Jumpstart to Farm Food Safety for Small and **Medium-Sized farms** Farming is hard work. We help with the food safety parts.



Jumpstart to Farm Food Safety with Extension

Meet Your Team: ➤ Robson Machado ➤ Jason Bolton ➤ Mary Choate **Contact the Team in Maine or New Hampshire**



"This work is supported by Food Safety Outreach Program grant no. 2021-70020-35647 from the USDA National Institute of Food and Agriculture."

Three-year grant from September 2021- August 2024

Open to 10 farms each in NH and ME each year of the grant

Goal: complete all or part of their food safety plan

Jumpstart to Farm Food Safety Webinars

Introductory Webinar (March 1, 2022)

The Jumpstart to Farm Food Safety Team explains the program and how to sign up for a visit.

VIDEO: Jumpstart to Farm Food Safety Introduction Webinar - March 1, 2022 (YouTube)

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Farming is HARD WORK. We can help with Food Safety parts.



Watch on 🕒 YouTube

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AGRICULTURE

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Jumpstart to Farm Food Safety



NIFA Grant 2021-70020-35647

Jumpstart to Farm Food Safety with Extension

Welcome to Jumpstart to Farm Food Safety with Extension!

Interested in writing your farm food safety plan but don't know where to start? We can help!

University of Maine Cooperative Extension and the University of New Hampshire have partnered on a threeyear grant to assist fruit and vegetable farmers in Maine and New Hampshire with farm food safety planning. The project will fund an Extension educator, trained in Produce Safety, to work with you individually on your farm food safety plan.

About Us

Farm Food Safety

We can provide assistance with

- starting or continuing work on your farm food safety plan
- suggestions on designing a safer and more efficient wash/pack area
- writing, reviewing, or improving SOPs (Standard Operating Procedures)
- staff training in health and hygiene
- drawing a farm map or irrigation map
- other farm food safety concerns you may have

Whatever you need to improve food safety on your farm.

If you choose, we will visit your farm to help you to assess the food safety risks and how to decrease or eliminate them if possible.

Here are some **resources** to get you started.

Apply for the Project!

Click on the button for your state below to sign up.

Participation is limited and is on a firstcome-first-served basis, as well as farm size (small to medium-sized farms, not fully covered by FSMA, will be given preference).





Resources

Quicklinks

Cooperative Extension: Food & Health

Home **Food Preservation** Food Safety Nutrition Education

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Meet the Team





NIFA Grant 2021-70020-35647



Staff Health and Training

Resources



Wildlife and Domestic Animals



Soil Safety



Water Safety and Testing



Post-harvest Sanitation



Documents

We will reach out to you to set up a time to visit in person, or we can meet on the phone or by email, but an in-person visit conveys the most complete farm food safety overview.



Why Put Together A Farm Food Safety Plan (FFSP) ?

- 1. It helps you manage the food safety risks you identify on your farm.
- Improves the quality and shelf-life of your produce
 Improves produce handling efficiency by clearly defining your practices, policies, and SOPs.
 Makes a third-party audit quicker and easier.
 Helps if there is an outbreak or a recall.

- Next, we'll get to work to assist with a plan to move forward.
- We'll share resources and technical expertise.
- You'll implement the food safety changes you've chosen.



Once the changes are in place, we will document them, and you will provide feedback on them.

Are the changes working well?

Do they need more tweaking?



Participants will receive a farm food safety tool to assist them with their project









Share your success!

Additional Farm Food Safety Incentives available for participants who allow us to document their success and feedback to share.



