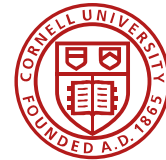




Produce Safety

ALLIANCE

Kristin Woods
PSA Southeast Regional
Extension Associate



Cornell University

extension
ALABAMA A&M & AUBURN UNIVERSITIES



Produce Safety Alliance

- Cooperative agreement between Cornell University, FDA, and USDA
- Established in 2010
- Focused on outreach and education
- Assist growers with meeting regulatory requirements



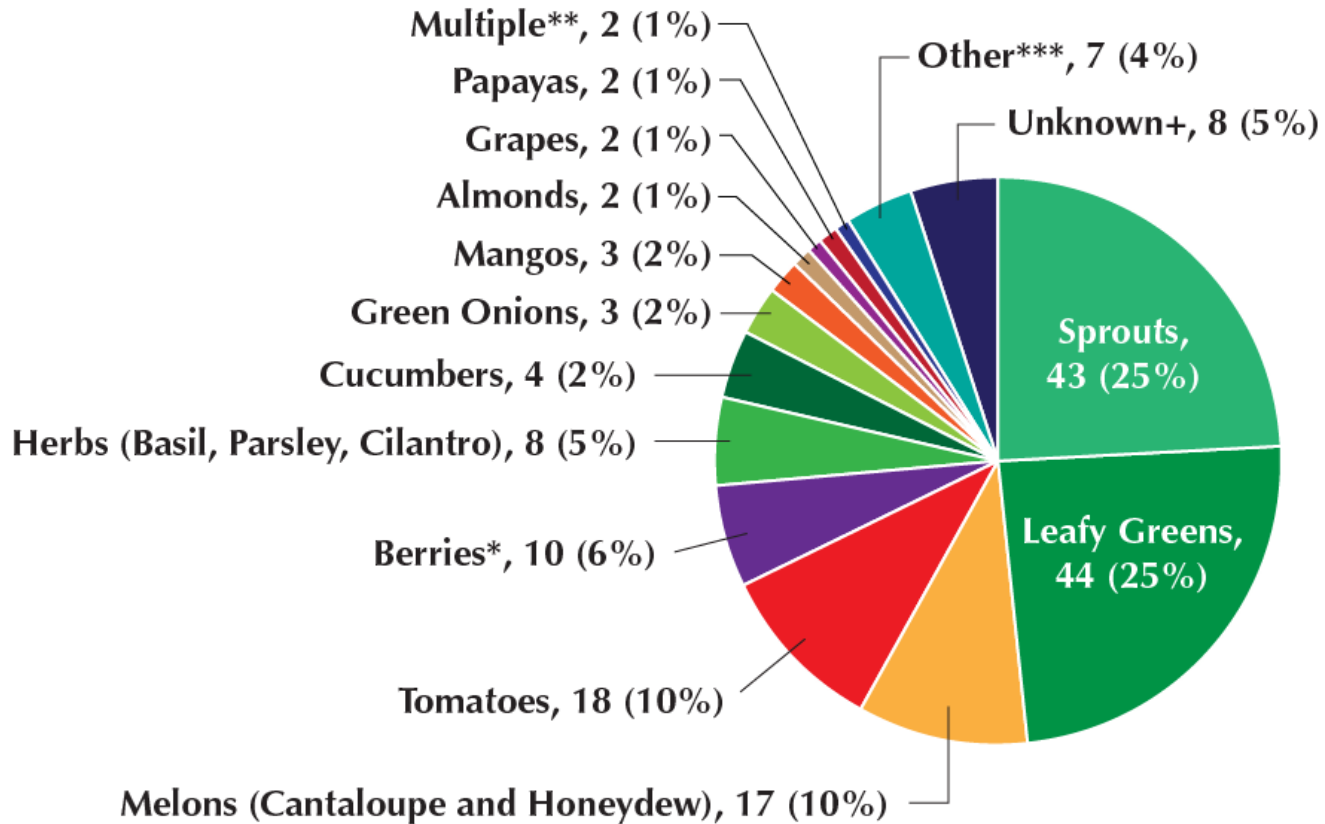
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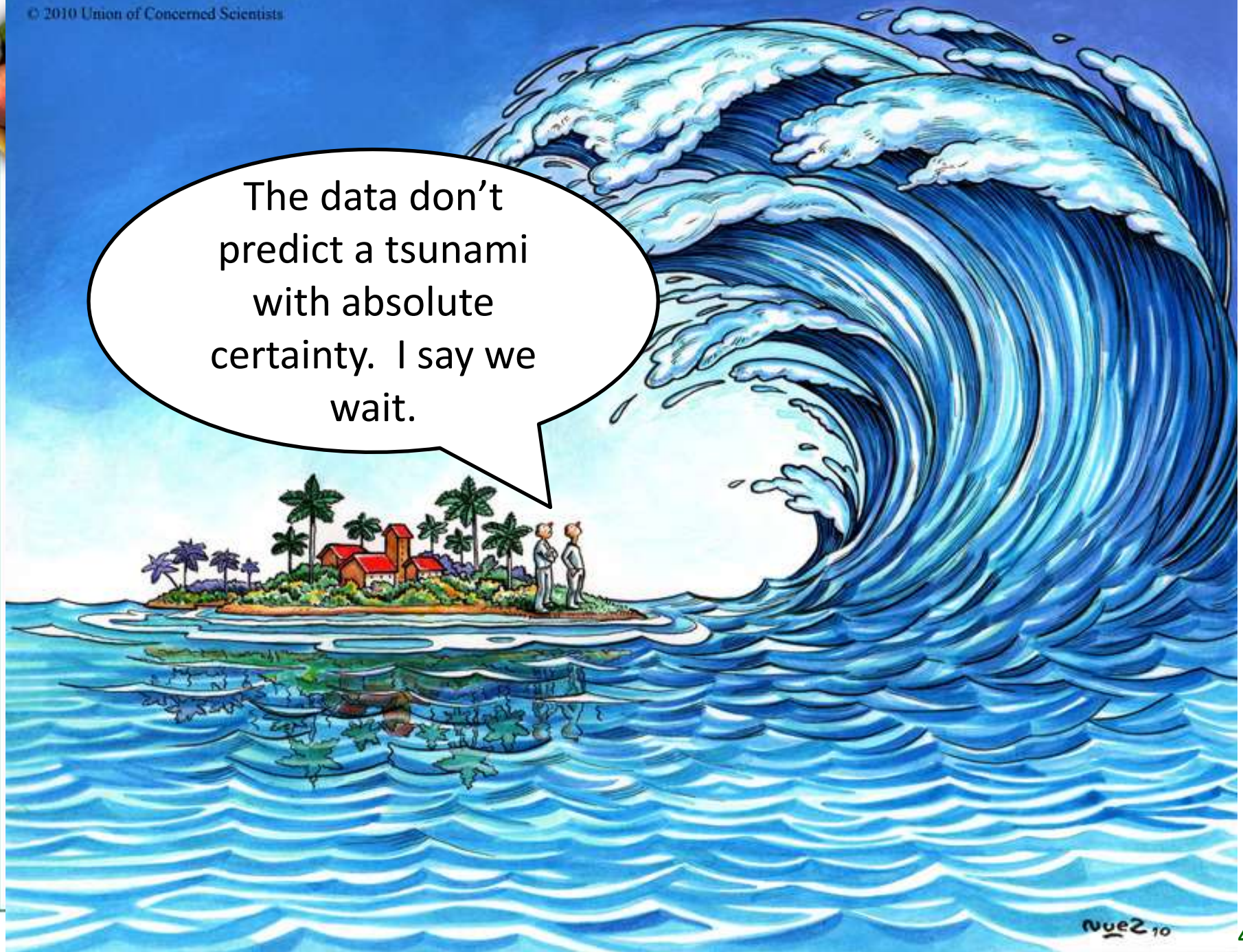
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Outbreaks Associated with Produce

FDA Outbreaks Linked to Produce Contamination Likely Prior to Retail: 1996–2014



The data don't
predict a tsunami
with absolute
certainty. I say we
wait.





