To connect to audio:

- Participants dial: 866-906-9888
- Access code: 8140591
Instructions

• All participants are muted.
• There will be time for questions and answers at the end of the presentation.
  – An operator will join at the end and provide instructions for how to ask questions.
  – We may not get around to all comments/questions, BUT you may leave additional comments in the comment box to be compiled after the session.
• This session will be recorded, sent out to the listserve, and archived on the PSA website.
Agenda

• Welcome
  ▪ Dr. Betsy Bihn, Produce Safety Alliance Director

• Final FSMA Produce Safety Rule Update
  ▪ Dr. Karen Killinger—Staff Fellow, Produce Safety Staff

• Question & Answer Session
  ▪ Produce Safety Staff

• PSA Training Update
  ▪ Gretchen Wall, Produce Safety Alliance Coordinator
Final Rule on Produce Safety
http://www.fda.gov/fsma
Background - 1

• FDA issued proposed rule on Jan. 16, 2013.
  – Proposed standards for the growing, harvesting, packing, and holding of produce

• FDA issued supplemental notice of proposed rulemaking on Sept. 29, 2014.
  – Described FDA’s thinking on specific issues related to:
    • coverage of rule, water quality, raw manure, wildlife conservation, and withdrawal of qualified exemption
Background - 2

• Final comment period closed on December 15, 2014

• Extensive stakeholder outreach and input
  – Four public meetings; various outreach efforts
  – About 36,000 submissions, including over 15,000 unique comments, in response to both 2013 and 2014 documents
  – Input from various sectors of stakeholder community
Public Health Impact

- Expected decrease in illness from microbial contamination of produce (RIA)
  - 362,059 illnesses per year
  - Valued at $976 million per year

- FDA outbreak surveillance data from 1996-2014 for produce-related outbreaks (QAR)
  173 outbreaks       17,226 illnesses       68 deaths
Regulatory Framework

- Framework considers many factors associated with produce and the farming community, including:
  - Diversity of operations
  - Broad range of crops and practices

- Integrated approach that draws on current scientific information, outbreak data, past experiences:
  -Focuses on identified routes of contamination, rather than commodity-based
  -Includes Current Good Manufacturing Practice-like provisions; numerical criteria; and monitoring provisions
Coverage of Rule

Covers
• Domestic and imported produce
• Produce for human consumption

Does not cover
• Produce for personal or on-farm consumption
• Produce not a “raw agricultural commodity”
• Certain specified produce rarely consumed raw
• Farms with produce sales of ≤ $25,000 per year

Eligible for exemption (with modified requirements)
• Produce that will receive commercial processing (“kill-step” or other process that adequately minimizes hazards)
• Qualified exemption
Farms

• “Farm” definition was revised to clarify that the relevant entity is the farm business
• First defined as part of Implementation of the Bioterrorism Act of 2002, for registration and recordkeeping regulations (21 CFR Part 1, subparts H and J)
Primary Production Farm

• An operation under one management in one general, but not necessarily contiguous, physical location

• Devoted to the growing of crops, the harvesting of crops, the raising of animals, or any combination of these activities

• In addition to these activities, a primary production farm can:
  – Pack or hold RACs (regardless of who grew or raised them)
  – Manufacture/process, pack, or hold processed foods so long as:
    • all such food is consumed on that farm or another farm under the same management; or
    • the manufacturing/processing falls into limited categories
Secondary Activities Farm

- An operation not located on a primary production farm devoted to harvesting, packing, and/or holding RACs
- The primary production farm(s) that grow, harvest, and/or raise the majority of those RACs must own or jointly own a majority interest in the secondary activities farm
- The definition also allows certain, limited additional manufacturing/processing, packing, and holding
  - Same as those for a primary production farm
Qualified Exemption

Farms are eligible for a qualified exemption (and must meet certain modified requirements) if:

- Less than $500,000 annual food sales; and
- Majority of food sales to "qualified end-users", i.e.,
  - Consumer of the food; or
  - Restaurant or Retail food establishment located in the same state or Indian reservation, or located within 275 miles of farm

(The term “consumer” does not include a business.)
Variances - Flexibility

- A state, tribe, or foreign country may petition FDA for a variance from some or all provisions
  - if necessary in light of local growing conditions
  - Practices under the variance need to provide the same level of public health protection as the rule and not increase the risk that produce is adulterated
Alternatives – Flexibility

