

UMass Vegetable Winter School

Food Safety Planning

Lisa McKeag

UMass Extension Vegetable Program

&
the MDAR Produce Safety
Team



Agenda

- Intro to Food Safety planning
- Water: assessing risks and making a distribution map
- Standard Operating Procedures
- Other parts of a food safety plan – next steps

Public health...

The New York Times
Do Not Eat Romaine Lettuce,
Health Officials Warn



Regulations...

FDA FOOD SAFETY MODERNIZATION ACT

Market access...

Audit programs...



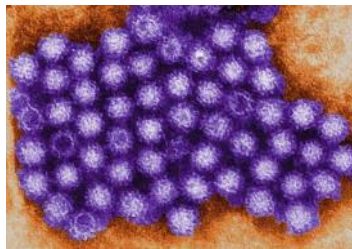
Stop&Shop®

Farm Food Safety

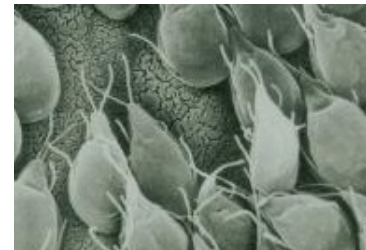
- Foodborne illnesses result from contamination of food with **fecal pathogens**



Bacteria



Viruses



Parasites

- **“Keep the poop off the food”**

- All about risk management...



Good Agricultural Practices(GAPs)

Practices that minimize the occurrence of microbial contamination of fruits and vegetables



Worker health & hygiene



Livestock & wildlife



Water quality



Storage, transportation, and traceability



Manure & compost



Field & packing house sanitation

Farm Food Safety Plans

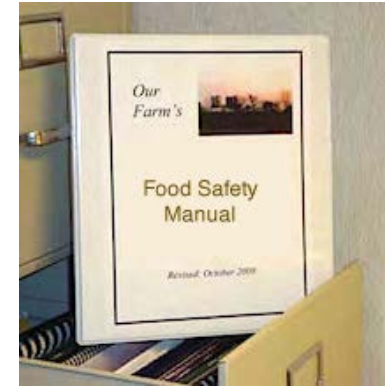
- The FSMA Produce Safety Rule does not require a written Farm Food Safety Plan
 - However, writing a Farm Food Safety Plan:
 1. Helps you get organized and effectively **manage risks**
 2. Helps with training
 3. Identifies areas for improvement or capital investments
 4. May be required by 3rd-party audit programs
- Required for Commonwealth Quality certification





Farm Food Safety Plan Parts

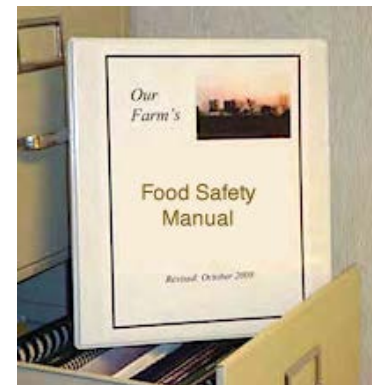
- Farm name and address
- Farm description
 - Commodities grown, farm size, etc.
- Name and contact information for the farm food safety manager
- Risk assessment of practices and environmental conditions on your farm that impact food safety
- Practices to reduce food safety risks
- Records that document practices





Farm Food Safety Plan Parts

- Farm name and address
- Farm description
 - Commodities grown, farm size, etc.
- Name and contact information for the farm food safety manager
- Risk assessment of practices and environmental conditions on your farm that impact food safety
- Practices to reduce food safety risks
- Records that document practices



MDAR Produce Safety/mGAPs Registration Form v2.1

Massachusetts Department of Agricultural Resources' Produce Safety Program

1. Agricultural Operation Information

Operation Name	<input type="text"/>		
Point of Contact First, Last Name	<input type="text"/>		
Role	<input type="text"/>	Email	<input type="text"/>
Operation Phone	<input type="text"/>	Cell Phone	<input type="text"/>
Legal Structure:	<input type="checkbox"/> Sole Proprietor <input type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> LLC <input type="checkbox"/> Other _____		
Site Address:	<input type="text"/>		
City, State, Zip:	<input type="text"/>		
<input type="checkbox"/> Mailing address same as above			
Mailing Address	<input type="text"/>		
City, State, Zip	<input type="text"/>		
Region	<input type="checkbox"/> West <input type="checkbox"/> Central West <input type="checkbox"/> Central East <input type="checkbox"/> Northeast <input type="checkbox"/> Southeast		
Have you participated in a PSA Grower training course?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Has your farm had a third party audit?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
If yes, who conducted your third party audit?	<input type="text"/>		



Other Items to Include In Your Farm Food Safety Plan

- Farm maps
- Farm policies
- SOPs
- Training records
- Agricultural water test results
- Emergency contact information
- Supplier and buyer information
- Traceability and recall plans
- Contact info for contracted services

Sample Illness/Injury Reporting Log

Please use the first white area for general mandatory reporting procedures. Action taken see notes, treatment, tests to hospital, etc.

Date	Name of employee	Incident/Injury reported	Illness/Injury reported	Did employee return to work (Yes or No)	Notes
12/01/12	John Doe	Cut finger while handling produce.	Checked wound, applied antibiotic ointment & bandage and sent to hospital for stitches.	Yes	(x20)

Reviewed by: _____
Customer Order # _____
E.A. Smith

Sample SOP: On-Farm Hand Washing

Revision: 1.0
Date: 12/14/12

1—Purpose
Describes the correct method for hand washing while working or visiting the farm.

2—Scope
Applies to all farm personnel including farm owners, workers, and farm visitors.

3—Responsibility
Everyone on the farm should understand and practice proper hand washing, regardless of their job or activities on the farm.

4—Materials

- Sink
- Water
- Soap
- Single-use paper towels
- Trash can (preferably with a lid)

5—Procedure
Procedure to be completed before the beginning of work, after each break, after eating or smoking after using the toilet, at the end of the day and at any other time hands become dirty.

1. Wet hands with water.
2. Apply soap and lather. Be sure to wash the front and backs of hands as well as in between the fingers. Rub hands together for AT LEAST 20 seconds.
3. Rinse hands thoroughly.
4. Dry with a paper towel (and turn off faucet with used paper towel).
5. Throw the paper towel in the trash can.



Other Items to Include In Your Farm Food Safety Plan

- Farm maps
- Farm policies
- SOPs
- Training records
- Agricultural water test results
- Emergency contact information
- Supplier and buyer information
- Traceability and recall plans
- Contact info for contracted services

Date	Name of Employee	Incident/Injury Reported	Action taken (see notes, hospital, see to hospital, etc.)	Out employee return to work (date or day)	Notes

Sample SOP: On-Farm Hand Washing

Revision: 1.0
Date: 12/14/12

1—Purpose
Describes the correct method for hand washing while working or visiting the farm.

2—Scope
Applies to all farm personnel including farm owners, workers, and farm visitors.

3—Responsibility
Everyone on the farm should understand and practice proper hand washing, regardless of their job or activities on the farm.

4—Materials

- Sink
- Water
- Soap
- Single-use paper towels
- Trash can (preferably with a lid)

5—Procedure
Procedure to be completed before the beginning of work, after each break, after eating or smoking, after using the toilet, at the end of the day and at any other time hands become dirty.

1. Wet hands with water.
2. Apply soap and lather. Be sure to wash the front and backs of hands as well as in between the fingers. Rub hands together for AT LEAST 20 seconds.
3. Rinse hands thoroughly.
4. Dry with a paper towel (and turn off faucet with used paper towel).
5. Throw the paper towel in the trash can.



