**Farm Food Safety Plans: Step by step**

Food safety plans have become part of the way of doing business in the food industry. Meat and poultry processors, seafood processors, and processors of fresh juice have had to have written food safety plans for around 20 years. Now, as a result of the Food Safety Modernization Act, most food processing businesses (depending on size of operation) must write and implement food safety plans.

**The Produce Safety Rule does not require a written food safety plan for compliance.** However, there are three reasons to consider putting your food safety policies and practices down on paper:

1. You and your employees will be more likely to follow your farm food safety policies and procedures in a standardized way if they are written down and can be referred to when needed.  Writing things down documents that you are making the effort to reduce your food safety risks should any customer, inspector or auditor ask about your food handling procedures.
2. The policies and procedures described in your plan can serve as a basis for any training you need to do.
3. Some customers may require a written plan, even if neither the Produce Safety Rule nor the Connecticut GAP or CGAP audit program requires one.

This food safety plan guidance is for a food safety plan that provides what you need to help you comply with the Rule.  It includes both suggestions for including written policies and procedures—and identifies what must be written/recorded to comply with the Rule.

Information regarding preparing a food safety plan that is more comprehensive and meets requirements of third-party audit programs, such as GlobalGAP or USDA Harmonized GAP, may be found on the Cornell University site [**here.**](https://gaps.cornell.edu/educational-materials/farm-food-safety-plan-template/)

A food safety template that addresses the Produce Safety Rule specifically (and may not be sufficient for a third party audit program), can be found [**here**](../../2020%20PSA%20courses/Produce%20Safety%20Course%20Resources%202020/Session%207/Plan%20Writing/CT%20Food%20Safety%20Template%2C%20modifiedPSA%2C%202017.docx).

**As you write your plan, refer to both the Rule and also the Produce Safety Rule Guidance Document created to help farms with compliance.**

Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption:

[**Rule**](https://www.fda.gov/food/food-safety-modernization-act-fsma/fsma-final-rule-produce-safety)

[**Draft Guidance for Industry**](https://www.fda.gov/regulatory-information/search-fda-guidance-documents/draft-guidance-industry-standards-growing-harvesting-packing-and-holding-produce-human-consumption)

**Before your write your plan**

1. **Assess the food safety related risks for your farm operation and your product**

Assess the food safety related risks specific to your farm operation:  use this **risk assessment check list:** [**WORD DOC.**](http://foodsafety.uconn.edu/Home_Page/foodsafetyplans_4_2550573989.docx)[**PDF**.](http://foodsafety.uconn.edu/Home_Page/foodsafetyplans_4_1397772276.pdf) Doing this will help you to focus on the risks that are of the highest priority in your operation. Every farm is different. You need to really think about your farm, your facilities, your practices and procedures, and, of course your products. Those growing lettuces and greens are going to have different risks than those growing winter squash. Those with an updated, new packing house are going to have different risks than those who have a packing facility with an outdoor slab and a roof (four sticks and a lid).

1. **Collect the following documents/information.**

**If you do not have them, then begin to develop/collect them as you begin this process.**

* Emergency contact information
* Copies of any training certificates (Produce Safety Alliance training is required if you must comply with the full Produce Safety Rule, or if you are participating in an audit program such as CGAP
* Pesticide applicator license
* Rental agreements you may have with portable toilet/hand sink providers
* Water testing results
* Map of your farm, identifying water sources, growing fields, animal operations, any neighboring sources of risk (animal operations, sewage treatment facilities, septic systems, etc.)
* Diagram of your packing facility
* Any record keeping forms you currently use
* Any written policies and/or procedures you have already implemented

**Write your plan**

Your plan should address the standards in the Rule and include any records required by the Rule. Keep in mind that a short description paragraph or a list of bullets are perfectly good ways to provide food safety plan information.  Keep it as simple as possible.  You might find it useful, once the plan is written, to include a table of contents for easy reference.

**Step 1.  Write down all of your farm food safety contact information**

* Farm name, address (business address), phone number
* Farm owner, name, address, phone number, email
* Farm food safety contact name, address, phone number, email (if different from owner)
* Emergency contact list

**Step 2.  Describe personnel qualifications and training**

Include a short paragraph describing who is trained, what training they receive. The Rule requires that employees receive training related to all safe food production, harvest, and post-harvest handling practices on the farm.