• Farms may establish alternatives to certain, specified requirements only
• Farm must have scientific information that the alternative provides the same level of public health protection as the relevant requirement and does not increase the likelihood of adulteration
Standards for Produce Safety

Focus on conditions and practices identified as potential contributing factors for microbial contamination

- Agricultural water
- Biological soil amendments of animal origin
- Worker health and hygiene
- Equipment, tools, buildings and sanitation
- Domesticated and wild animals
- Growing, harvesting, packing and holding activities
- Sprouts requirements
Agricultural Water - 1

• Safe and adequate sanitary quality of water
• Inspection of water system under farm’s control
• Water treatment, if a farm chooses to treat water
• Tiered approach to water testing
• Specific microbial criteria for water used for certain purposes
• Corrective measures
• Records requirements
Agricultural Water-2

Water used during growing activities for produce other than sprouts

- Frequency of testing dependent on water source
  - Lower frequency for untreated groundwater
  - Higher frequency for untreated surface water

- Microbial Water Quality Profile (MWQP)
  - Initial survey to develop MWQP
    - Minimum of 2 years, but no more than 4 years
  - Annual survey to update MWQP using a rolling dataset
  - Re-characterize MWQP under certain conditions

- Enables farms to understand their water source to determine appropriate use
Stringency of microbial criteria is dependent on use:

- For activities e.g. post-harvest wash, sprout irrigation
  - No detectable generic *E. coli*
- For growing activities such as non-sprout irrigation
  - GM of 126 CFU/100 mL or less generic *E. coli* and STV of 410 CFU/100 mL or less generic *E. coli*
  - Allows for microbial die-off in-field, between last irrigation and harvest, of up to 4 consecutive days
  - Allows for microbial reduction or removal post-harvest, including through commercial practices or storage
Biological Soil Amendments of Animal Origin - 1

• Standards for “treated” and “untreated”
• Restrictions on application method depending on treatment status
  – Application-to-harvest interval for certain “untreated” BSAs of animal origin is [reserved]
  • Currently working on risk assessment
• Processes for meeting “treated” standard for BSAs of animal origin, including two examples for composting
  – The microbial standards are not testing requirements
Training Requirements

• Requirements include:
  – All personnel who contact covered produce or food-contact surfaces
    • Establishes minimum content expectations for training
  – Training for supervisors
  – Record requirements
Worker Health and Hygiene

• Pathogens may be transmitted from workers to food

• Requirements include:
  – Preventing contamination by ill persons
  – Hygienic practices
  – Farms must make visitors aware of policies and give them access to toilet and hand washing facilities.
Equipment, Tools, Buildings and Sanitation

• Requirements include:
  – Equipment/tools: designed and constructed to allow adequate cleaning and maintenance.
  – Food contact surfaces of equipment and tools must be inspected, maintained, cleaned, and sanitized as necessary.
  – Buildings: size, design and construction must facilitate maintenance and sanitary operations.
  – Toilet and hand-washing facilities must be adequate, and readily accessible during covered activities.
Growing, Harvesting, Packing, and Holding Activities

• Requirements include:
  – Separate covered and excluded produce not grown in accordance to the rule
  – Identify and not harvest covered produce that is reasonably likely to be contaminated
  – Not distributing covered produce that drops to the ground before harvest
  – Food-packing material appropriate for use
Domesticated and Wild Animals

- Unified requirements for grazing, working, and wild animals:
  - Assess, as needed, relevant areas during growing for potential animal contamination;
  - If significant evidence of potential contamination is found (e.g., animal excreta, animal observation or destruction),
    - Evaluate whether covered produce can be harvested
    - Take steps throughout the growing season to ensure that covered produce that is reasonably likely to be contaminated will not be harvested
Impact on Wildlife and Animal Habitat

- Codified provision (developed in consultation with USDA's NRCS and the U.S. Fish and Wildlife Services):
  - Regulation does not authorize “taking” of endangered or threatened species; or require measures to destroy animal habitat or exclude animals from outdoor growing areas
Requirements for Sprouts -1

• Sprout requirements include:
  - Treating seed and beans before sprouting
  - Testing spent sprout irrigation water (or sprouts, in some cases) for certain pathogens
  - Monitoring the growing, harvesting, packing, and holding environment for *Listeria* species or *Listeria monocytogenes*
  - Discontinuing use of seeds or beans when spent irrigation water (or sprouts) is associated with a foodborne illness or a positive pathogen finding
Significant changes in final rule include:

• Staggered compliance dates based on operation size begin 1 year after effective date of the rule; no additional time for water provisions

• Exclude soil- or substrate-grown sprouts harvested without their roots

• Criteria established for spent irrigation water testing to account for emerging pathogens

• Establish a written sampling plan and a corrective action plan for testing of spent irrigation water (or sprouts)

• New provisions to prevent contaminated product entering commerce (incl. “hold-and-release” -- must not allow sprouts to enter commerce until negative pathogen testing results are received)
## Staggered Compliance Dates

<table>
<thead>
<tr>
<th>Size of covered farm</th>
<th>Covered activities involving sprouts covered under subpart M (i.e., subject to all requirements of part 112)</th>
<th>Covered activities involving all other covered produce (i.e., subject to part 112, except subpart M)</th>
<th>Farms eligible for a qualified exemption (if applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Compliance date for certain specified agricultural water requirements</td>
<td>Compliance date for all other requirements</td>
<td>Compliance date for retention of records supporting eligibility in § 112.7(b)</td>
</tr>
<tr>
<td></td>
<td>Compliance date for modified requirement in §§ 112.6(b)(1)</td>
<td>Compliance date for all other requirements in §§ 112.6 and 112.7</td>
<td></td>
</tr>
<tr>
<td>Time periods starting from the effective date of rule (60 days after final rule is published)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very small business ≤$250,000*</td>
<td>3 years</td>
<td>6 years</td>
<td>4 years</td>
</tr>
<tr>
<td>Small business ≤$500,000</td>
<td>2 years</td>
<td>5 years</td>
<td>3 years</td>
</tr>
<tr>
<td>All other businesses</td>
<td>1 year</td>
<td>4 years</td>
<td>2 years</td>
</tr>
</tbody>
</table>

* Farms with <25,000 in produce sales are exempt
Costs and Benefits

• Annualized benefits (at 7%) of averting approximately 331,964 produce-related illnesses = $925M ($976M at 3%)
• Annualized costs (at 7%) = $366M ($387M at 3%)
Guidance

• Implementation and Compliance Guide
• Sprout Guidance
• Small Entity Compliance Guide
• Updated GAPs Guidance
Education, Outreach, Training and Technical Assistance Partnerships

• Alliances
  – Produce Safety Alliance
  – Sprout Safety Alliance
  – Food Safety Preventive Controls Alliance

• FDA/USDA-NIFA Collaboration: National Food Safety Training, Education, Extension, Outreach, and Technical Assistance Program

• Training through Cooperative Agreements
FDA’s Role in Education, Outreach, Training, and Technical Assistance

- FDA Guidance documents
- National Technical Assistance Network
- Information Center

Partnerships will be essential
For More Information

- Web site: www.fda.gov/fsma
- Subscription feature available
- To submit a question about FSMA, visit www.fda.gov/fsma and go to Contact Us
QUESTIONS/DISCUSSION
Training Update

• Currently awaiting final FDA approval of module edits based on final rule
• Launching Train-the-Trainer Courses in early 2016
  – Sign up for the general listserv to receive announcements
  – Trainer pre-application NOT required, will be part of registration for each course
PSA Trainer Development

1. **Attend a PSA Train-the-Trainer Course (2 days)**
   - At conclusion of course, individual is PSA Trainer
   - Can deliver any of the seven curriculum modules under the supervision and course registration of a PSA Lead Trainer
   - May proceed with an interview to become a PSA Lead Trainer

2. **Schedule a Lead Trainer Interview**
   - Toll-free teleconference call, no longer than 1 hour
   - Evaluates trainers on 4 competency areas, questions based on curriculum materials, Train-the-Trainer Course prepares trainers for this process
   - Successful completion results in individual becoming a PSA Lead Trainer
   - Can train solo, or as part of a team

All this information and MORE on the PSA website!
PSA New Hires

Northwest: Reviewing/Accepting Applications
Donna Pahl, M.S.

Midwest: Don Stoeckel, Ph.D.

Southeast: Kristin Woods, Ph.D.

PSA Extension Aide
Michele Humiston
PSA & The FSMA Training Strategy

• FDA released their training strategy on October 6
  – [http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm461513.htm](http://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm461513.htm)

• PSA is included as one of the major components for outreach and training

• PSA personnel is working with both the newly established National Coordination Center and the Regional Centers (RCs)
  – Only two RCs currently awarded

• PSA REAs will help facilitate and host PSA trainings with regional and national collaborators
Contact Us!

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