<u>Policies/SOP's</u>	<u>Records</u>	<u>Supporting Documents</u>
Section 1 Food Safety Plan		
<input type="checkbox"/> General Information	<input type="checkbox"/> Training Records	<input type="checkbox"/> Mapping
<input type="checkbox"/> Recall- Traceability Policy	<input type="checkbox"/> Corrective Actions	<input type="checkbox"/> PSA Training Certificate
<input type="checkbox"/> Training Policy		<input type="checkbox"/> Mock Recall Exercise
<input type="checkbox"/> Food Defense Policy		<input type="checkbox"/> Risk Assessments
<input type="checkbox"/> HACCP/HARPC Plan	<input type="checkbox"/> HACCP/HARPC Records	
Section 2 Facilities, Employee Health & Hygiene		
<input type="checkbox"/> Blood/Bodily Fluid SOP	<input type="checkbox"/> Rest Room Stock/Sanitation	<input type="checkbox"/> Employee Hygiene Posting
<input type="checkbox"/> Hygiene Policy	<input type="checkbox"/> Employee Illness Log	<input type="checkbox"/> Visitor/Contractor Posting
<input type="checkbox"/> Glove Policy		<input type="checkbox"/> Hand Wash Signage
Section 3 Compost		
<input type="checkbox"/> Compost Handling	<input type="checkbox"/> Compost Monitoring	
	<input type="checkbox"/> Compost Applications	
<input type="checkbox"/> Sanitation SOP - Utensil	<input type="checkbox"/> Compost Utensil Sanitation	
Section 4 – Animals		
<input type="checkbox"/> Animal Incursion Policy	<input type="checkbox"/> Animal Incursions	<input type="checkbox"/> Petting Zoo Signage
<input type="checkbox"/> Farm Animal & Pet Zoo Policy		<input type="checkbox"/> Pet Restriction Signage
Section 5 –Water		
<input type="checkbox"/> Water Change Out SOP	<input type="checkbox"/> Water System Inspection	<input type="checkbox"/> Water Test Results
<input type="checkbox"/> Mix/Monitoring Sanit. SOP	<input type="checkbox"/> Wash water Monitoring/Changeout	<input type="checkbox"/> Ice Test Results

Documents you may need to have on hand...

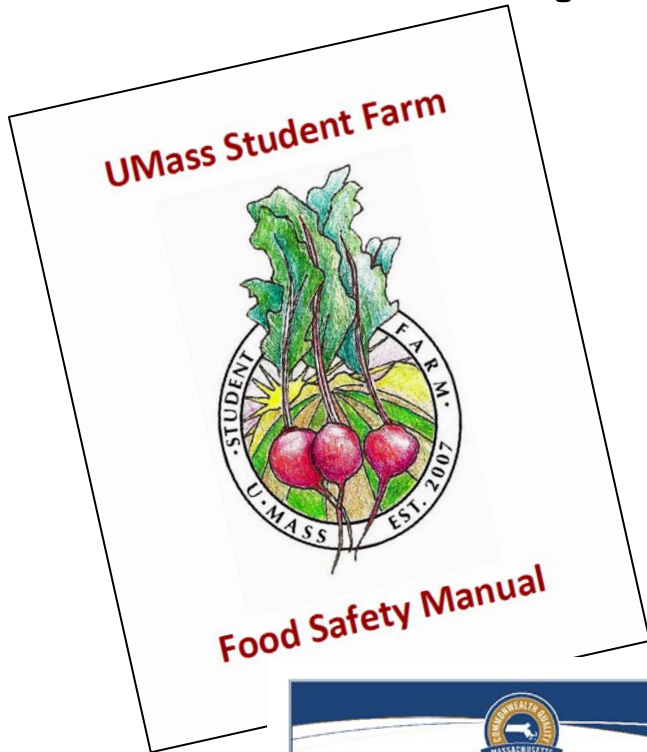
- **CQP farm registry form**
- **CQP checklist** to help with risk assessments
- **Farm maps** with fields outlined
- **SOPS**
- **Records** you may already be keeping, including for other purposes (e.g., organic certification)
- **Packinghouse floor plan** showing product flow. Can be hand drawn and simple.
- **List of contracted services** you have. May include:
 - pest control
 - portable toilet rental/servicing
 - trucking/transportation
 - and any recordkeeping documents they supply

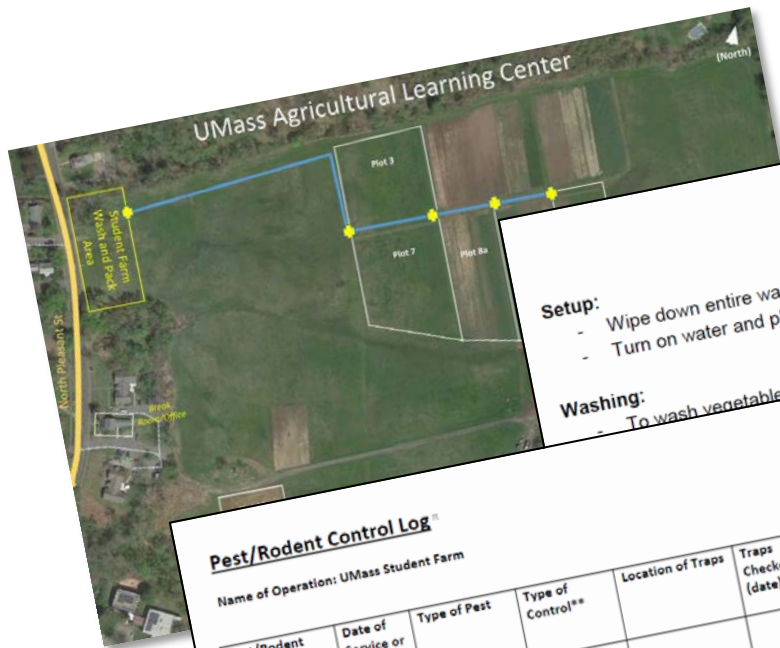
Farm Food Safety Plan writing resources

- **UMass:** <https://ag.umass.edu/resources/food-safety/for-farmers/farm-food-safety-plans-traceability>
- **PSA:** <https://producesafetyalliance.cornell.edu/resources/farm-food-safety-plan-writing-resources/>
- **NECAFS Clearinghouse:** <http://www.uvm.edu/extension/necafs/clearinghouse/>

Example food safety plan

UMass Student Farm





SOP Brush Washer

Setup:

- Wipe down entire washer with bleach water. Ensure there is no debris or damage.
- Turn on water and plug in brush washer to turn it on.

Washing:

- To wash vegetables, place on intake section of brush washer. The foam brushes on the inside of the washer.
- Turn on water and brush washer. The foam brushes on the inside of the washer will clean the vegetables. The foam brushes on the outside of the washer will clean the table.
- Turn the brush washer on for 1 minute. This will help clean the brush washer.

Pest/Rodent Control Log

Name of Operation: UMass Student Farm

Pest/Rodent Company Used* or Self	Date of Service or Action Taken	Type of Pest	Type of Control**	Location of Traps	Traps Checked (date)	Checked by (name)

*If using a company for service, attach report or receipt of service for each of their visits.
 **List type of control methods used such as exclusion, traps, poison, repellants, etc.

1.2 Accountability

1.2.1

The following employees have accountability for food safety at our farm:
Amanda Brown, Director of UMass Student Farm, Food Safety Compliance and Training Director

24-hour contact information in the event of a food safety emergency is as follows:

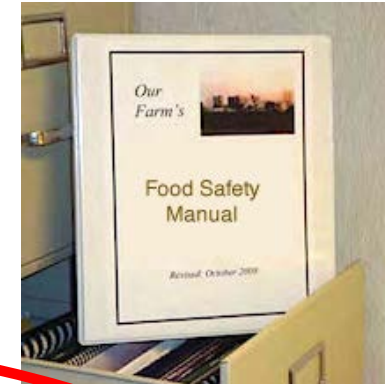
Contents:

SECTION 1: General Requirements.....	3
SECTION 2: Worker Health and Hygiene.....	5
SECTION 3: Previous Land Use and Site Selection.....	9
SECTION 4: Agricultural Water.....	9
SECTION 5: Agricultural Chemicals.....	11
SECTION 6: Animals and Pest Control.....	12
SECTION 7: Soil Amendments and Manure.....	13
SECTION 8: Field Harvesting.....	13
SECTION 9: Transportation (field to Packing House).....	17
SECTION 10: Packaging Procedure.....	18
SECTION 11: Final Product Transport.....	23
APPENDIX.....	24



