

FRUIT CONTACT WATER UNDER FSMA'S PROPOSED PRODUCE SAFETY RULE
 – WHAT'S NEW FOR FLORIDA CITRUS?

Michelle Danyluk
 2014 Packinghouse Day
 Fort Pierce, FL
 August 21st, 2014




PROPOSED PRODUCE SAFETY RULE



Agricultural Water:

Inspect entire water system “under your control” (source, distribution system, facilities and equipment).

Water that...

- Directly contacts product during/after harvest
- Used to make “agricultural tea”
- Used to clean food contact surfaces
- Used to wash hands

...no generic *E. coli* in 100 ml water

PROPOSED PRODUCE SAFETY RULE



Water that...

Directly contacts the harvested produce preharvest

- <235 *E. coli* in 100 ml (single sample)
- <126 *E. coli* in 100 ml (5 sample rolling geometric mean)

Geometric Mean of 5 Water Samples =

$$\frac{(N1)(N2)(N3)(N4)(N5)}{5}$$



GEOMETRIC VS. ARITHMETIC MEAN

<http://ncalculators.com/statistics/geometric-mean-calculator.htm>

<http://easycalculation.com/statistics/geometric-mean.php>

(just google “free geometric mean calculator”)

Or you can use Excel “=geomean(x,y,z...)”






PROPOSED PRODUCE SAFETY RULE

Water that...

Does not contact the harvested produce preharvest



- No Standards

PROPOSED PRODUCE SAFETY RULE

Agricultural Water Testing Frequency

- Everyone
 - Beginning of growing season and every three months
- Untreated surface water NOT subject to runoff
 - Monthly
- Untreated surface water subject to runoff
 - Every 7 days
- No testing if public source or treated water
 - Must have records (SOP) for treatment

RECORD KEEPING ASSOCIATED WITH WATER TESTING

- Growers will be required to keep records of water testing under the proposed rule including:
 - Water source/distribution inspection findings
 - Public (municipal) water source/system documentation (if used)
 - Water treatment method SOP/treatment monitoring results (if treating water)
 - Water testing results
 - Scientific data/information to supporting alternative (if used)



COMPLIANCE DATES

- FDA has proposed to extend compliance dates associated with water testing
 - beyond the effective dates for the rest of the proposed produce safety rule.
- The extended compliance dates depend upon the size of the farm



COMPLIANCE DATES

- **Six years** from the effective date of the final rule for very small farms (<\$250,000)
- **Five years** from the effective date of the final rule for small farms (<\$500,000)
- **Four years** from the effective date of the final rule for other farms.



UPDATE ON VARIANCE WORK

- Variance – Procedures, processes and practices to be followed under the variance are reasonably likely to ensure the produce is not adulterated and provides the same level of public health protection.
- This is why we've been looking at the die off of *E. coli* once applied to citrus crops.



Danyluk, Unpublished

SUMMARY

- New water standards are coming under FSMA
 - Final micro numbers and testing frequency unknown
 - Only for fruit contact water
 - Implementation dates 2019 at the earliest
- Work is ongoing to generate data for a Variance



QUESTIONS?

Michelle Danyluk
mddanyluk@ufl.edu
 863-956-8654

