Food Safety Modernization Act
Oklahoma Training Programs

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What is the Food Safety Modernization Act (FSMA)?

• Seven Primary Rules:

1. **Produce Safety Rule – Final published Nov. 2015**

2. Preventive Controls for Human Food – (packing, fresh-cut, etc.)

3. Preventative Controls for animal food

4. Foreign Supplier Verification Program

5. Accreditation of 3rd party auditors

6. Sanitary transport of human & animal food

7. Prevention of intentional contamination
FSMA Produce Safety Standard covers “Produce”

• “Produce” is defined as fruits and vegetables
• “Produce” includes mushrooms, sprouts, herbs and tree nuts
• “Produce” does not include grains
• There are some limitations on the type of “produce” that is covered
Basic exemptions from FSMA produce safety rules

• Produce for personal consumption
• Produce intended for commercial processing with a “kill step”
  – e.g. canning; grower will need to keep sales records.
• Produce typically **not** consumed raw (FDA list)
  – e.g. potatoes
• Produce that is not defined as a raw agricultural commodity
  – Processed products, e.g. fresh-cut produce.
As a fresh produce grower you are exempt if:

• Your farm has a 3-year average of < $25k in annual produce sales
• Your farm has a 3-year average of < $500k in annual produce sales, and
  – a majority of the food (by value) is sold directly to “qualified end-users”
  – “Qualified End-User” means:
    • the consumer of the food (“consumer” is not a business)
    • a restaurant or retail food establishment that is located:
      – in the same State as the farm that produced the food
      – not over 275 miles from the farm that produced the food
What do the proposed FSMA standards cover?

• Five key areas that focus on commonly identified routes of microbial contamination of produce:

  1. Agricultural water
  2. Farm worker hygiene
  3. Manure and other soil amendments
  4. Animals in production areas
  5. Equipment, tools and buildings

• There are also specific proposed standards for sprouts
Agricultural water defined

• **First type:**
  – Irrigation water that comes in direct contact with edible portions of produce
  – Water used in sprays that come in direct contact with edible portions of produce

• **Second type:**
  – Water used to wash or cool produce during/after harvest
  – Water used to make compost tea or other agricultural teas
  – Water used for hand washing or cleaning food contact surfaces
FSMA testing requirements for agricultural water

• Treated (sanitized) water does not require routine testing

• Untreated surface water:
  – Baseline established by taking a minimum of 20 samples collected as close as practical to harvest over 2 growing seasons
  – After baseline established, 5 samples per growing season must be tested

• Untreated ground water:
  – Baseline established by taking a minimum of 4 samples collected as close as practical to harvest over a single growing season
  – After baseline established, 1 sample per growing season must be tested
Test limits for agricultural water

• Irrigation and spray water:
  – The average of all samples should not exceed 126 CFU of generic E.coli per 100 mL of water and no more than 10% of the samples tested may exceed 410 CFU of generic E.coli in 100 mL of water

• Packing shed, hand washing, produce cooling/washing, and/or compost-tea water:
  – No detectable generic E.coli per 100 mL of water
Water Testing

• What we need to test for:
  – Generic E. coli
  – Detection of generic E. coli indicates:
    • Fecal contamination

• Tests
  – Quantified generic E. coli
    • How many are there?
  – Testing methods:
    • EPA method 1603 or equivalent method
  – How to find qualified labs:
    • [https://labaccreditation.deq.ok.gov/labaccreditation/](https://labaccreditation.deq.ok.gov/labaccreditation/)
Options if water fails testing

• Stop using water source, treat water and re-test.
• Apply an interval of days between last irrigation and harvest, using a microbial die-off rate of 0.5 log (logarithmic dilution) per day.
• Apply an interval of days between harvest and the end of storage using appropriate microbial die-off or removal rates, provided there is adequate supporting data.
• Apply appropriate microbial removal rates during such activities as washing, provided there is adequate supporting data.
Soil amendments

• Untreated manure:
  – For now-Based on NOP: 120-day interval between the application of manure and harvest for crops in contact with the soil and 90 days for crops not in contact with the soil.

• Compost:
  – No minimum application interval if:
    • Compost is processed to meet a microbial standard specified in the Produce Safety rule.
    • It is applied in a manner that minimizes the potential for contact with produce during and after application.
Specific approved composting methods

• Static composting that maintains aerobic (i.e., oxygenated) conditions at a minimum of 131°F (55 °C) for 3 days and is followed by adequate curing, which includes proper insulation.