Farm Food Safety Plan Parts

- Farm name and address
- Farm description
 - Commodities grown, farm size, etc.
- Name and contact information for the farm food safety manager
- Risk assessment of practices and environmental conditions on your farm that impact food safety
- Practices to reduce food safety risks
- Records that document practices





Steps Towards Produce Safety

1

- Assess Produce Safety Risks

2

- Implement Practices

3

- Monitor Practices

4

- Use Corrective Actions

5

- Keep Records





Assessing Risks



- **Assess your farm and practices**
 - Location of farm, fields, and adjacent land activities that may represent risks to the crops you grow
 - Fecal contamination risk from domesticated or wild animals
 - Use of water and manure in crop production
 - Worker training programs and hygiene facilities
 - Practices used to grow, harvest, pack, or hold produce and the tools and equipment
 - Typical and atypical (e.g., flooding) situations

2.4 Agricultural Water Risk Assessment

Our water system risk assessment is documented in our description of our water system and our water management plan as described below. We consider historical water testing results, the characteristics of the crop, the stage of the crop, and the method of application. We review it annually or whenever changes are made to the system.

Our water system description includes the chart below and information on our farm map. Water source and use is compliant with state and federal regulations. Water used for hand washing in field sanitation units is not required to meet EPA potability standards if chlorine or other acceptable agents are added to reduce the possibility of microbial contamination. Water systems used for clean water are never mixed with waste water and are designed to prevent cross-contamination.

WATER SOURCES AND USES

Use\Source	Municipal	Private Well	Surface water
Drinking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Not permitted
Hand Washing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cleaning food contact surfaces	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Washing produce	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Irrigation: <input type="checkbox"/> None <input type="checkbox"/> Overhead sprinkler <input checked="" type="checkbox"/> Drip <input type="checkbox"/> Furrow <input type="checkbox"/> Flood	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fertilizer application	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pesticide / Fungicide application	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*From Penn State
sample Farm
Plan*

<https://extension.psu.edu/sample-harmonized-food-safety-plan>

UMass Student Farm

RISK ASSESSMENT – Agricultural Water

Inspection Date	Water Source	Risks identified?	Corrective and/or preventative actions if necessary	Identified by: Initials	Date Corrective action completed	Completed by: Initials

Ingredients or Process Step	Hazard Type	Hazard Justification	Risk Assessment		Control Measure
			Likelihood	Severity	
Field Packing	Chemical	contaminated containers	L	M	Maintain containers in good condition
	Physical	poor conditioned containers	M	L	Watch container placement in field pack activity to ensure that you are not cross contaminating
	Biological	contaminated containers	L/M	H	Use harvest containers for their intended use only - re-use of containers should be monitored to prevent cross contamination

From Earthbound foods sample risk assessment guide



Pre-Harvest Risk Assessment	Inspection date (mm/dd/yr) : _____ Conducted by: _____		
	Yes*	Correction Actions if Necessary	Yes (after correction made)
* A check mark in the Yes column means that each of the items below is under control and therefore does not represent a threat to the safety of the harvested crop. All risks must be checked Yes before harvesting can begin.			
Harvesters and Handlers			
Workers have been trained on personal hygiene and practices that can contribute to contamination			
Workers have been checked for compliance with hygiene policies.			
Field and Perimeter			
There are no farm animals or wildlife present in the field.			
There are no signs of animal droppings or other recent animal activity in the field			
There are no signs of recent flooding from nearby creeks, streams, and rivers or overflowing manure storage tanks and septic systems.			
Hand Washing and Toilet Facilities			
Toilet facilities are available, accessible, and adequate in number.			
Toilet facilities are clean and equipped with hand washing stations.			
Hand washing stations are adequately supplied			

OFFERED BY Massachusetts Department of Agricultural Resources

Commonwealth Quality Program



A brand designed to identify locally sourced products that are grown, harvested and processed right here in Massachusetts.

Commonwealth Quality, a brand designed by the Massachusetts Department of Agricultural Resources, serves to identify locally sourced products that are grown, harvested and processed right here in Massachusetts using practices that are safe, sustainable and don't harm the environment. Commonwealth Quality-certified growers, producers, harvesters and processors not only meet stringent federal, state and local regulatory requirements, but also employ best management practices and production standards that ensure consumers receive the safest, most wholesome products available.

CONTACT

Michael Botelho

Phone

617-626-1721

Online

Michael.Botelho@mass.gov

CQP and FSMA

- MDAR is lead regulatory authority in MA for FSMA Produce Safety Rule
- Integrate CQP audit checklist with FSMA Produce Safety Rule
- Produce Inspections = Outbound support
- CQP audits for Market Access = Inbound support
- Farm registry

What is CQP?



- Voluntary 3rd-party audit program
- Designed to educate, assist in change management
- On-farm technical support
- Support dialogue and transparency between buyer and producer
- Provide Grant assistance (AFSIP, AEEP, ACRES)



MDAR team:

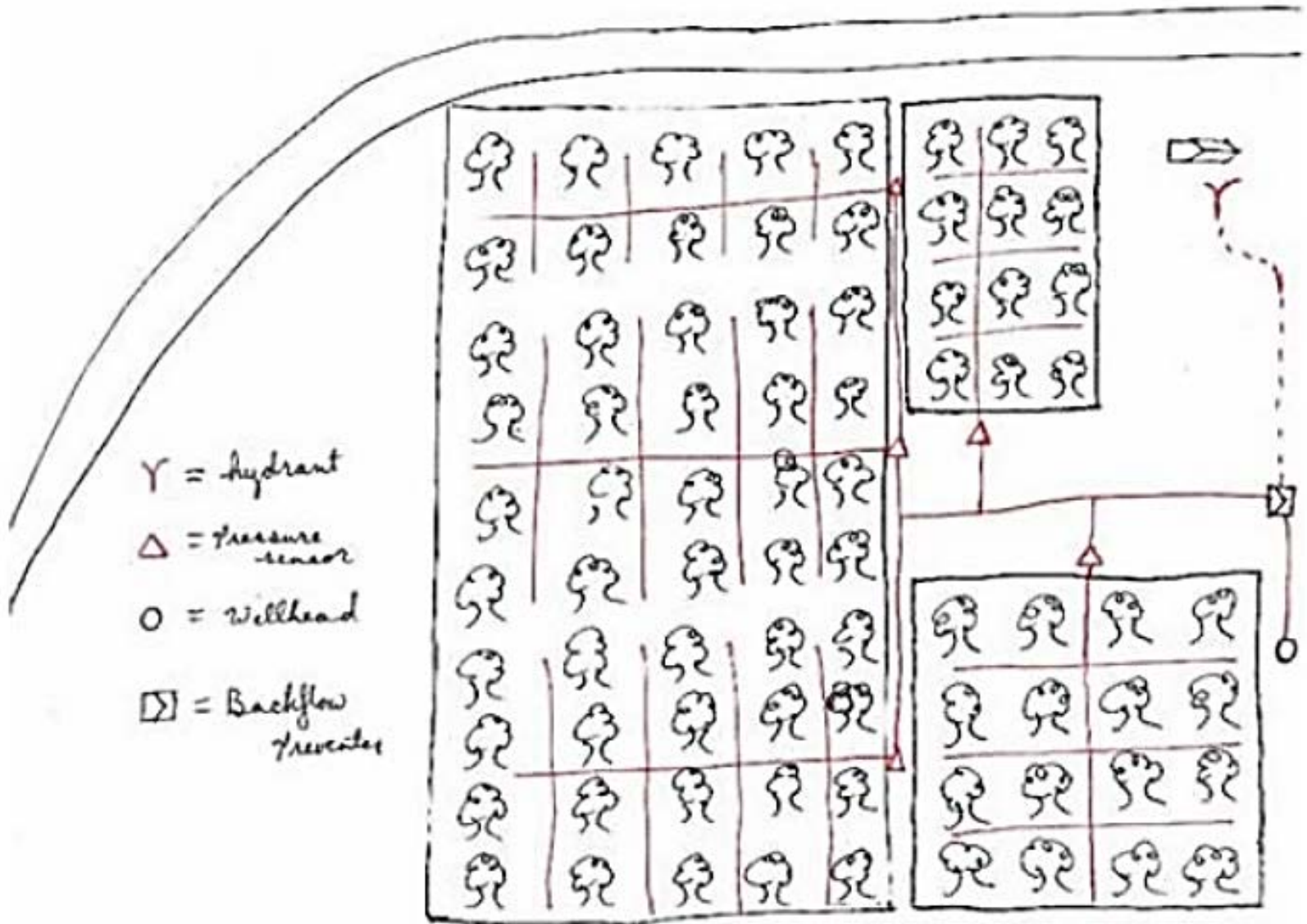
- Feedback about food safety plans
- Templates, sample SOPs forthcoming
- Plan for distributing documents, templates
- Expectations around inspections and audits

