

University of Arizona Cooperative Extension Helping Growers to Meet New FDA Food Safety Modernization Act Requirements

In January 2016, the Food and Drug Administration (FDA) released the Food Safety Modernization Act (FSMA) that includes the Produce Safety Rule, a rule directly related to food safety during growing, harvesting, packing and the holding of produce destined for human consumption. This new guidance is the first time science-based minimum standards have been applied to these aspects of food production across the United States. Under FSMA growers, packers and shippers are required to follow guidelines related to protecting public health through monitoring points along the production system that will maintain a clean and trackable food product. The Food Safety Modernization Act was designed to help the food production community maintain high standards in protecting the public from food borne outbreaks.

The University of Arizona Cooperative Extension has partnered with the FDA, the Arizona Department of Agriculture and the Produce Safety Alliance to provide trainings and education on compliance and understanding of FSMA. University outreach specialists have been certified in Preventative Controls (PC) as well as the Produce Safety Rule (PSR) and are currently working to provide trainings in both of these areas for growers, shippers and packers to understand and meet compliance standards across Arizona and California.

Preventative Controls training and compliance is similar to HACCP (Hazard and Analysis Control Plan) and includes detail on traceability, allergen labeling and safety procedure development. The Produce Safety Rule includes the management of agricultural water, soil amendments, sprouts, domesticated and wild animals, worker training, worker health, hygiene and the management of equipment, tools and buildings.

One aspect of FSMA and the PSR that is of special importance is agricultural water monitoring. The Produce Safety Rule requires growers to initially establish a Microbial Water Quality Profile (MWQP) for each agricultural untreated surface water source. Growers must also conduct annual surveys (water sampling) for that water source in subsequent years.

The water quality profile is based on the levels of generic *E. coli* bacteria in your agricultural water. An initial MWQP must be established with a minimum of 20 water samples collected as close to harvest as possible over a period of at least 2 to a maximum of 4 years. A Geometric Mean (GM) and Statistical Threshold Value (STV) are calculated from these 20 samples (minimum) and are used to create grower MWQP.

Based on stakeholder feedback, University of Arizona Cooperative Extension Specialists at the Maricopa Agricultural Center have developed the **Ag Water App** that can be used to easily create a growers MWQP and track water quality over time. These tools were developed to make it easy to calculate the GM and STV and to determine if water meets the standards for unrestricted application to produce before harvest. The tools were also designed to assist you with making food safety management decisions if your water does not meet the standards in the proposed rule including the number of days allowed for bacterial die-off as well as water

treatment options. The **Ag Water App** can be downloaded on both android and ios-devices for free and is currently available in English and is being translated into Spanish within the next year. There is also an online tool available from the UA that is Excel based and printable for easy report building to meet auditing requirements.

FSMA Produce Safety Rule Grower Tools

- Ag Water App - (University of Arizona Coop. Ext.) Download onto any Wi-Fi enabled mobile device (Android, Apple, cell-phone, tablet, laptop) by visiting the Google Play or Apple app store. Type “Ag Water” in the search box and click download. Lastly, open the app and create your account with a username and password. All information added to the app is saved in your encrypted personal account and can be accessed from any device that you login to.
- Ag Water App Webpage - <http://agwater.arizona.edu/> (University of Arizona Coop. Ext.) An online version of the app, accessible from any device connected to the internet and uses the same login information as the mobile app.
- Online Calculator - <http://agwater.arizona.edu/onlinecalc/> (University of Arizona Coop. Ext.) An online webpage accessible from any device connected to the internet. Data entered cannot be saved using the Online Calculator. Data can be printed for record keeping.

The University of Arizona (UA) understands the challenges growers face with meeting the complexities of the Food Safety Modernization Act that industry partners in Arizona, California and across the nation will need to comply with over the next three years. In order to aid in a smooth transition of compliance, UA Cooperative Extension will be providing Produce Safety Alliance FDA recognized training courses to help educate the grower community about Preventative Controls and the Produce Safety Rule needed to meet compliance.

Additional Resources:

More information on the Produce Safety Rule and agricultural water can be found at the following link: FSMA Final Rule on Produce Safety;
<https://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm334114.htm>

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