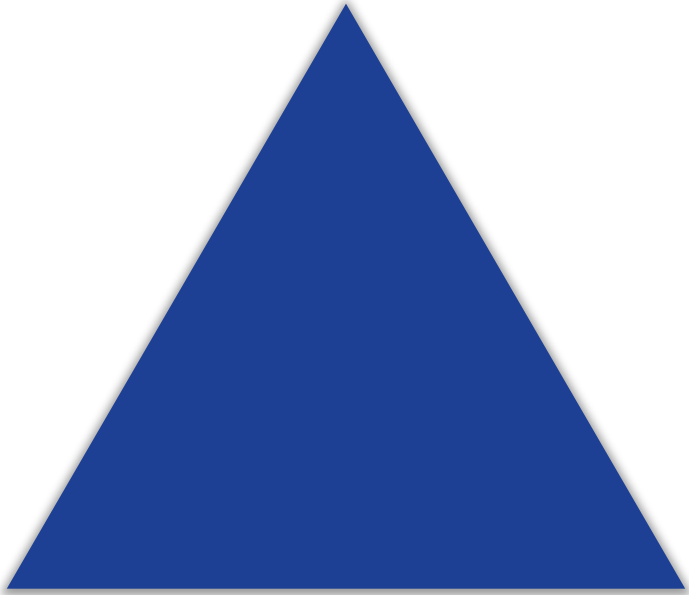
Thane Tupper
Inspector
Northeastern WA



Erika Hettick
Inspector
Southeastern WA

WSDA Produce Safety Program Objectives

Farm
Inventory



Education,
Outreach, &
Technical
Assistance

Farm
Inspections,
Compliance &
Enforcement

EDUCATION, OUTREACH, & TECHNICAL ASSISTANCE

- Produce Safety Program newsletter
- Produce Safety Alliance Grower Trainings
- Program booth at industry conferences
- Presentations at industry workshops
- On-Farm Readiness Reviews