Policies/SOP's	Records	Supporting Documents
Section 1 Food Safety Plan		
<input type="checkbox"/> General Information	<input type="checkbox"/> Training Records	<input type="checkbox"/> Mapping
<input type="checkbox"/> Recall- Traceability Policy	<input type="checkbox"/> Corrective Actions	<input type="checkbox"/> PSA Training Certificate
<input type="checkbox"/> Training Policy		<input type="checkbox"/> Mock Recall Exercise
<input type="checkbox"/> Food Defense Policy		<input type="checkbox"/> Risk Assessments
<input type="checkbox"/> HACCP/HARPC Plan	<input type="checkbox"/> HACCP/HARPC Records	
Section 2 Facilities, Employee Health & Hygiene		
<input type="checkbox"/> Blood/Bodily Fluid SOP	<input type="checkbox"/> Rest Room Stock/Sanitation	<input type="checkbox"/> Employee Hygiene Posting
<input type="checkbox"/> Hygiene Policy	<input type="checkbox"/> Employee Illness Log	<input type="checkbox"/> Visitor/Contractor Posting
<input type="checkbox"/> Glove Policy		<input type="checkbox"/> Hand Wash Signage
Section 3 Compost		
<input type="checkbox"/> Compost Handling	<input type="checkbox"/> Compost Monitoring	
	<input type="checkbox"/> Compost Applications	
<input type="checkbox"/> Sanitation SOP - Utensil	<input type="checkbox"/> Compost Utensil Sanitation	
Section 4 – Animals		
<input type="checkbox"/> Animal Incursion Policy	<input type="checkbox"/> Animal Incursions	<input type="checkbox"/> Petting Zoo Signage
<input type="checkbox"/> Farm Animal & Pet Zoo Policy		<input type="checkbox"/> Pet Restriction Signage
Section 5 –Water		
<input type="checkbox"/> Water Change Out SOP	<input type="checkbox"/> Water System Inspection	<input type="checkbox"/> Water Test Results
<input type="checkbox"/> Mix/Monitoring Sanit. SOP	<input type="checkbox"/> Wash Water	<input type="checkbox"/> Ice Test Results








Agenda

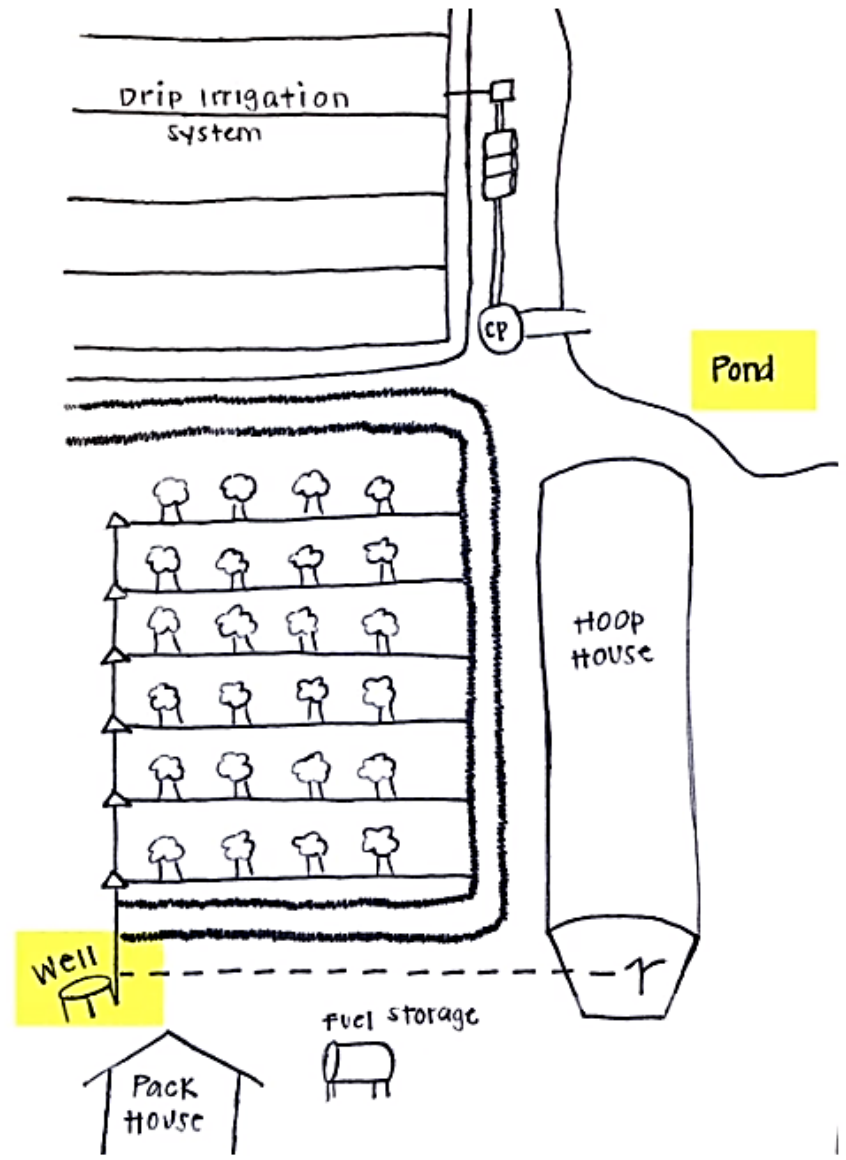
- Intro to Food Safety planning
- **Water: assessing risks and making a distribution map**
- Standard Operating Procedures
- Other parts of a food safety plan – next steps

