

Produce Safety Rule and Agricultural Water Reuse

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Food Safety Modernization Act (FSMA)

- FSMA was signed into law January 4, 2011
 - Most sweeping reform of US food safety laws in over 70 years
 - Published in Federal Register November 27, 2015
 - Regulation became effective January 26, 2016
- Focus on prevention of food safety issues
 - Microbial contamination/human pathogens
- Seven Primary Rules within FSMA
 - **Produce Safety Rule**
 - 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

FSMA Produce Safety Rule

- Mandatory Federal Standard for the growing, harvesting, packing and holding of produce for human consumption
- Some growers may be eligible for an exemption based on:
 - Commodities grown
 - Processing activities
 - Average annual produce sales
 - Average annual food sales to “qualified end user”
- All growers should be mindful and take action to reduce food safety risks on the farm

Key Requirements of the Produce Safety Rule

- Worker Health, Hygiene, and Training
- Biological Soil Amendments
- Wildlife, Domesticated Animals, and Land Use
- **Agricultural Water – Production Water**
- **Agricultural Water - Postharvest Water**
- Post Harvest Handling and Sanitation
- Equipment, Tools and Sanitation

Compliance Dates

Business Size	Years to comply after 1-26-16
All other businesses (<\$500K)	2
Small Businesses (<\$250K - \$500K)	3
Very small businesses (<\$25K - \$250K)	4
<i>Compliance dates for certain aspects of the ag water requirements allow an additional 2 years beyond each of these compliance dates</i>	

Agricultural Water

- Production Water
 - Water used in contact with produce during growth
 - Irrigation, fertigation, foliar sprays, frost protection
- Postharvest Water
 - Water used during or after harvest

Subpart E – General Requirement:

“All agricultural water must be safe and of adequate sanitary quality for its intended use (§112.41)

Specifics in Produce Safety Rule

- Agricultural Water – Subpart E
 - §112.42(b) – You must adequately maintain all agricultural water distribution systems to the extent they are under your control as necessary and appropriate to prevent the water distribution system from being a source of contamination to covered produce, food contact surfaces, areas used for covered activities
 - §112.44 (b) – When ag water is used during growing activities for covered produce using a direct water application method, following criteria apply
 - A geometric mean of water samples of 126 or less colony forming units of generic E. coli per 100 mL of water
 - Statistical threshold value of ag water sample of 410 or less CFU of generic E. coli per 100 mL of water

Specifics in Produce Safety Rule

- Post Harvest Water – Subpart E
 - Post harvest water has the potential to spread contamination widely
 - §112.43 discusses water treatment requirements
 - Treatment method must be effective to make the water safe and of adequate sanitary quality for its intended use and/or meet the relevant microbial quality criteria
 - You must deliver the treatment in a manner to ensure that the treated water is consistently safe and of adequate sanitary quality for its intended use and/or meet the relevant microbial quality criteria
- §112.132 and 112.133 – Used water from washing and cooling produce must be properly disposed of so that it does not serve as a source of contamination to food contact surfaces and other areas used for covered activities (including production and packing areas)
- Waste water should be discharged away from production and packing areas, preferably down a drain or into a catch basin - GAPs

Hand Washing

- §112.130 (c)
 - You must provide for appropriate disposal of waste water associated with hand-washing facility and take appropriate measures to prevent waste from a hand-washing facility from contaminating
 - covered produce
 - food contact surfaces
 - areas used for covered activities
 - ag water sources
 - ag water distribution systems

FDA has not yet issued guidance about how a farm should avoid contamination of covered produce with waste water....just that it has to happen

Concerns with Ag Water Discharge

- FSMA Produce Safety rule
 - Microbial contamination
- Local, State and Federal
 - Sediments
 - BOD levels
 - Water treatment products
- Little to no Nitrogen is Vegetable wash/rinse water

Check Local and EPA regulations for water discharge

- What we know but where can it be found?
 - No discharge into a ditch because it could end up in waterways
 - Cannot go into a waterway directly
 - Cannot go into septic systems?
 - Discharge shouldn't exceed 1000gals per day
 - Levels of things like chlorine should not be over 800ppm
 - Discharge into vegetative strips or into a French drain that seeps into a vegetative area ok
- NYS Dept Ag and Markets AEM Information Sheet – Process Wash Water

Where do we go from here?

- State, local and EPA regulations need to be accessible to growers
 - And what are they
- Factsheets and other resources should be developed for ag water discharge
- We can make growers aware of them at grower trainings, newsletters and through other outreach activities and print materials