Activity

We review farm practices and procedures regarding:

Worker Health and Hygiene

Agricultural Water

Ag Chemicals (Sanitizers and Ag pesticides)

Animals and Pest control

Soil Amendments

Field Harvesting

Transportation (Field to Packinghouse)

Packinghouse Activities

Final Product Transport

Documentation

Activity

Report from visit on: April 29, 2022 Farm name: xxxxxx Farm Town county: Manchester, Hillsborough Food safety manager: xxxxx Farmer UNH Extension Specialist: Mary Saucier Choate

At our visit, we reviewed your practices and procedures regarding:

- Worker Health and Hygiene
- Agricultural Water
- Ag Chemicals (Sanitizer and Ag pesticides)
- Animals and Pest control
- Soil amendments
- Field Harvesting
- Transportation (Field to Packinghouse)
- Packinghouse Activities
- Final Product Transport
- Documentation

Based on our visit and your comments, the top food safety areas I recommend focusing on to start are:

- Ag Chemicals (Sanitizer and Ag pesticides) Recommend looking for appropriate cleaner and sanitizer
- Packinghouse Activities Consider recommendations for hand wash sink sanitation and for dunk tank positioning and water temo.
- Field Harvesting Consider raising bin off ground during harvest
- Your Farm Description, which is a general overview of your farm. You can find a blog about
 how to write them <u>here</u>. I believe I left you with a highlighted Farm Description template with
 "cues" on what to write in each section, and a blank template. Let me know if I should resend
 these.

Worker Health and Hygiene

You are the only farmworker, and you have a friend who does mechanical work.

You have toilet facilities in your garage, above the wash pack area.

Your leech field slopes towards the woods. It is not near food crops.

You do not eat in the fields

You have a policy for managing food and food contact surfaces that have been in contact with bodily fluids.

You use disposable gloves for wash pack work and no gloves for harvesting. Gloves are not required under FSMA, but if they are used, they need to be properly managed: single-use gloves are disposed of when torn or solied or if using reusable gardening gloves, cleaned regularly.

Documentation recommended: If you hire more employees, you may consider written SOPs for training purposes, including your illness policy.

Agricultural Water

You irrigate from a drilled well with a filter for minerals and sediment. You have it tested every year by Capitol Well. You have a backflow valve installed at the drip irrigation connection.

The wellhead looks well maintained. Be sure the flowers/growth around it doesn't prevent you from inspecting its condition.

For post-harvest water (potable) for example for drinking, cleaning hands, and washing produce, the criteria for Generic E. colicolony-forming units (CFUs) per 100 mL of the water sample must be Zero or "not present" Your latest report from Capitol Well indicated in on detected.

Documentation recommended: Water test results. Document inspection of wellhead and backflow preventers at least once a year.

Ag Chemicals (Sanitizer and Ag pesticides)

You have a General Use pesticide license. You store pesticides in a separate bin and the detergent and sanitizer above the washing station.

The detergent or soap you use for cleaning can be any food-grade dish soap. Preferably free of PFAS (forever chemicals). You can use this tool to find them: www.epa.gov/saferchoice/products

The detergent cleaner you use is either Simple Green or dish detergent. Both dish detergent and Simple Green require a rinse or damp cloth wipe after use.

Crystal Simple Green Industrial Cleaner & Degreaser is the version specifically labeled for use in commercial kitchens, food processing plants, and food prep areas.

For sanitizing after cleaning and rinsing, you are using CLOROX Disinfecting Bleach 7.5% sodium hypochlorite.

Here is a helpful <u>Sanitizers are Pesticides</u> information sheet. Best practices (legally required): The sanitizer you use must be specifically labeled for flood contact use and have an EPA registration number. You must follow the directions on the label exactly, using measuring cups and spoons as instructed. You can find sanitizers such as bleach at big box stores or even the grocery store.



You may consider using Food Grade Food Service active or free chlorine test strips (NOT total chlorine), or test strips appropriate for the kind of sanitizer you are using, to make sure it is effective as prepared.

Documentation recommended: SOPs for cleaner and sanitizer use.

Animals and Pest control You use electric fencing to keep deer and domestic animals out of crop fields.

You use snap trap mouse traps in the wash pack station.

You change footwear between farm field activities and chicken care. Documentation recommended: These are best practices.

Soil amendments

You use vegetarian and chicken manure-based fertilizers and follow NOP guidelines for use. Documentation recommended: Following NOP documentation.

Field Harvesting

We discussed using a "sacrificial" upside-down bin to put your harvest bin on to keep it off the ground. You can use something else to keep the bin from directly touching the dirt. The goal is to keep as much dirt out of the wash pack area as possible.

Documentation recommended: Consider adding this to SOP.