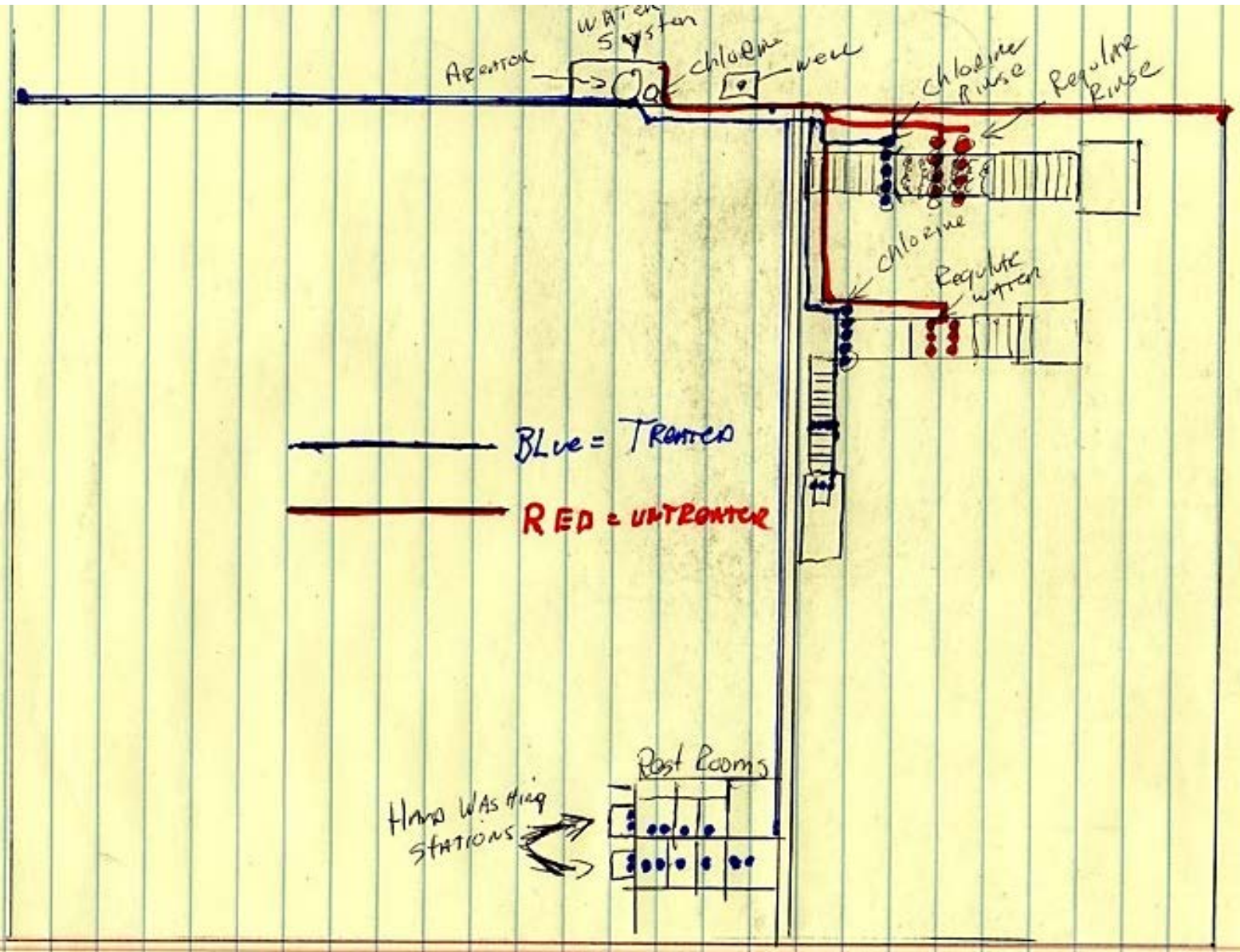




KEY

- Check valve 
- Sand filters 
- Pressure sensors 
- Frost free hydrant 
- Hydrant cross connection 
- Road 
- Centrifugal pump 












LEGEND

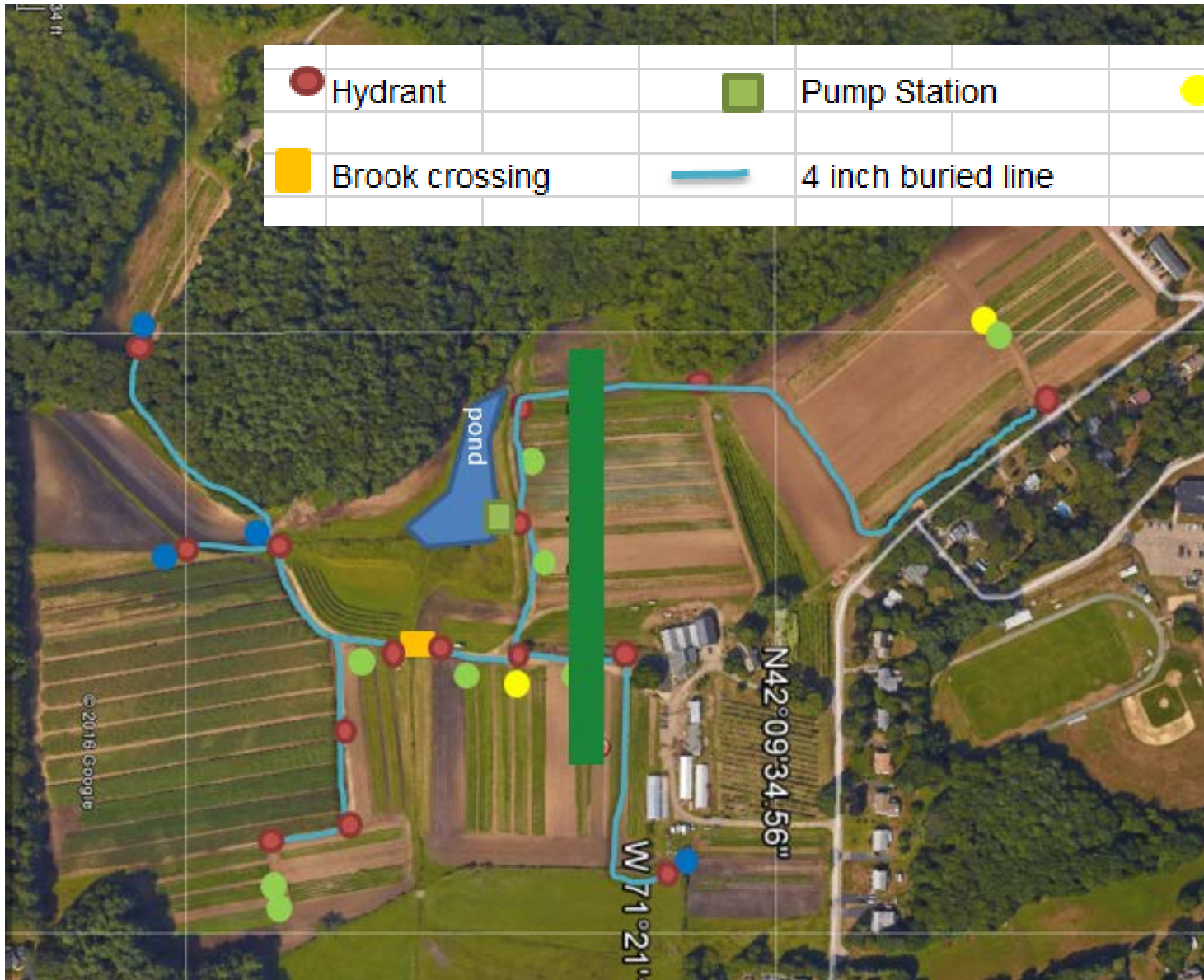
- = Field Well
90-110 ft depth
- ◆ = Spray Mix Well
40 ft depth
- = Water Distribution
- ⋯ = Field Boundary*
- = Row Covers Shed