* **Record forms/records to include in your plan (required by the Rule)**

Training records:  include date, topic covered, name(s) of employee, signature/mark of employee; copies of PSA training certificate for food safety contact

**Step 3. Describe employee and visitor health/hygiene/food safety related policies**

Develop a written set of policies regarding employee health and hygiene.  As part of initial training, these policies should be reviewed with each employee and each employee should sign the policy to indicate that they understand all parts of the policy.

Have at least one first aid kit, and perhaps an additional one in the truck(s) going to fields. Identify in your plan where the first aid kits are. Schedule a review of the kits weekly, in order to be sure that anything that is used is replenished.

**Policies should include, but may not be limited to:**

1. **Worker health**

A policy regarding worker health, coming to work sick, or with an infection, symptoms of illness that would indicate the need to stay home, letting supervisors know of any symptoms of sickness or infection.

1. **Worker hygiene and food handling practices**

Policies should identify food safe practices such as wearing clean clothes, using toilet facilities, washing hands after using the toilet and before handling produce; policies regarding glove use, eating and smoking in growing, harvest and packing areas, removal of jewelry that could be a contamination risk. Inform workers of the availability of drinking water, the importance of practices that prevent cross contamination from animal facilities/domestic animals/pets. These policies are best written down and posted as a daily reminder.

If you have a CSA, and members conduct volunteer work on the farm—or if you are a community farm that includes volunteer workers—you should consider these workers to be “employees” and receive all training and follow all policies that employees do.

1. **Policies for visitors on the farm**

Include information regarding not visiting when sick, using restrooms and handwashing stations, avoiding contact with product, throwing all trash in trash cans, and other policies for your farm. All visitor policies should apply to PYO customers. Provide guidance for washing hands prior to picking produce and how to safely harvest product.

Perhaps you want all visitors (not including those visiting your farm store) to sign in as a way to keep track of who is on your farm property.

1. **Toilet and handwash facilities**

Include information regarding location of and management of toilet and handwashing facilities.  How often are they inspected, stocked with supplies, and cleaned?  What signage is used?

**Record forms/records you might want to include in your plan (not required by the Rule)**

* + Personnel health and hygiene policies, signed by employees to indicate they understand the policies
	+ Records of inspection/cleaning/stocking all toilet and hand wash facilities

**Step 4. Pre-harvest activities**

* + 1. **Production Water: Describe sources, inspection, testing, and management standard procedures**

The Rule is quite specific regarding agricultural water sources, testing and management. Production water includes surface (ponds, streams, rivers, cisterns), well and municipal sources.

* **Inspection**

First, the Rule requires that farms conduct an inspection of your ag water system *at least* yearly (at the beginning of the season and if there is any indication of problems at any time). Here is a [**video**](https://www.youtube.com/watch?v=94tqcqnKQo0&feature=youtu.be) that provides a summary of considerations during your water system inspection. An inspection will include review of your production ag water system from the source to last emitter/faucet/end of the line.  Don’t forget to consider:

* Surface water sources:  describe the source; indicate what kind of control you have over the source (or not). An inspection should address likelihood of contamination of the source:  how is land used around the source; are there animal facilities nearby that could impact the source; presence of wildlife; trash, debris near the source and water intake area
* Wells:  describe type of well. An inspection should address the condition of the well, well head, vent holes, screening/protection and the surrounding area with attention to access to the well; presence of trash, debris; animal facilities, etc.
* All water sources:  Inspect the integrity of the system (leaks, etc.), pressure sensors, check valves and other backflow protection devices; integrity of concrete pads, mixing equipment for pesticide application/fertigation equipment and any other facilities and equipment related to water distribution.

You will need to **document this inspection** and include it in your food safety plan.

* **Testing**
	+ Identify your water testing laboratory
	+ Identify how and when you are testing your water sources
	+ Identify any corrective actions you will take if there is a problem identified when

 testing your water.

**Record forms/records to include in your plan (required by the Rule)**

* + Water system inspection
	+ Water testing records
	+ Records of corrective actions should a problem occur, including the use of die-off calculations if tests are not meeting the standard, or considerations if an emitter breaks or drip tapes leak, resulting in a water source having to be considered as ag water

**Step 5.  Biological soil amendments of animal origin (BSAAOs):  Describe standard procedures Raw, composted on farm or purchased (Skip this if you do not use BSAAOs)**

Describe what kind of biological soil amendments you use, the source of those amendments, and how you manage the composting (if done on farm), storage and use of the BSAAO. Indicate how your production and/or management of BSAAOs meets the requirements of the Rule.