Transportation (Field to Packinghouse) You use the Ranger dump bed for transporting vegetables from the field to the wash station. You clean it before harvesting- once a week as needed. Documentation recommended: This is best practice.

Packinghouse Activities

The flow of food from the field to wash and pack area goes from dirty to clean as recommended. Clean totes are stored upside down on pallets and kept clean.

You use a dunk tank and keep an eye on sediment as a cue to change the water. We discussed the potential for infiltration when produce is warmer than dunk tank water.

You are considering temping the water and the produce to be sure the difference in temperature is less than 10°F (if water is too cold, water and any contaminants in it will preferentially seek the interior of the warmer produce.)

The dunk tank used in summer is in the area where the chickens are in the winter. You rake this area out so that no chicken manure is left behind to contaminate produce handled in this area.

The dunk take is situated on pallets to raise it off the ground. Any produce bins should also be raised off the ground either on pallets, an upside-down bin, or other measure.

You have a policy on cleaning totes and harvest tools (serrated knife and clippers)

You are considering a deep clean of your wash pack area at the beginning of the season.

Your handwashing sink in the wash pack area is the same as the produce washing sink. FSMA § 112.130 Requires that you take appropriate measures to prevent wastewater from a hand-washing facility from contaminating covered produce, food contact surfaces, areas used for a covered activity, agricultural water sources, and agricultural water distribution systems with known or reasonably foreseeable hazards.

Documentation recommended:

Consider cleaning and sanitizing the sink after handwashing and before using it for produce or think about adding a standalone handwashing station. The Jumpstart resources page: <u>Health and Hygiene/Worker Training</u> has a link to plans for a simple <u>DIV handwash station</u>.

Final Product Transport

You use a well-organized root cellar for storage. Produce goes either to cleaned and sanitized CSA totes, restaurant account bagged and in totes, or into bins in the root cellar.

Documentation recommended: These are best practices. If you have more employees, consider SOPs for packaging/storing produce.

Year One Results in NH

- 10 farms signed up and had an on-site visit
- Followed by a written review of current operations and
- Recommendations for food safety changes or tweaks

Year One Results in NH Six farms have had a second visit to review ongoing food safety modifications.



Year One Results in NH

Two farms had their first visit in September, so a follow-up visit/call will be scheduled in a few months

umb	Vorker H&H	Ag Water	Ag Chemicals	Animals and Pest	Soil	Field Harvesting		Pack house Activities	Final	Documentation	Notes	
			-	control	amendments		tion (Field to		Product Transpor			
	Planning H&H SOP.	Planning regular well water	Changed to food contact safe	Trained dogs not to go into crop fields.								
2	1	4	1	3	3	3	3	1	3	3		
	Added signage to wash hands	Ann. Vell water test. Viping tomatoes with clean cloth- not	Changed to food contact safe sanitizer					new outdoor wash pack w/ good flow				
\$ 3	2	3	3	4	4	3	3	3	3	3	working on GAP no 2nd	
# 4	3	4	1	4.1	4	1	4	1	4	1	110 2110	
		-	Using correct ratio of food contact sanitzer	elec fencing, rodent snap traps. Added crocs at entrance to wash area to prevent	-	Solid bottom Harvest bins immediately emptied after harvest and set in the "dirty" bin area to be cleaned.		Sun. nights, all surface areas cleaned, floor squeegeed. Clean break 1 z month: clean & san. all surfaces.		Created C&S SOP and workstation checklist	water temp infiltration Adding a w	
# 5	4,2	4	2	4	4	4	4	4	4	4		
	4 H&H training in place 2 needs designated handwash sink 4 handling posters in wash area.	Ann. Vell water test.	working on change to a food safe sanitizer	Animals not allowed in wash area								
# 6		2	2	4	nła	1	2	1	4	3		
	added DIY handwash station near logs!	planning well water test. Considering river water test	working on change to a food safe sanitizer	covers logs to prevent rodent/ slug damage		uses gloves to harvest		cleans and san. tools and surfaces				
ŧ7	4	4,3	4.3	4	4	3	4	3	4	3	no 2nd	
		Ann. well water test.Considering irrigation pond	Have gen use pest. License. Discussed food contact	Rodents traps as needed				Using water only- discussed C&S				
		4,3	1,3	3	3	1	2	1, 2	4	3		
	4 started w/covid policy 2 need handwash policy 1 added DIY handwash station	using tested municipal water for some irrgation. Using collected	Using EPA appr. Clean and san wipes on surfaces. Not cleaning totes (repurposed fan	some animal intrusion. Traps used.	manure stored behind rock barrier. Yeg compost also use, stored near	tools were cleaned with water only. Now they use san. wipes		1 added covering on packaging containers, 2 Need a cleanable pack table				
\$ 9	3,4,2	3	3	4	4	4	4	3	4		no 2nd	
	policy 4 Several convenient toilet facilities- 2 some only have hand sanitizer	Aware of need for well water test	Aware of need for food contact surface san	fully surrounded by fencing		Tools are cleaned with soap and water		Cover for area would be good. Dunk tubs changed when visually dirty. No sanitizer in water.Considering a converted washer for greens				
# 10	4.3	4 2	3	nła	nła	2	4	2	4		no 2nd	
	place 3 need H&H policy	4 test well water annually. 2 working on recycled water	aware of need for food safe sanitizer for cleaning/san			gloves worn during harvest. Need handwash policy			cooler van used for transpor		visit qet	