NOTES

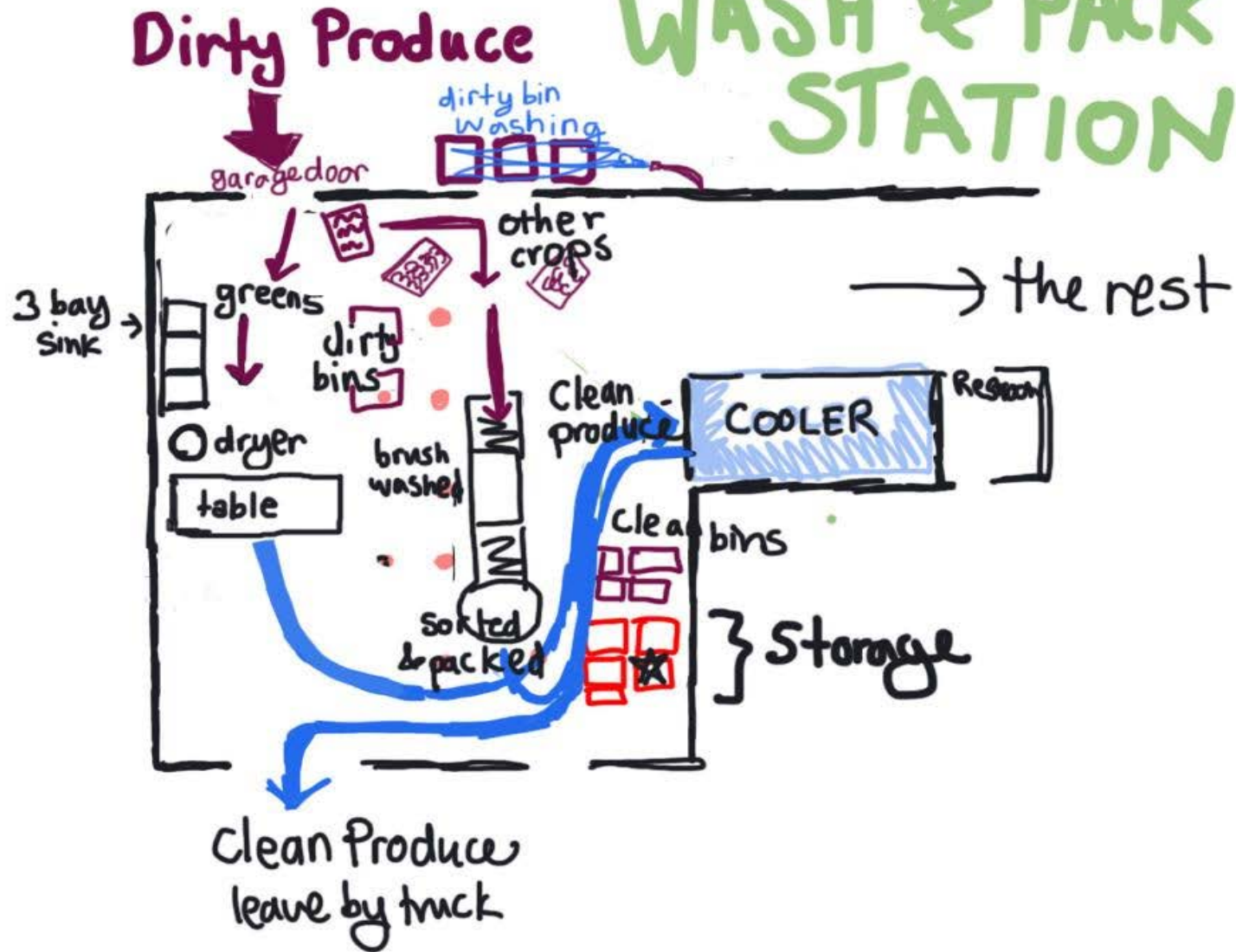
Seepage Irrigation
Well3/F1F enclosed
*20 ft perimeter canals**

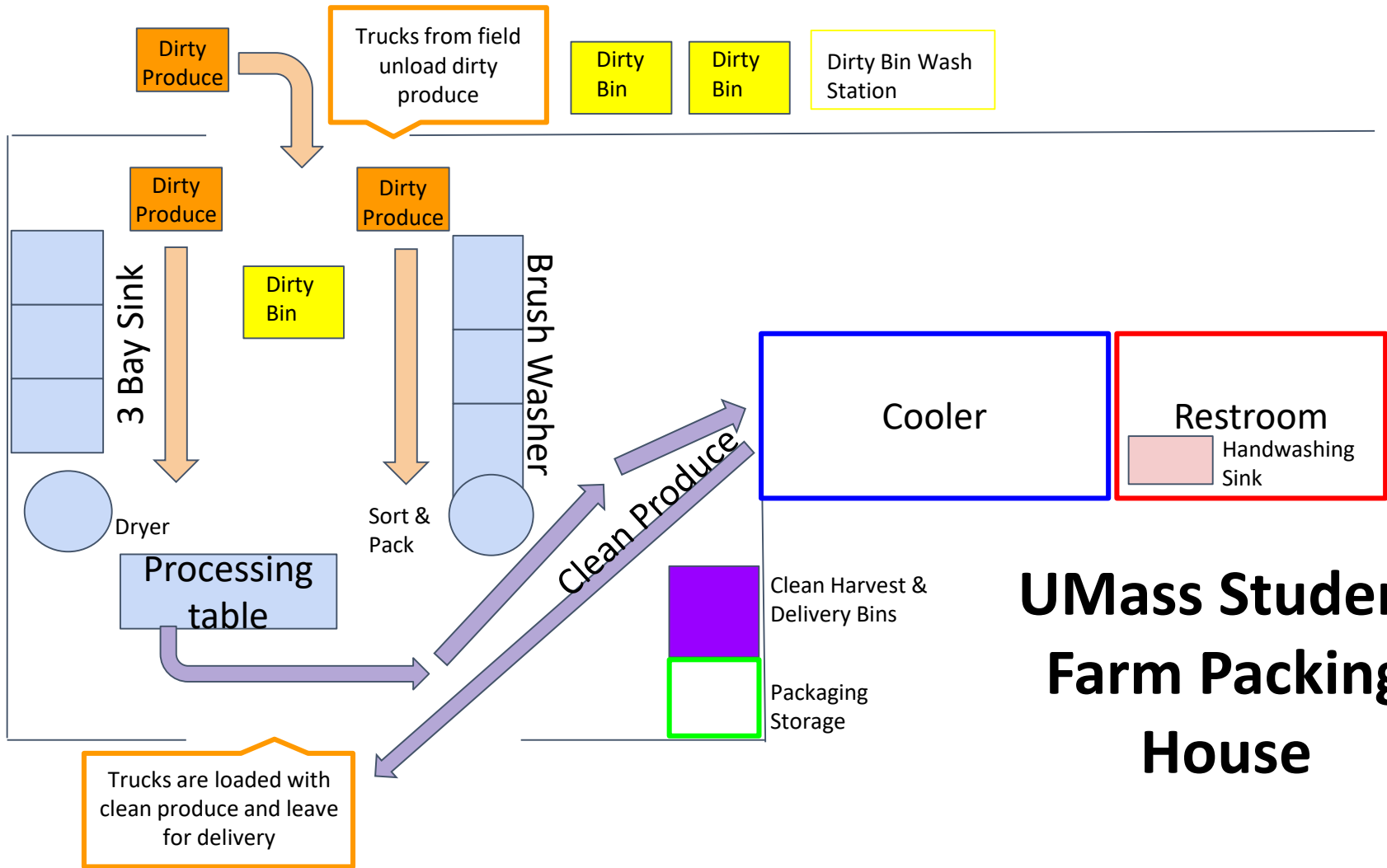


	Hydrant		Pump Station		Gravity drain
	Brook crossing		4 inch buried line		



WASH & PACK STATION





UMass Student Farm Packing House

Tools for creating maps

- Pen and paper

- Google Maps

- Mass GIS:

http://maps.massgis.state.ma.us/map_ol/oliver.php

- PowerPoint

Water System Inspections

- Both FSMA's Produce Rule and CQP require annual water system inspection

Water System Inspection Record *Template*

Name and address of farm: _____

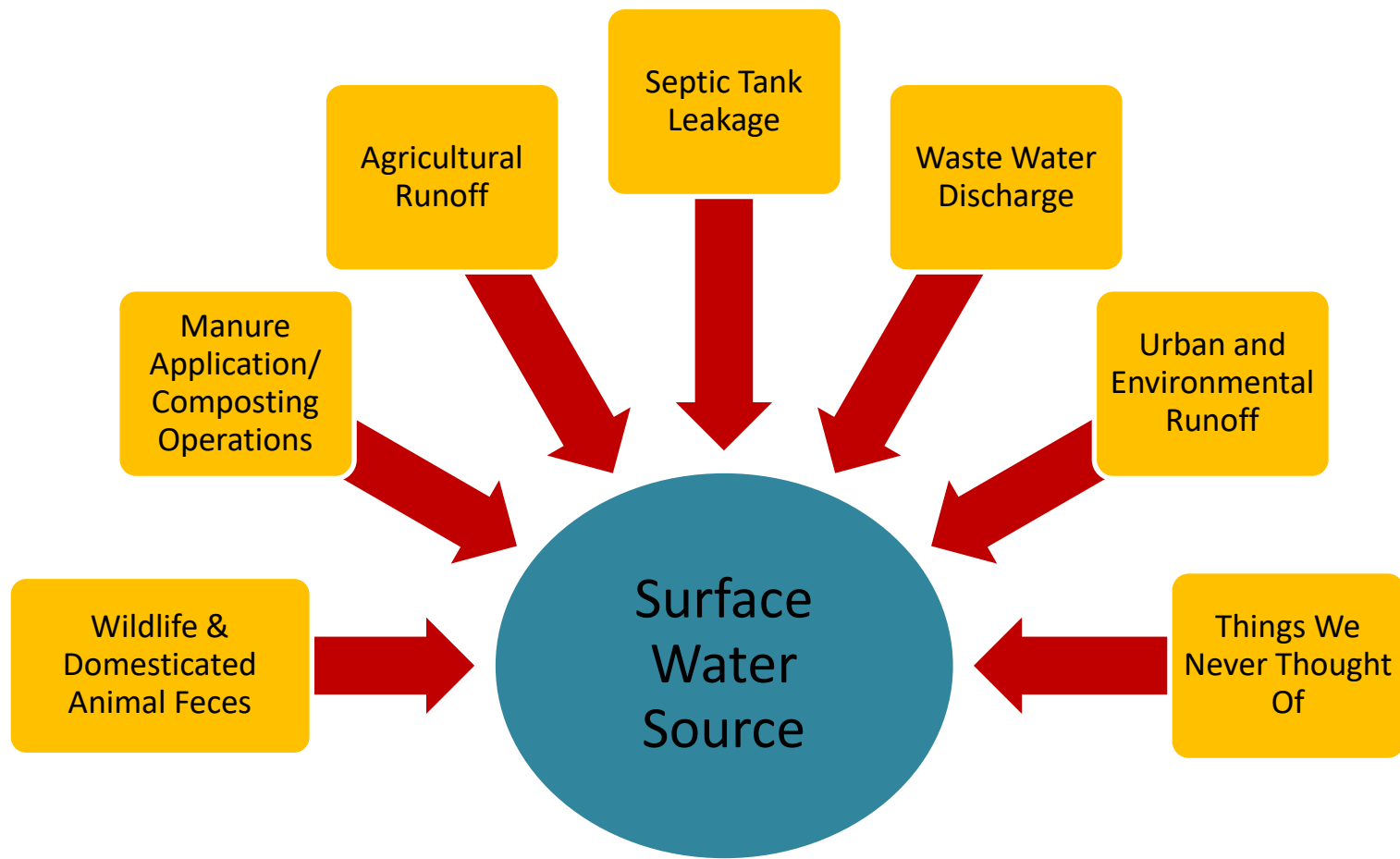
See farm policy for specific water distribution system inspection procedures.

Date	Time	Water Source and/or Distribution System	Observations	Corrective Actions Taken	Initials
4/22/16	7:00 AM	Well 1, north field	Well casing in good shape, backflow prevention device in place, no broken pipes	None	EAB
4/22/16	9:00 AM	Pond, south field	Significant geese presence	Introduced swan decoys. Will monitor	EAB

Reviewed by: _____ Title: _____ Date: _____



Potential Sources of Surface Water Contamination





Preventing Contamination of Surface Water Sources

- **Assess nearby land use** and upstream water activities to identify risks
 - Work with neighbors and local watershed groups to understand and minimize identified risks
- **Assess and address runoff risks**
 - Develop diversion ditches, berms or containments to minimize environmental runoff, runoff from manure and compost piles, or runoff from livestock feeding areas
- **Monitor and control animal access** to irrigation water sources where practical (e.g., irrigation reservoirs)



Inspect Agricultural Water Sources and Water Distribution Systems

- Water can be contaminated at the source, or it can become contaminated in the distribution system
- Mapping all water distribution systems is recommended
- Water sources and distribution systems must be inspected at least annually
- Must keep water sources free of debris, trash, domesticated animals, and other hazards





Water Systems Inspections



MSU Extension Agrifood Safety
Published on Jan 31, 2019

<https://www.youtube.com/watch?v=94tqcqnKQo0>



WATER SYSTEM MAPPING

Identify key components

Water system key	
Component	Color/symbol
Surface water	
Well	
Municipal hydrant	
Irrigation lines	
Headers	
Pumps	
Septic tanks	
Backflow devices	

For each field this season, indicate:

- Crops
- Drip vs. overhead
- Flow of water
- Flow of product

WHAT ARE THE RISKS TO THE SYSTEM?

Think about...

- **Animals** – hedgerows, migration paths, domestic animals
- **Distribution system** – where are mains? Pumps? Where do you store your irrigation pipes? What type of irrigation system? Drip or overhead (that year)?
- **Product flow**
- **Workers** – bathrooms, handwashing, where are porta potties sited?
- **Terrain, buildings** – structures, fields, livestock; sloping, erosion, compost areas?

Looking at your map, describe the risks on your farm.

What would you do to mitigate those risks?

Agenda

- Intro to Food Safety planning
- Water: assessing risks and making a distribution map
- **Standard Operating Procedures**
- Other parts of a food safety plan – next steps

Standard Operating Procedures

- Outline how to complete a task
- Help save time, train workers, and be consistent
- Should start with either doing a task yourself, or watching somebody else do it
- Useful where there is high worker turnover and a frequent need for retraining
- If a task needs to be done more than twice – whether twice a week or twice a year – you should have an SOP for it

Characteristics of good SOPs

- Easily accessible – e.g., posted at eye level
- Able to be followed by anyone with basic knowledge
- Written using short, direct sentences and simple words wherever possible. Bulleted or numbered lists are usually good
- Use diagrams and pictures wherever appropriate
- Separate general information from instructions
- Don't micromanage. Leave out unessential details

Tasks that may warrant a written SOP

- Leafy greens washing, drying and packing
- Tote washing and sanitizing
- Monitoring and changing sanitizers in wash water
- Moving animals
- Water sampling
- Mixing and applying pesticides
- Monitoring irrigation equipment
- Any task that you want done efficiently and consistently...

Standard Operating Procedure

From MDAR CQP document list

Wash Water Change Out

Purpose: Visual identification of when rinse water container is to be emptied.

Scope: Ensure rinse water is acceptable quality when rinsing product.

Responsibility: Trained personnel.

Materials: Potable water, rinse container identified for this purpose only.
XYZ Detergent, XYZ Sanitizer

Procedure:

1. Fill container $\frac{3}{4}$ full with potable water.
2. Dunk/rinse covered crops first.
3. Every 15 minutes the water will be emptied and refilled with fresh water.
4. Change outs will be documented on Water Change Out Log
5. When switching to non-covered crops the container will be emptied, cleaned and sanitized prior to refilling.
6. At end of process container will be emptied, cleaned, sanitized and hung on wall to dry.

Record: Water Change Out Log

Farm Name
Address
Nowhere, MA 00000

Water Change – Out Log

Date	Start Time	Change Out Time	Cleaned/Sanitized	Notes/Corrective Actions	Performed By
3/1/19	9:15 am	9:30 am	Yes <input type="radio"/> No <input checked="" type="radio"/>	Beets	dP
" "	9:45 am	10:00 am	<input checked="" type="radio"/> Yes <input type="radio"/> No	switch to radish	ES
" "	10:00 am	10:35 am	Yes <input type="radio"/> No <input checked="" type="radio"/>	radish - stopped	ES
			Yes <input type="radio"/> No <input type="radio"/>		
			Yes <input type="radio"/> No <input type="radio"/>		
			Yes <input type="radio"/> No <input type="radio"/>		
			Yes <input type="radio"/> No <input type="radio"/>		
			Yes <input type="radio"/> No <input type="radio"/>		
			Yes <input type="radio"/> No <input type="radio"/>		
			Yes <input type="radio"/> No <input type="radio"/>		

SOP Cleaning Coolers

1. As needed clean coolers
2. Remove all pallets and produce from cooler
3. Sweep floor clean and then mop with bleach water.
4. Ensure floor is dry before produce is brought back in. Employees may use their best judgment to air dry or dry with paper towels.
5. Bring pallets back into cooler and then place produce once again on them.

Sample SOP: Hand Washing

Revision: 2.0

Date: 07/16/14

1—Purpose

Describes the correct method for hand washing while working or visiting the farm.

