Extension Update 2018

Zack Snipes
Clemson Extension
FSMA-PSR

- Food Safety Modernization Act (FSMA)
  - Produce Safety Rule (PSR)
  - Chad Carter-Clemson Extension-Charleston
  - Morgan Whalen-SC Department of Agriculture
What is FSMA?

- Food Safety Modernization Act
- Law signed on January 4, 2011
  - 7 Rules
    - Produce Safety Rule (Growing, Harvesting, Packing, and Holding of Produce for Human Consumption)
    - Preventative Controls for Human Food
    - Preventative Controls for Animal Food
    - Foreign Supplier Verification Programs
    - Accreditation of Third-Party Auditors/Certification Bodies
    - Sanitary Transportation of Human and Animal Food
    - Prevention of Intentional Contamination/Adulteration
Where do I fit in?

- Produce Safety Rule (PSR)
  - Does this rule apply to me?

- A farm can be:
  - Exempt
  - Qualified Exempt
  - Under the rule

- Compliance Dates
  - Greater than $500,000 in annual sales- 1/26/18
  - Between $500,000-250,000 in annual sales- 1/26/19
  - Between $250,000-25,000 in annual sales- 1/26/20

- Do not assume, there are caveats that make it confusing
What do I HAVE to do?

- Find out where you fall according to the rule (see handout or see me)
- Attend Produce Safety Rule Training by your compliance date
- Establish food safety on farm
  - Inspections…???
  - 2 years from compliance date to have water testing and recordkeeping in place???

- Link to see where you fall according to the rule:
Universal Food Safety

- Worker Hygiene, Health, and Training
- Soil Amendments
- Wildlife, domesticated animals, and land use
- Agricultural Water
- Post-Harvest Handling and Sanitation
What’s Next

◇ This is new to everyone…growers, extension, inspectors, people who wrote the law, scientists, etc

◇ Statewide FSMA trainings
◇ Extension Trainings
◇ On-Farm/Office Visits
◇ For more information:
  ◇ SC Dept of Agriculture
  ◇ Produce Safety Alliance-Cornell University
    ◇ https://producetimelinessalliance.cornell.edu/
  ◇ NC State-Fresh Produce Safety
  ◇ FDA
    ◇ http://www.fda.gov/Food/GuidanceRegulation/FSMA/default.htm
There are many food safety programs

- FSMA
- GAP
- GlobalGAP
- PRIMUS

- Principals of all of these programs is almost identical
- A farm that is in tip-top shape does not necessarily mean they are FSMA compliant
2017 Extension Update

- Bacterial Spot Spray Trial in Tomato
- Fruit Orchard @ CREC
- Grower’s Toolbox Workshop
- GAP Shed & Wholesale Success Workshop
- Pesticide Safety and Calibration Workshop Series
- “New” Entomologist and Weed Scientist @ CREC
Bacterial Spot Spray Trial @ Boone Hall Farms
## Treatment List

<table>
<thead>
<tr>
<th>Trt Lin</th>
<th>Trt No</th>
<th>Product</th>
<th>Form Conc</th>
<th>Fm Tp</th>
<th>Appl Rate</th>
<th>Rate Unit</th>
<th>Appl Meth</th>
<th>Appl Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>UNTREATED CHECK</td>
<td>0</td>
<td>NA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>ACTIGARD</td>
<td>50</td>
<td>WG</td>
<td>0.33</td>
<td>DZ W/T/A</td>
<td>FCSP</td>
<td>AB</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>LEAP</td>
<td>0.48</td>
<td>SE</td>
<td>1</td>
<td>CT/A</td>
<td>FCSP</td>
<td>CEGI</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>MANKOCIDE</td>
<td>61.1</td>
<td>WG</td>
<td>2</td>
<td>LB/A</td>
<td>FCSP</td>
<td>EDFH</td>
</tr>
<tr>
<td>5</td>
<td>3</td>
<td>ACTIGARD</td>
<td>50</td>
<td>WG</td>
<td>0.33</td>
<td>DZ W/T/A</td>
<td>FCSP</td>
<td>AB</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td>ACTINOVATE AG</td>
<td>10</td>
<td>SP</td>
<td>10</td>
<td>DZ W/T/A</td>
<td>FCSP</td>
<td>CEGI</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>LEAP</td>
<td>0.48</td>
<td>SE</td>
<td>1</td>
<td>CT/A</td>
<td>FCSP</td>
<td>CEGI</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>MANKOCIDE</td>
<td>61.1</td>
<td>WG</td>
<td>2</td>
<td>LB/A</td>
<td>FCSP</td>
<td>EDFH</td>
</tr>
<tr>
<td>9</td>
<td>4</td>
<td>ACTIGARD</td>
<td>50</td>
<td>WG</td>
<td>0.33</td>
<td>DZ W/T/A</td>
<td>FCSP</td>
<td>AB</td>
</tr>
<tr>
<td>10</td>
<td>4</td>
<td>ACTIGARD</td>
<td>50</td>
<td>WG</td>
<td>0.05</td>
<td>DZ W/T/A</td>
<td>FCSP</td>
<td>CE</td>
</tr>
<tr>
<td>11</td>
<td>4</td>
<td>ACTIGARD</td>
<td>50</td>
<td>WG</td>
<td>0.75</td>
<td>DZ W/T/A</td>
<td>FCSP</td>
<td>GI</td>
</tr>
<tr>
<td>12</td>
<td>4</td>
<td>MANKOCIDE</td>
<td>61.1</td>
<td>WG</td>
<td>2</td>
<td>LB/A</td>
<td>FCSP</td>
<td>EDFH</td>
</tr>
</tbody>
</table>
Disease Rating 8 days after 7\textsuperscript{th} application
47 days after planting
Yield (combined 4 harvest)
LB/A based on 6ftx 20ft plots