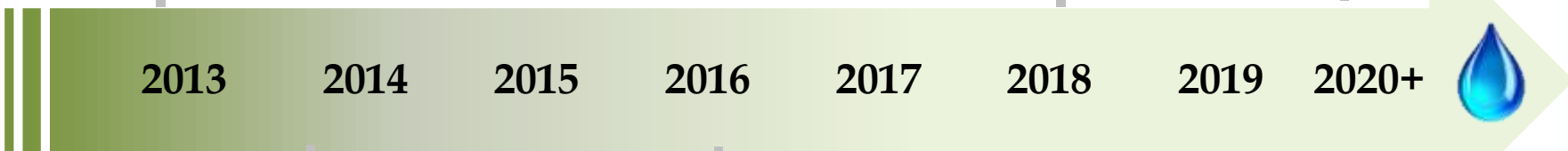
FSMA PSR Time Frame

Draft Rule Released



Very small growers
(\$25-250K)

Large growers
(>\$500K)



Public Comment

Compliance date
January 2016

Small growers
(\$250-500K)

Supplemental Comments

Add an additional 4
years proposed for
compliance with the
water standards



Exclusions & Exemptions

- Some growers may be **excluded** based on:
 - Produce sales <\$25,000
 - Commodities grown are rarely consumed raw
- Some growers may be **exempt** based on:
 - Processing activities that include a ‘kill step’
 - Average annual food sales and to ‘qualified end users’



Qualified Exemption

1. The average annual value of all food the farm sold during the 3-year period preceding the applicable calendar year was less than \$500,000

AND

2. During the previous 3-year period, more than half of the average annual value of the food the farm sold was directly to qualified end-users

- A qualified end user is: a consumer, or a restaurant or retail food establishment that is located in the same state or the same Indian reservation as the farm or not more than 275 miles from the farm



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The PSR Subparts

A – General Provisions

B – General Requirements

C – Personnel Qualifications
and Training

D – Health and Hygiene

E – Agricultural Water

F – Biological Soil

Amendments of Animal
Origin and Human Waste

I – Domesticated and Wild
Animals

K – Growing, Harvesting,
Packing, and Holding
Activities

L – Equipment, Buildings,
Tools, and Sanitation

M – Sprouts

N – Analytical Methods

O – Records

P, Q, R – Variances,
Compliance, and Withdrawal
of Qualified Exemptions



Highlights

- **Worker Training**
- **Animals & Soil Amendments**
- **Water**
- **Postharvest Sanitation**





Training Requirements: Farm Workers



- All personnel who handle produce or food contact surfaces, or who are supervisors of said personnel, **must receive adequate training per person's duties**, upon hiring and periodically thereafter, at least once annually
- Training must be conducted in a manner that is **easily understood** by personnel being trained



Workers

Proper Use of Toilets and Sinks



Clothing, jewelry, & footwear



Harvest



Break Areas



Illness or Injury



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Worker Training Log

Name of operation:

Date:

Trainer:

Training Time:

Location:

Training material (Please attach any written materials to this log with a staple):

Employee Name (please print)

Employee Signature

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

13. _____

14. _____

15. _____

Reviewed by:

Title:

Date:



Reducing Soil Amendment Risks

- Selection
- Treatment
- Application Timing
- Application Methods
- Handling and Storage
- Recordkeeping





Animals & Soil Amendments

- Soil amendments of animal origin are considered highest risk
 - Raw manure
 - 'Aged' or 'stacked' manure
 - Untreated manure slurries
 - Untreated manure teas
 - Agricultural teas with supplemental microbial nutrients
 - Any soil amendment mixed with raw manure





Recordkeeping: On-Farm Composting

Key factors in the composting process must be documented. These may include the following steps depending on the process used:

- Time
- Temperatures
- Turnings





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What Water Must Meet Requirements?