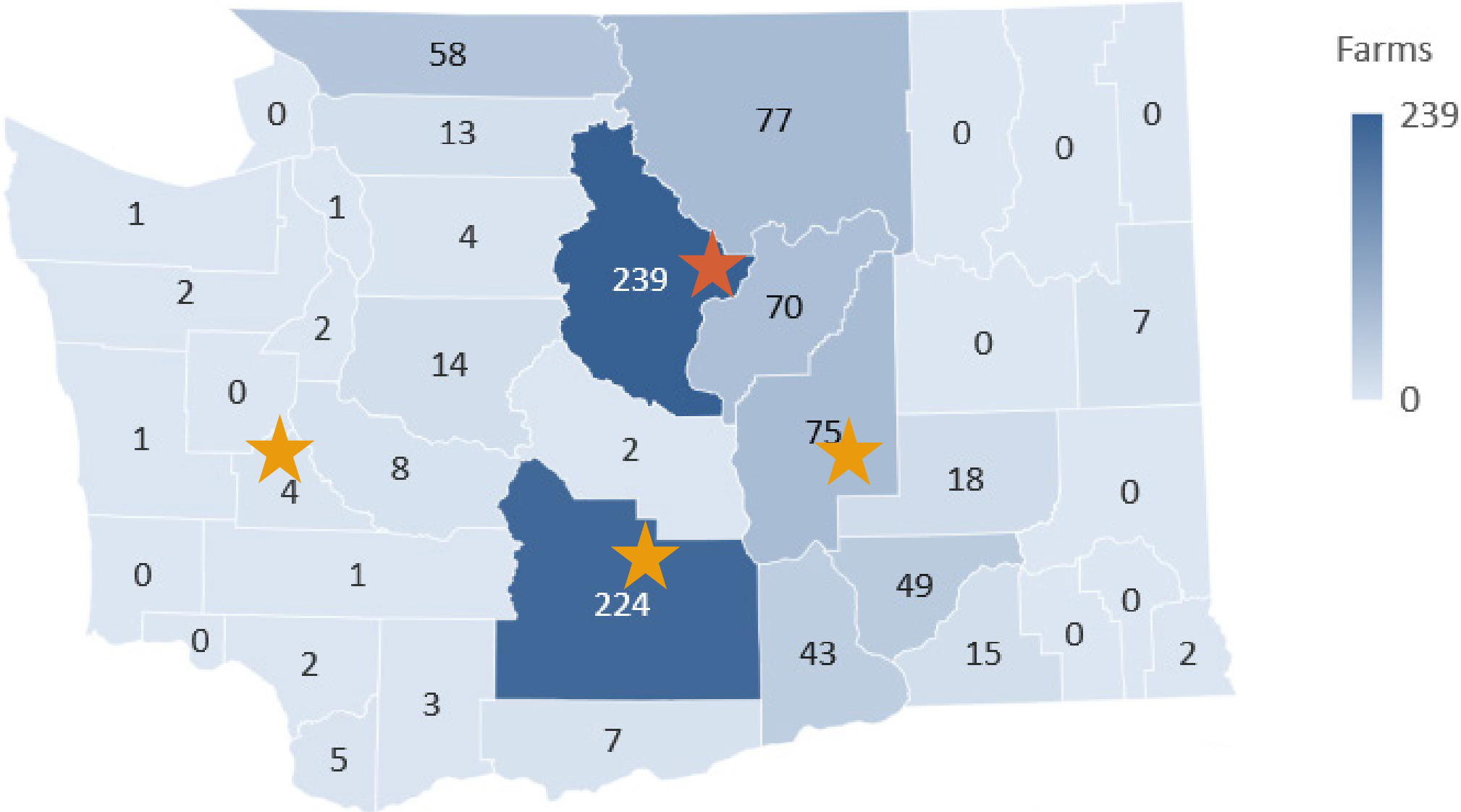
📷 Mikala Hughes, Sakuma Brothers

FARM INVENTORY

Large Covered Farms (>\$500K)	560
Small Covered Farms (>\$250K-500K)	181
Very Small Covered Farms (>\$25K-250K)	255
Current Total Verified Covered Farms	996

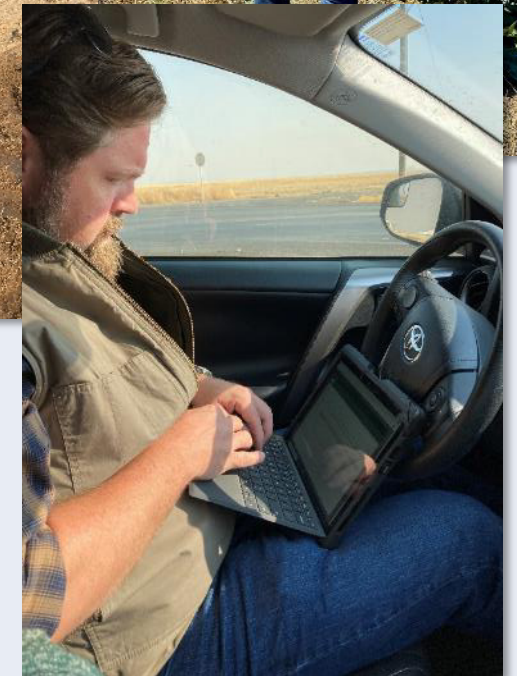
Farms w/ Produce Sales ≤\$25K	285
Qualified Exempt Farms	158
ONLY Commercial Processing Exempt	81
ONLY Rarely Consumed Raw	28

Covered Farms by County



INSPECTIONS

- On-farm **during harvest**
- Farm walk-through:
 - Workers: health, hygiene, & training
 - Soil amendments
 - Wildlife, domesticated animals, & land use
 - Agricultural water
 - Buildings, toilet & handwashing facilities
 - Postharvest handling
 - Cleaning & sanitizing
- Records review
- Exit interview to discuss observations





In general...

Washington farms have good produce safety practices, protecting consumers of Washington-grown produce and the state's reputation in the global market!

Takeaways



Any produce commodity can be contaminated and associated with a foodborne illness outbreak



The Produce Safety Rule is focused on *prevention*



Always wash your produce before cutting and eating



The WSDA Produce Safety Program is here to help growers and packers understand and comply with the requirements of the Produce Safety Rule



Questions?

Connie Fisk, PhD
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agr.wa.gov/producesafety