Three farms changed to a sanitizer that was safe for food contact surfaces.

Two farms are working on changing their sanitizer.

All ten farms are aware of what a food-safe sanitizer is and how to use it appropriately

DIRECTIONS FOR USE: It is a violation of Federal law to use this product in a manner inconsistent with its labeling. DO NOT use this product full strength for cleaning surfaces. Always dilute strictly in accordance with the directions. For prolonged use, wear gloves.

FOR GENERAL DISINFECTING	Product	Water	Instructions
Floors, Walls, Vinyl, Glazed Tile, Bathtubs,	1/3 Cup (2.7 fl. oz.)	3/4 Gallon†	Prewash surface, mop or wipe with bleach solution.
Shower, Sinks	1/3 Cup (2.7 fl. oz.) 2/3 Cup (5.4 fl. oz.)	1 Gallon‡ 1 Gallon\$	Allow solution to contact surface for at least 6 minutes. Rinse well and air dry. For Canine Parvovirus, contact time is 10 minutes.
waict DOMI	1/3 Cup (2.7 fl. oz.)	Toilet Bowl	Flush toilet. Pour this product into bowl. Brush bowl.
1770			menting sure to get under one mit and

FOR SANITIZING FOR	D CONTRACT	-	stand for 6 minutes and flush again.	Bars
FOR SANITIZING FOU Food-Contact Work Surfaces Refrigerators th &	z isp. (1/3 11.02.)	1 Gallon	Wash, rinse, wipe surface area with bleach source and for at least 2 minutes. Let air dry.	
Dishes Ober	2 tsp. (1/3 fl. oz.)		Remove food. Wash, rinse, wipe surface area with con bleach solution for at least 2 minutes. Let air dy sha	
Plastic Dutting D	2 tsp. [1/3 fl. oz.]	1 Gallon	Wash and rinse. After washing, soak for at each protection of an and air dry immediately and and air dry	日日日
FOR DEODORIZING	2 tsp. (1/3 fl. oz.)	1 Gallon	Wash and rinse. Soak for 2 minutes in bleach for beach solution, let air dry.	100



One farm wrote a cleaning & sanitizing SOP

50P for Cleaning and Sanitizing Harvest Bins, Washing Containers, and Tools

Purpose:

This procedure describes the cleaning and sanitizing of harvest bins, washing containers, and tools.

Scope:

This procedure applies to all farm employees and visitors who are helping with harvest processing tasks.

Responsiblity:

It is the responsibility of anyone on the farm who will harvest produce.