<table>
<thead>
<tr>
<th>Rate Unit</th>
<th>b UTC</th>
<th>a Leap Program 1.0 qt/A</th>
<th>a Leap/Actinovate Program 1, 10 qt/A, oz/A</th>
<th>ab Actigard Program 0.33, 0.50, 0.75 oz/A</th>
</tr>
</thead>
</table>
Fruit Orchard at Coastal Research Center
Fruit Orchard at Coastal Research Center

- **Blueberries**  
  - O’Neal, Suziblue, Legacy, San Joaquin, Miss Jackie, Alice Mae, Krewer, Titan

- **Pomegranate**  
  - Salavatski, Afganski, Nikitski Ranni, Kaj-ack-anor, Turk

- **Fig**  
  - Celeste, Brown Turkey, Chicago Hardy, Canandria, Tadota, Black Mission, Marseilles

- **Citrus**  
  - Improved Meyer, Owari, Browns, Dancy Tangerine, Page, Louisiana Sweet, Sweet Betty, Rio Red, Ruby Red, Mewia, Ponkan, Pumelo

- **Apple & Pear**  
  - Dorsett, Anna, Dorset Golden, Mutzu

- **Other**  
  - Kiwi, Pawpaw, Gogi Berry, Pineapple Guava, Loquat
Growers Toolbox Workshop

- Irrigation Basics
- Small Farm Tools
- Seed Starting
- Tractor Safety
- Resource Rodeo
  - USDA/NRCS, GrowFood Carolina
  - AgSouth, Farm Bureau
  - Clemson & USDA Scientists
- This year: April 11th
GAP Shed and Wholesale Success Workshops
Things to watch out for

- Deer Damage
- Strawberries
  - Buy chemicals ahead of time
  - MYIPM App
  - Watch for Spidermites
  - Bullnose-add Boron
- Tomato and Watermelon
  - Quality Transplants
- Sprayer calibration and nozzle selection
- Private License Expire: 12/31/2019
Tidbits I’ve Picked up lately

◊ Watermelon
  ◇ Use pollinizers, don’t use diploid melons

◊ Spinach
  ◇ Better germination in compost
  ◇ ¼ to ½ inch planting depth

◊ Spidermites
  ◇ Find them early and treat

◊ Dr. Keinath’s Fungicide plans
2018 Projects

- Statewide FSMA- Produce Safety Rule Trainings
- Gullah Grower Co-op Romaine Lettuce Trials
- Strawberry
  - Disease Forecasting
  - Resistance Sampling
  - SWD Monitoring
- Tomato Grafting Trials
- Fruit Cultivar Trials @ CREC
- High Tunnel Variety Selection & Planting Date
- Grower input for Grower Projects
- Farm Bureau Young Farmer and Rancher Program
Upcoming Programs

- **Worker Protection Standard Training**
  - Today

- **Soil Health, Tractor Safety, and Tractor Rodeo Field Day**
  - Charleston CREC, February 22nd, 8:30-3, FREE

- **Produce Safety Training (FSMA-PSR)**
  - Contact Morgan Whalen for more information: mwhelen@scda.sc.gov

- **SC Farmers Market Nutrition Program**
  - Statewide trainings (in Charleston March 6)
  - Contact LauraKate Anderson for more information: landerson@scda.sc.gov

- **2018 CREC Field Day**
  - June 6, 2018

- **2018 NC/SC Vegetable Growers Meeting- Myrtle Beach**

- **2019 Southeast Regional Fruit and Vegetable Expo- Savannah, Georgia**
International Paper

- Lesley Floyd
  - South Carolina Representative
  - 803-359-4791
  - Lesley.Floyd@ipaper.com
- Box program for growers
Resources

✧ Steve Richards- Clemson Extension Agribusiness Team
✧ LauraKate Anderson- SC Dept of Ag
✧ Southeast Vegetable Crop Handbook
✧ Southern Region Small Fruit Consortium (SRSFC)
  ✧ [www.smallfruits.org](http://www.smallfruits.org)
    ✧ I have PowerPoints on spray programs and new cultivars
✧ Commercial Kitchens
  ✧ Johns Island-Plow Ground Rd
  ✧ Walterboro
✧ Clemson Extension Charleston County
  ✧ [http://www.clemson.edu/extension/charleston/index.html](http://www.clemson.edu/extension/charleston/index.html)
✧ Coastal Research and Education Center Website
  ✧ [http://www.clemson.edu/public/coastal/](http://www.clemson.edu/public/coastal/)
✧ Pesticide License Information-Clemson Department of Pesticide Regulation
  ✧ [http://www.clemson.edu/public/regulatory/pesticide_regulation/](http://www.clemson.edu/public/regulatory/pesticide_regulation/)
Questions, Comments, Concerns

- Zack Snipes-Clemson Extension
- zbsnipe@clemson.edu
- 864-934-7922