If you are purchasing composted product from a vendor, you must be obtain from that vendor a document or record indicating that the BSAAO has been treated in accordance with the standards of the Rule.

**Record forms/records to include in your plan (required by the Rule)**

If you are purchasing treated BSAAOs to use on covered crops:

* You must maintain at least annual documentation of the treatment process used by the supplier (i.e. a Certificate of Conformance), including processes used to manage and distribute the BSAAOs so that there is no risk of cross contamination with untreated product.
* Ifyou are treating BSAAOs on your own farm, keep records that the standards of the Rule are met to ensure sufficient process controls (time, temperature, turnings).
* If you are using non-treated BSAAOs as soil amendments, be sure to keep records of application, methods used, and management of the BSAAOs.

**Step 6.  Domestic and wild animals:  Identify food safety related procedures and describe how you monitor and manage**

There are no requirements for documentation of domestic animal or wildlife monitoring and management activities. However, it makes sense to write a description of any wildlife monitoring and management activities you are conducting on your farm.

Develop a written policy regarding management of domestic animals, separation of facilities from produce production, and practices in place to reduce risks of contamination by animals or their manure of produce production/ag water supplies. Employees who work with animals AND produce, should be aware of policies and procedures that minimize risk.

**Record forms/records that you might want to include in your plan (not required by the Rule)**

* Monitoring activities for wildlife contamination of covered product just prior to harvest.
* Corrective actions should animal intrusion (domestic or wildlife) occur in areas where covered product is grown.

**If you grow both covered and crops that are not covered (either because they are not commonly eaten raw or they destined for processing), indicate in a paragraph here how you either keep covered crops separate from crops that are not covered, during harvest and post-harvest activities OR if you have decided to treat all crops as if they are covered.**

**Harvest activities**

**Step 7:  Develop and describe harvest policies and standard procedures**

Describe how product is harvested. Include efforts to monitor fields for wildlife; to inspect harvest tools and bins prior to use; to use clean harvest tools and bins; to keep harvest bins off the ground; to use harvest knives/tools/equipment in a way that minimizes contamination by wildlife, soil, personnel; and to ensure that dropped produce is not harvested.

* **Cleaning and sanitation of tools and equipment**

Describe how you inspect, clean, and, if appropriate, sanitize your harvest equipment and tools.  Be sure to include bins, knives, gloves, and vehicles.

**Record forms/records to include in your plan (required by the Rule)**

The Rule requires that records be kept of harvest tool and equipment cleaning and sanitizing.  If sanitizing solutions are used, you must keep records of how the solution is mixed, applied and monitored.

**Post-harvest activities**

**Step 8.  Buildings and facilities**

Post-harvest buildings and facilities need to be constructed/organized/laid out so that they do not increase risks for contamination of covered product. Include a diagram of your packing area/facility. In addition, it might be useful to add a paragraph describing features of the facility including types of walls/wall finishes, floors/floor finishes, coolers, storage areas; air flow and fans; location of restrooms, hand sinks and major equipment.

* **Cleaning buildings and facilities**

It is important to keep your buildings and facilities clean and in order.

It would be useful to develop cleaning schedules for the facility and to keep records of cleaning activities. If sanitizers are used on non-food contact surfaces (i.e. on drains), be sure to keep records of the sanitizing chemicals used, how they are mixed, monitored and managed.

* **Pest control**

Include a paragraph describing your pest control program. At the very least include how you monitor for pests in your packing areas. This might include birds, mice/other rodents, insects**.**

If you do not have a problem, you are lucky. If you do have a problem—whether occasional or ongoing, include how you address the pest problem. If you manage the problem yourself or if you use a commercial Pest Control Officer (PCO), describe methods used.

* **Garbage management**

When garbage is not managed, risks are increased for rodents and other pests and also results in an environment that increases risk for the presence of microorganisms that impact safety of food products**.**

Include a policy/procedure for managing accumulation of refuse/garbage in the packing area; managing storage of garbage in dumpsters; regular removal of garbage from packing areas and dumpsters

* **Chemical management**

Include how chemical access is limited, who has access to chemicals, disposal of chemicals.

* + Make and keep updated a list of food grade and non-food grade chemicals used in your produce growing/harvest/packing activities. Keep chemical purchasing records.
	+ Keep a file of Safety Data Sheets.
	+ Develop standard operating procedures for use of all chemicals, including storage, mixing, testing

Chemical storage: It is important to keep non-food grade chemicals out of food handling and food storage areas.