Materials:

- Harvest bins
- Harvest knives
- pruners/snips
- Washing totes
- Large dunk tank
- Sink
- Hose sprayer
- Scrub brush
- Diluted bleach
- Paper towel
- IPhone timer
- Large squeegee

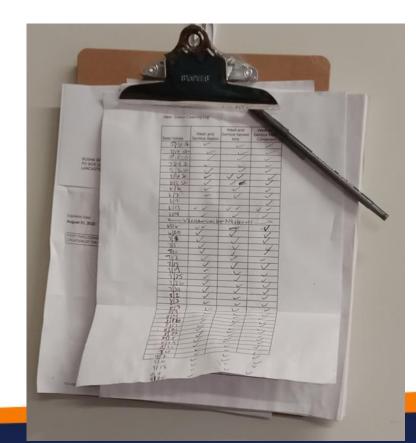
Procedure:

These tasks should be performed at the end of the day, or if the harvest bins are dirty, or between harvesting different items/different beds to prevent contamination.

- 1) Rinse all harvest bins and containers with water using the hose sprayer at the sink.
- 2) Place 1/2 tsp dish soap on scrub brush and wet.
- 3) Using scrub brush, clean off inside and outside of bins and containers.
- 4) Rinse thoroughly with water.
- 5) Rinse harvest knives or pruners/snips next and scrub with brush. Rinse with water.
- 6) Dry with paper towel and open snips/pruners to allow to fully dry.
- 7) Spray bins, tools, and containers with diluted bleach and allow it to air dry.
- 8) Stack bins on shelves.
- Stack containers under sink.
- 10) Using large floor squeegee, push water out of the garage.

Year One Results in NH Cleaning and Sanitizing And created a checklist, posted at the workstation

Wash Station	Cleaning Log		
			Wash and
Date/ Initials	Wash and Sanitize Station	Wash and Sanitize harvest bins	Wash and Sanitize Wash Containers



Year One Results in NH Employee Health and Hygiene

Three farms installed/installing DIY handwash stations



Three farms made changes to improve the dirty-to-clean flow



One farm bought a digital thermometer to monitor dunk tank water temperature





One farm covered up their packing containers to keep them clean



To prevent contamination of the wash pack room, one farm added crocs at the entrance for changing into after working with the chickens.

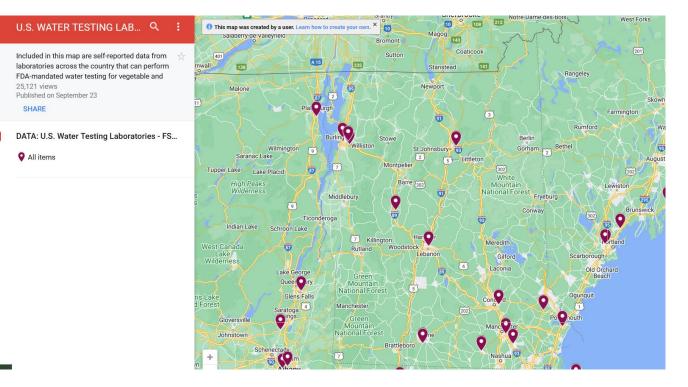


Year One Results in NH

Six farms were already testing their irrigation well water annually.

Four farms were planning testing of irrigation surface water

Water



Final Deliverables

Create and share resources that farms can use to assess their farm food safety planning needs.

Extension

created

resources

Worker Training Record [Farm name and address]		[Add your farm logo here or delete this textbox]			
Topics covered (mark with an "X" on the gray left column Principles of food hygiene and food safety	n):	Proper storage and use of manure or compost			
Foodborne illness symptoms and illness policy		Agricultural water sampling			
Proper handwashing technique	_	Water distribution system assessment			
Recognizing produce that cannot be harvested		How to prepare sanitizer			
Recognizing signs of field animal intrusion		How to clean and sanitize food contact surfaces			
Animal and animal waste handling		Clothing & Footwear management			
Break area policy		Pest management in produce handling areas			
Pesticide (including sanitizer) storage		Produce transportation (field to wash-pack)			
Toilet facility (use, cleaning, maintenance)		Produce transportation (to market or buyer)			
Inspecting harvest containers and equipment for cr	tamination risk				
Correcting or reporting problems with harvest containers or equipment					
Other:					
Other:					
Other: Other:					

* You might not have to train your workers in all these items. Pick the ones that apply to your farm and the workers' duties.