Agricultural water means water that is intended to, or is likely to, contact covered produce or food contact surfaces.





Production Water Uses Include:

- Irrigation
- Fertigation
- Crop sprays
- Cooling
- Frost protection
- Dust abatement
- Other uses where water directly contacts produce





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Water Quality Criteria for Water Used During Growing Activities

- Geometric mean of **126 or fewer** CFU generic *E. coli* per 100 mL water

AND

- Statistical threshold value of **410 or fewer** CFU generic *E. coli* per 100 mL water



Microbial Water Quality Profile: Surface Water

START:

Establish initial water quality profile
At least 20 samples over 2-4 years



ANNUALLY AFTER START:

Collect at least 5 samples for analysis
Insert annual data into rolling data set



IF YOUR WATER CHANGES:

If the water quality profile no longer represents the quality of the water source, establish a new profile

IF YOUR PROFILE DOES NOT MEET GM OR STV CRITERIA:

As soon as practicable and no later than the following year, discontinue use of the water unless an allowed corrective measure is applied



ALLOWED CORRECTIVE MEASURES:

1. Apply a time interval to allow die-off (before harvest or end of storage) or removal
2. Re-inspect the water system, identify problems, and make necessary changes
3. Treat the water



Water Quality Criterion for Harvest and Postharvest Activities

- Water must have no detectable generic *E. coli* per 100 mL sample
 - Direct contact with covered produce during or after harvest
 - Direct contact with food contact surfaces
 - To make ice
 - For handwashing
- Untreated surface water may not be used for these purposes





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Agricultural Water Quality

Agricultural water must be safe and of adequate sanitary quality for its intended use





Packing Areas

Open



Fully Enclosed



Produce Safety Curriculum

~ **Seven hours of instruction**

- Introduction to Produce Safety
- Worker Health, Hygiene, and Training
- Soil Amendments
- Wildlife, Domestic Animals, & Land Use
- Water: Production and Postharvest Water
- Postharvest Handling and Sanitation
- How to Develop a Farm Food Safety Plan

Completion of course results in certificate from Association of Food and Drug Officials (AFDO) to meet regulatory requirement for training



Course Manuals

- Full modules with extensive notes
- Table aligns modules with Produce Safety Rule
- Resources for developing written farm food safety plans, SOPs, recordkeeping
- Resources from FDA and USDA (AMS & NRCS)



Summary

- The PSR is similar to GAPs, in most cases
- A few records are required
- Water standard implementation is delayed
- Training is key – see you at a PSA Training!





The PSA Website

<http://producesafetyalliance.cornell.edu/>

- Like us on Facebook!



- Or Follow us on Twitter!



@Produce_Safety

Produce Safety Alliance

Training News Resources Food Safety Modernization Act The Alliance Contact Us

Portland Market

WELCOME TO THE PRODUCE SAFETY ALLIANCE WEBSITE!

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Providing fundamental, science-based, on-farm food safety knowledge to fresh fruit and vegetable farmers, packers, regulatory personnel and others interested in the safety of fresh produce.

The Produce Safety Alliance (PSA) is a collaboration between Cornell University, FDA, and USDA to prepare fresh produce growers to meet the regulatory requirements included in the United States Food and Drug Administration's Food Safety Modernization Act (FSMA) Produce Safety Rule.

STAY UP-TO-DATE!

- Read our latest newsletter: January 2017
- August 2016 PSA Factsheet

Join the PSA Listserve!

The listserv is a great way to receive the most current information related to educational and training opportunities, FSMA updates, and produce safety research and events.

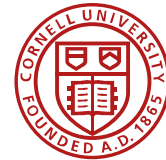
Join the listserv



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