2—Scope

Applies to all farm personnel including farm owners, and workers, and farm visitors.

3—Responsibility

Everyone on the farm should understand and practice proper hand washing, regardless of their job or activities on the farm.

4—Materials

- Sink
- Water
- Soap
- Single-use paper towels
- Trash can (preferably with a lid)

5—Procedure

Procedure to be completed before the beginning of work, after each break, after eating or smoking, after using the toilet, at the end of the day, and at any other time hands become dirty.

1. Wet hands with water.
2. Apply soap and lather. Be sure to wash the front and backs of hands as well as in between the fingers. Rub hands together for AT LEAST 20 seconds.
3. Rinse hands thoroughly.
4. Dry with a paper towel (and turn off faucet with used paper towel).
5. Throw the paper towel in the trash can.

Sample SOP: Cleaning and Sanitizing Surfaces, Tools, and Equipment

Revision: 1.0

Date: 07/22/2014

1—Purpose

Describes how food contact surfaces, tools, and equipment are to be cleaned and sanitized.

2—Scope

Applies to farm and packinghouse personnel including farm owners and workers.

3—Responsibility

Workers are responsible for following the SOPs to properly clean and sanitize food contact surfaces. Farm owners and food safety managers are responsible for training the workers on proper technique, providing necessary resources such as tools, detergents and sanitizers, and making sure the cleaning and sanitizing steps are followed correctly.

4—Materials

- Detergent name, brand, and concentration (labeled for use on food contact surfaces)
[Provide name here]
- Sanitizer name, brand, and concentration *[Provide name here]*
- Container(s) as needed for mixing and using detergent(s) and sanitizer(s) or for washing tools
- Brushes, sponges, or towels for scrubbing tools and equipment
- Clean water (microbial equivalent to drinking water)

5—Procedure

1. The surface should be brushed or rinsed to remove visible dirt and debris.
2. Prepare the detergent *[Add detergent mixing or preparation instructions here]*.
3. Apply the prepared detergent solution and scrub the surfaces moving in the direction top to bottom for large pieces of equipment. Detergent should be mixed according to the product instructions.
4. Rinse the surface with clean water until all soap suds are rinsed away moving in the direction top to bottom for large pieces of equipment.
5. Prepare the sanitizer. *[Add sanitizer mixing or preparation instructions here]*.
6. Apply the prepared sanitizer solution. Allow it to sit for *[Enter number of minutes according to product instructions]* minutes.
7. Rinse with clean water.
8. Let the surface air dry.



Clean Greens: A standard operating procedure (SOP) for triple-rinsing greens



UMass Amherst Extension Vegetable Program

https://youtu.be/NTu_Q_kpRgM

Agenda

- Intro to Food Safety planning
- Water: assessing risks and making a distribution map
- Standard Operating Procedures
- Other parts of a food safety plan – next steps

1.2 Food Safety Plan

1.2.1 Food Safety Plan Contents

The following pages identify the policies, procedures, practices and supporting documentation that support safe food production and processing at Paul's Farm. This plan covers all areas of operation as well as the staff, service providers and visitors at the farm. The products covered under this plan are listed below.

The products covered under this plan are listed below.

Butternut Squash	Rutabaga
Cabbage	
Pickle Cucumbers	
Summer Squash	
Zucchini	
Winter Squash	

The production areas and facilities covered under this plan are listed on page 7 and in Annex 1.



- What are the rest of the steps you need to complete to create your food safety plan?
- What resources do you need?
- CQP sample SOPs and templates coming...

<u>Policies/SOP's</u>	<u>Records</u>	<u>Supporting Documents</u>
Section 1 Food Safety Plan		
<input type="checkbox"/> General Information	<input type="checkbox"/> Training Records	<input type="checkbox"/> Mapping
<input type="checkbox"/> Recall- Traceability Policy	<input type="checkbox"/> Corrective Actions	<input type="checkbox"/> PSA Training Certificate
<input type="checkbox"/> Training Policy		<input type="checkbox"/> Mock Recall Exercise
<input type="checkbox"/> Food Defense Policy		<input type="checkbox"/> Risk Assessments
<input type="checkbox"/> HACCP/HARPC Plan	<input type="checkbox"/> HACCP/HARPC Records	
Section 2 Facilities, Employee Health & Hygiene		
<input type="checkbox"/> Blood/Bodily Fluid SOP	<input type="checkbox"/> Rest Room Stock/Sanitation	<input type="checkbox"/> Employee Hygiene Posting
<input type="checkbox"/> Hygiene Policy	<input type="checkbox"/> Employee Illness Log	<input type="checkbox"/> Visitor/Contractor Posting
<input type="checkbox"/> <i>Glove Policy</i>		<input type="checkbox"/> Hand Wash Signage
Section 3 Compost		
<input type="checkbox"/> <i>Compost Handling</i>	<input type="checkbox"/> <i>Compost Monitoring</i>	
	<input type="checkbox"/> <i>Compost Applications</i>	
<input type="checkbox"/> <i>Sanitation SOP - Utensil</i>	<input type="checkbox"/> <i>Compost Utensil Sanitation</i>	
Section 4 – Animals		
<input type="checkbox"/> Animal Incursion Policy	<input type="checkbox"/> Animal Incursions	<input type="checkbox"/> <i>Petting Zoo Signage</i>
<input type="checkbox"/> <i>Farm Animal & Pet Zoo Policy</i>		<input type="checkbox"/> Pet Restriction Signage
Section 5 –Water		
<input type="checkbox"/> <i>Water Change Out SOP</i>	<input type="checkbox"/> Water System Inspection	<input type="checkbox"/> Water Test Results
<input type="checkbox"/> <i>Mix/Monitoring Sanit. SOP</i>	<input type="checkbox"/> <i>Wash Water Monitoring/Changeout</i>	<input type="checkbox"/> <i>Ice Test Results</i>
<input type="checkbox"/> <i>Sanitation SOP – Water Tank</i>	<input type="checkbox"/> <i>Sanitizer Monitoring</i>	<input type="checkbox"/> <i>Municipal Water Cert.</i>
	<input type="checkbox"/> <i>Sanitation Water Tanks</i>	<input type="checkbox"/>
Section 6 – Post Harvest Handling/Sanitation		
<input type="checkbox"/> Sanitation SOP's	<input type="checkbox"/> Sanitation – Food Contact Equipment/Surfaces	<input type="checkbox"/> <i>Pest Control Service Agmt</i>
<input type="checkbox"/> Harvest Practices		
<input type="checkbox"/> <i>Pest Control SOP</i>	<input type="checkbox"/> Sanitation – Harvest Containers	
	<input type="checkbox"/> Sanitation – Pack Area	
	<input type="checkbox"/> Sanitation –Cooler/Storage	
	<input type="checkbox"/> <i>Pest Control Monitoring Log</i>	

Items in italics are farm dependent.

- UMass Extension Vegetable Program, *Food Safety Education*

Lisa McKeag

lmckeag@umass.edu, 413-545-1051

<https://ag.umass.edu/resources/food-safety/food-safety-for-farmers>

- Massachusetts Department of Agricultural Resources (MDAR)

<p>Michael Botelho Produce Safety Program Director Mobile: 508-985-8751 Michael.Botelho@state.ma.us</p>	<p>Kate Bailey Produce Safety Inspector Mobile: 857-315-7478 Kate.Bailey@state.ma.us Region: WEST</p>	<p>Alexandra Hachem Education, Research and Outreach Coordinator Mobile: 857-507-6346 Alexandra.Hachem@state.ma.us Region: CENTRAL EAST</p>	<p>Denise Pavao Produce Safety Inspector Mobile: 857-292-2043 Denise.Pavao@state.ma.us Region: SOUTHEAST</p>	<p>Steven Pilis Operations Coordinator Mobile: 857-507-6347 Steven.Pilis@state.ma.us Region: CENTRAL WEST</p>	<p>Erik Stenfors Produce Safety Inspector Mobile: 857-292-1872 Eric.Stenfors@state.ma.us Region: NORTHEAST</p>
