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Developing a Farm Food Safety Plan for Your Operation

The development of a farm food safety plan that is followed by all members of your administrative, growing, harvesting, packing and transportation teams is one of the most important "insurance policies" you can have for your produce operation.

The majority of fruits, vegetables, herbs and microgreens that are grown in conventional and hydroponic systems are consumed raw. Pathogens that cause foodborne illness can contaminate fresh produce items during growing, harvesting, packing or shipping activities. Once contaminated, pathogens are difficult to remove from produce surfaces without undergoing a processing or "kill step". Thus, efforts to reduce the risk of contamination in produce operations include developing produce safety policies, implementing good agricultural practices, and developing a farm food safety plan (FFSP).

What is a Farm Food Safety Plan?

Simply put, a FFSP is a detailed account of your operation's commitment and adherence to good agricultural practices (GAPs) and procedures for growing, harvesting, packing and/or shipping safe produce. A FFSP is a "living" document - one that is intended to change as your operation grows, adapts, and implements policies and practices that reflect your

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Figure 1. Providing safe produce is a priority for hydroponic and greenhouse operations. Image from Pixabay.

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ongoing commitment to produce safety.

Why develop a FFSP?

While FDA's Food Safety Modernization Act does not mandate the development of a FFSP, having a FFSP provides many benefits to your operation. At a minimum, the FFSP will help you assess on-farm risks and prioritize items to address in the short and long term. It aids in the development and organization of key records and influences decision making and how time and money are invested in your business. A FFSP is also required for obtaining GAPs certification through USDA or a third-party. GAPs certification often enables growers to sell their produce in "new", larger markets leading to enhanced income opportunities.

Getting started with a FFSP

One of the biggest hurdles for growers in developing a FFSP is getting started. There are many readily available FFSP templates online listed [here](#), or search for "farm food safety plan" to find a few others. Select a template that best fits your needs and modify it from there. The FFSP does not have to be complex - it just needs to accurately reflect and document your operation's produce safety policies and practices.

One key aspect of a FFSP is the development of standard operating procedures (SOPs). A SOP is simply a set of instructions to complete a given task. Why are SOPs important? Suppose there is an emergency situation and you are away from your operation for a period of time. Someone unfamiliar with the fine details of running your operation must keep things afloat while you are gone. If that person is given your FFSP complete with SOPs, monitoring logs, etc. would they be able to perform all the necessary tasks related to growing, harvesting, packing, and shipping your produce items until you return? Developing a SOP for tasks like handwashing, mixing fertilizer, or washing and sanitizing harvest containers ensures that every person asked to complete a task will complete the task exactly the same way each and every time. A few sample SOPs can be found [here](#).

The basic components of a FFSP include:

- 1. Operation Overview and Key Contacts.** Basic information about your operation is provided, including name, address, crops grown, farm or greenhouse description, etc. A produce safety officer should be designated to make decisions and speak with individuals about the operation’s commitment and practices related to produce safety.
- 2. Land Use Risk Assessment.** This section assesses present and past uses of your land or greenhouse, potential risks and routes of contamination from neighboring sites, businesses, or environmental features. A map of your operation is developed and key features highlighted.
- 3. Employee Health and Training.** Employee training on proper health and hygiene practices is essential to prevent produce contamination. Hand washing, proper toilet use, restroom cleaning and maintenance, proper clothing and attire, illness and injury reporting and procedures all contribute to providing a safe production and packing environment.



Figure 2. Proper handwashing is essential for reducing produce contamination. Growers can post handwashing signs in key areas to remind employees of proper handwashing techniques. Signage can be obtained in multiple languages. This sign is available from the University of Nebraska-Lincoln [here](#).

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4. *Agricultural and Postharvest Water.* Water used for production and postharvest purposes can readily transfer pathogens from humans, animals and the environment to produce. Properly inspecting irrigation systems, sampling water for pathogens, monitoring wash water, and implementing corrective actions can reduce risks associated with the use of water in your operation.

5. *Soil Amendments.* Obtaining, handling and storing soil amendments, especially those of animal origin, can pose contamination risks. The operation's procedures for obtaining and using animal manures or compost in field, high tunnel and hydroponic operations is addressed in this section.

6. *Managing Wildlife.* The monitoring, recording and management of domestic and wild animal (including rodents, birds, cats, and other animals of concern) activities during growing, harvesting and packing activities are detailed here.

7. *Equipment, Tools and Buildings.* This section addresses contamination issues from equipment, tools, buildings, and transportation vehicles. Proper cleaning and sanitization SOPs and records for food contact surfaces are included.

8. *Traceability.* An operation's traceability program involves the ability to track produce one step backward (when, where, how and by whom was it grown and harvested) and one step forward (how much product was taken where).

All of the different components that make up a FFSP are designed to help your operation proactively reducing produce safety risks now and in the future. For additional information on produce safety resources, including how to perform a risk assessment of your operation, develop a FFSP, or implement GAPs, please visit the Resources tab on Produce Safety Alliance website at: <https://producesafetyalliance.cornell.edu/resources/general-resource-listing>.