• Turned composting that maintains aerobic conditions at a minimum of 131°F (55 °C) for 15 days, with a minimum of five turnings, and is followed by adequate curing, which includes proper insulation.
More information on specific proposed requirements:

- Further information on the specific proposed standards for each of the five focus areas can be found here:
  - FSMA Facts – Farmer’s Toolkit
Recordkeeping

• In general, records need to be kept to document that certain standards are being met, such as:
  – Agricultural water microbial testing results
  – Composted manure microbial testing results
  – Worker training efforts
  – Building and/or equipment cleaning/sanitizing program
• Records that are already being kept for other purposes need not be duplicated
Implementation timeline

• **Effective Date for FSMA rules:** 60 days after a final rule is published (November, 2015)

• **Very Small Businesses** (3-year average of more than $25K and less than $250K in annual produce sales)
  – 4 years after effective date for most requirements, 6 years for some water-related testing and record-keeping requirements

• **Small Businesses** (3-year average of more than $250K and less than $500K in annual produce sales)
  – 3 years after effective date for most requirements, 5 years for some water-related testing and record-keeping requirements

• **All Others**
  – 2 years after effective date for most requirements, 4 years for some water-related testing and record-keeping requirements
Alliances Connected to FSMA

• Stay connected with FSMA E-mail updates at: https://public.govdelivery.com/accounts/USFDA/subscriber/new?topic_id=USFDA_206

• Sprout Safety Alliance
  – FDA & Illinois Institute of Technology’s Institute for Food Safety and Health created the Sprouts Safety Alliance http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm293429.htm

• Food Safety Preventive Controls Alliance
  – FDA & Institute for Food Safety and Health, has created the Food Safety Preventive Controls Alliance http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm284406.htm

• Produce Safety Alliance
  – FDA & The Produce Safety Alliance have developed the curriculum for informing farmers about safety of fresh produce http://producesafetyalliance.cornell.edu/
Produce Safety Alliance

(PSA) UPDATE
FDA Partner

- Produce Safety Alliance was charged with developing a national education and training program for farmers, packers, and regulatory personnel
- Housed at Cornell University’s National GAPs Program and funded by the U.S. Department of Agriculture (USDA) and the FDA
- Has in-state partners in most states, including Oklahoma State University
- Has completed the USDA-FDA approved training curriculum
- Web site: [http://www.producesafetyalliance.cornell.edu/](http://www.producesafetyalliance.cornell.edu/)
Produce Safety Alliance Grower Training

• 8 modules:
  1. Introduction to Produce Safety
  2. Worker Health, Hygiene, and Training
  3. Soil Amendments
  4. Wildlife, Domesticated Animal, and Land Use
  5. Agricultural Water: Production Water
  6. Agricultural Water: Postharvest Water
  7. Postharvest Handling and Sanitation
  8. How to Develop a Farm Food Safety Plan
PSA-Sample Training Module
Module 6: Postharvest Handling & Sanitation Preventative Controls

• **Assessment of Risk**
  – **Objective 1:** Identify potential routes of contamination

• **Good Agricultural Practices**
  – **Objective 2:** Identify key sanitary practices
  – **Objective 3:** Identify the steps involved in cleaning and sanitizing
  – **Objective 4:** Define key parts of a pest control program
  – **Objective 5:** Describe key practices for transporting fresh produce

• **Monitoring**
  – **Objective 6:** List key practices that need to be monitored

• **Corrective Actions**
  – **Objective 7:** Describe postharvest handling and corrective actions that could be taken to reduce produce contamination

• **Record Keeping**
  – **Objective 8:** Identify key records to document postharvest handling
Overall Schedule

- Training modules were finalized in (2016)
- “Train the trainer” sessions have begun and will be conducted (2016-2017)
- Grower training workshops (1 day) will be conducted (2017)
- Note: the timeline of any future trainings depends a great deal on when we have “Lead Trainers” ready to go
Additional online resources

• FDA Questions Website: http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm459719.htm


• Guide to Minimize Microbial Hazards for Fresh Fruits and Vegetables: http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/ucm064574.htm#preface

• Cornell University Good Agricultural Practices Publications: http://gaps.cornell.edu
  includes:
  • Food Safety Begins on the Farm – a grower’s guide
  • Food Safety Begins on the Farm – a grower’s self-assessment
  • GAP Signage (English & Spanish)
What Do You Think?

• You’ve heard about FSMA & training:
  – What type of workshop would you prefer?
    • One day 8 hour workshop
    • Two day 4-5 hours/day workshop
  – Additional section on developing your farm food safety plan