Training tools, materials, or techniques (Whenever possible, please attach any printed materials related to the training. Also reference any relevant SOPs or sections of the farm food safety plan that apply):

A.50	As therefore any relevant sors of sections of the farm food safety plan that approp.					
	Oral communication		Handwashing demonstration			
	Videos (e.g., DVD or YouTube)		Harvesting container cleaning demonstration			
	Text material (e.g., pamphlet or factsheet)		Sanitizer preparation demonstration			
	Other visual aids (e.g., flip-chart, poster, PowerPoint)		Transport vehicle preparation demonstration			
	Bin handling in field demo (e.g., use of sacrificial tote)		Animal intrusion mark-off demonstration			
	Wash pack Zone 1 (direct food contact surface) cleaning and sanitizing demonstration (e.g., table tops, conveyors)					
	Other:					
	Other:					

Trainer:	Training date/time: / /			
Employee name (please print)	Employee signature			
1				
	Review date/time://			
Created with support from NIFA Grant 2021-7002				



Farm Description Template

[Your own Farm Description can be as simple or complicated, depending on the size and complexity of your farm business, it may contain additional details about contractors and animals/crops/other uses of adjacent land.]

NOTE: 1. [Use the fields that apply to your farm, remove the ones that don't] 2. [You should remove the instructions inside brackets and highlighted yellow after filling the form]

Farm Name: Farm Address:

[Short description of your farm, year you or your family started the farm and or how long the land has been a farm]

[A farm mission statement (if you have one)]

Farm Owner: [Name and phone. E.g.: Jane Farmer (555) XXX-XXXX]

Farm Manager: [Name and phone. E.g.: Joe Grower (555) XXX-XXXX]

Food Safety Supervisor: [Name and phone. E.g.: Jack Cleaner (555) XXX-XXXX]

Other Supervisors: [Name and phone of other supervisors you might have]

Other contact information for key personnel: [Name, address or other relevant information for key personnel mention above or not. E.g.: is it relevant to provide someone's address as an emergency contact close to the farm in case they don't pick up the phone?] Chemical Supplier: [Company name, contact name and phone. E.g.: Ag Supply LLC

(555) XXX-XXXX]

Pesticide Supplier: [Company name, contact name and phone. E.g.: IQ Bugs LLC (555) XXX-XXXX]

Port-a-Potty Supplier: [Company name, contact name and phone. E.g.: Pup House LLC (555) XXX-XXXX] Contact information for contracted services: [Company name, contact name and phone for any other services that are relevant.]

Attorney: [Firm name, contact name and phone. E.g.: Saul Goodman Esq. (555) XXX-XXXX

Other suppliers and buyers: [Company name, contact name and phone for any other suppliers that are relevant.]

Previous land use: [What has the property/land has been used for in the past:]

Crop(s)/Livestock grown on the property: [acres owned, leased, contracted, or consigned for each crop] [Acres not in production:]

Structures on the farm: [List and describe physical buildings operated in conjunction with this farm's operations, such as packing house square footage;]

Description of adjacent properties: [List and describe adjacent properties. E.g., All surrounding properties are residential, single-family houses. OR <u>All</u> surrounding properties are farms, one being a produce farm and another a dairy farm. OR South or our farm there is a junk yard and east there is a papermill that shares our main water source.]

Farm map: [Farm maps (attach if available). Ideally on a separate page as large as you can make it in a single page]

[To view a simple farm description: https://extension.unh.edu/blog/2021/11/writing-farm-description-your-farm-food-safetyplan]

This work is supported by Food Safety Outreach Program grant no. 2021-70020-35647 from the USDA National Institute of Food and Agriculture.

Final Deliverables

Brief videos, SOPs, checklists, and additional farm food safety resources highlighting best practice examples from growers.

For More Information

Jumpstart to Farm Food Safety: https://bit.ly/jumpstartfarm

UNH Extension Farm Food Safety Team for questions, resources, and technical assistance:

mary.choate@unh.edu 603-787-6944 wendy.johnecheck@unh.edu 603-389-6453

UMaine Extension Robson Machado robson.machado@maine.edu 207-581-314434

WHAT **QUESTIONS?**

THANK YOU!