* + Describe how/where you store food grade and non-food grade chemicals

Discharge of waste-water containing chemicals:  Be sure to learn and implement practices that adhere to any state or local regulations or best practices if you will be discharging large volumes of treated water.

**Record forms/records you might want to include (not required for the Rule)**

* Building and facility cleaning and sanitizing activities
* Pest control activities
* A list of chemicals stored on the premises/SDS sheets

**Step 9.  Describe policies and practices used as product is brought into the packing area from the field**

Consider including:

* + How product is transported from the field
	+ How product is brought into the packing area using methods that minimize contamination from wildlife, field soil and debris
	+ Where product is stored prior to packing
	+ If product is washed, what is the procedure (see Post-Harvest water)
	+ How product is packed
	+ Address what is done with dropped product
	+ How is product stored after packing
	+ Distribution of product

**Step 10. Post-harvest water:  describe sources, inspection, testing, and management standard procedures**

Agricultural water includes water used in post-harvest activities. Water used to wash/sanitize covered product or to wash product contact surfaces must meet the standard of no detectable generic *E. coli* in 100 mL of water.

* **Inspection**

The Rule requires that farms conduct an inspection of your post-harvest ag water system (just as it requires inspection of production ag water systems) *at least* yearly (at the beginning of the season and if there is any indication of problems at any time). If water sources used in post-harvest activities are different than those used in production activities (you use a different well or you use municipal water in post-harvest activities only), then be sure to inspect the water source (as described in the production ag section). Inspect the post-harvest water distribution system to include testing and the use of back flow prevention devices.

* **If you are treating the water used to wash product**

There is no requirement to wash produce in the Produce Rule. In fact, if you can avoid adding water to a product, it may decrease risk for spreading contamination and/or risking spoilage.

However, some products may need washing, particularly after a heavy rain.  Or, some customers may require that product be washed.

There is also no requirement to use sanitizer in the wash water. However, it will minimize the risk of cross contamination due to presence of pathogens in the water.

Include an outline of policies and procedures regarding how product is washed. Include source of water, procedures for adding sanitizer to water, including type of sanitizer, documentation of EPA labeling, concentration used when mixing, how water is monitored for turbidity and/or sanitizer concentration, and corrective actions if a problem occurs.

If you determine during your risk assessment that your product is subject to infiltration, you may need to monitor wash water temperatures as well.  Some sanitizers may also work best at certain temperature ranges. Any of these temperature measurements should be included in post-harvest water policies and procedures.

**Record forms/records to include in your plan (required by Rule)**

* Water system inspection (post-harvest ag water)
* Well water test records or municipal water source test documentation

(If your health department requires a well water test for potability for a non-ag use of water (i.e., you have a retail business on the farm), you can use these tests as documentation—no need to get another type of test.)

* Records associated with wash water that document use of sanitizers, type and concentration of sanitizers, monitoring of wash water temperature, turbidity and sanitizer concentration as appropriate to your procedures and, finally, corrective actions taken if something goes wrong.

**Step 11.  Cleaning and sanitation:  tools and equipment**

The FDA Guidance document for the Rule states that farms should do the following. Including these procedures in your food safety plan would make sense as well.

* Identify equipment and tools on your farm that will or may contact covered produce, including thermometers, pH meters, and other monitoring equipment.
* Explain how you ensure that the equipment and tools you use will not increase the risk of contamination of covered product (i.e. tables are constructed of stainless steel or you are replacing wood bins with plastic as they are more cleanable).
* How is equipment/tools stored to minimize risk for contamination?
* Describe procedures and schedules for inspecting, cleaning, and, when necessary and appropriate, sanitizing, food contact surfaces of these equipment and tools.
* Be sure to include carts, forklifts and other transportation equipment.

**Record forms/records to include in your plan (required by the Rule)**

* Cleaning and sanitizing records for all equipment and tools that come into (or may come into) contact with covered product. Include date/time of cleaning/sanitizing activities; if the tools/equipment were sanitized and/or cleaned; cleaning procedures; sanitizing procedures.

One suggestion is to write a standard operating procedure (SOP) for each tool (or set of tools, if they are cleaned/sanitized the same way) and piece of equipment. Simply site this SOP on the record as the procedure used.

**Step 12.  Packaging**

Describe types of packaging used and how packaging is stored to reduce risk for contamination. Keep packaging purchasing records.

**Final step.**  **Review and update your plan at least annually, date and initial.**