

# FSP4U

## A Food Safety Plan for You Templates and Log Sheets

Compiled by  
Michele Schermann, RN MS and Annalisa Hultberg, MS  
Research Fellows, University of Minnesota, CFANS, BBE  
Agricultural Health & Safety Program

Version 2, Updated September 2011



**UNIVERSITY OF MINNESOTA**

**Funding**

Developed by the University of Minnesota Agricultural Health and Safety Program. Published in 2011 with funding through a partnership agreement between the Minnesota Fruit and Vegetable Growers Association (MFVGA) and the United States Department of Agriculture – Risk Management Agency (RMA) Community Outreach and Assistance Partnership Program.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all of its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET center at (202) 720-2600 (Voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, SW, Washington, DC 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

**Disclaimer**

Information in this workbook and all templates are presented for planning purposes only. By following these guidelines and using the templates, you are not automatically in compliance with GAP practices. The goal of these materials is to provide a general template for starting to develop a food safety plan. The materials included here are not comprehensive, but are provided here as the basic beginnings of your Standard Operating Procedures and Log Sheets for your food safety plan. Aspects of individual operations may not be covered in this plan.

## **Acknowledgments**

Many thanks to --

Bjorn Gangeness and Teresa Engel, and the Minnesota Food Association, for graciously granting their permission to use and adapt the Standard Operating Procedure Manual they developed for Big River Foods.

Minnesota, Wisconsin, and Iowa fruit and vegetable producers for their ideas and suggestions on how to make the log sheets, policies, and procedures better, and for keeping this project grounded in reality.

The National GAPs collaborators and the members of the Produce Safety Alliance, for their feedback, suggestions, ideas, and support of our work with growers of small- and medium-sized produce farms.

Annalisa Hultberg, Marilyn Johnson, Cindy Tong, Betsy Bihn, Harley Olinske, Tracy Thomas Wilson, and Michelle Hueser, for generously reviewing, helping pull together all on all the interrelated sections of this project, and making sure I kept on schedule.

Questions, suggestions, or comments can be directed to Michele Schermann, University of Minnesota Agricultural Health and Safety Program, Bioproducts and Biosystems Engineering Department, 1390 Eckles Avenue, St. Paul, MN 55108-6005, phone: 612-624-7444, or email: [safety@umn.edu](mailto:safety@umn.edu).

## Table of Contents

<b>INTRODUCTION.....</b>	<b>6</b>
DOCUMENTING YOUR FOOD SAFETY PLAN .....	7
WHAT IS A FOOD SAFETY PLAN? .....	7
THE PRODUCE AUDIT .....	7
RECORDKEEPING.....	9
HOW TO USE THIS WORKBOOK .....	10
DOCUMENTS YOU WILL NEED TO GET STARTED.....	13
STANDARD OPERATING PROCEDURE DOCUMENT.....	18
FARM NAME MISSION STATEMENT.....	21
FARM LOCATION AND LAND MANAGEMENT .....	21
<b>GENERAL SECTION.....</b>	<b>22</b>
TRACEABILITY PROCEDURES.....	22
COMPANY HEALTH AND HYGIENE POLICY .....	24
VISITOR HEALTH AND HYGIENE POLICY .....	25
HANDWASHING AND TOILET FACILITIES.....	26
INJURY AND ILLNESS POLICIES .....	28
DRINKING WATER POLICY .....	30
SAFETY DURING APPLICATION OF CHEMICALS .....	30
EMPLOYEE FOOD SAFETY AND SECURITY EMPOWERMENT.....	30
CLOTHING, JEWELRY, AND CELL PHONE POLICY .....	31
POLICY ON TAKING BREAKS .....	32
<b>PART 1. FARM REVIEW .....</b>	<b>33</b>
WATER QUALITY ASSESSMENT .....	33
ANIMALS/WILDLIFE/LIVESTOCK/MANURE LAGOONS .....	34
MANURE AND MUNICIPAL BIOSOLIDS .....	38
SOIL ASSESSMENT .....	39
<b>PART 2. FIELD HARVEST AND FIELD PACKING ACTIVITIES .....</b>	<b>39</b>
PRE-HARVEST RISK ASSESSMENT STATEMENT.....	40
FIELD SANITATION AND HYGIENE.....	41
POLICY AND PROCEDURE FOR HANDLING A SEPTIC OR SANITATION HAZARD IN THE FIELD .....	42
FIELD HARVESTING AND TRANSPORTATION .....	43
<b>PART 3. PACKING HOUSE FACILITY.....</b>	<b>46</b>
WASHING/PACKING LINE.....	46
PACKING HOUSE WORKER HEALTH AND HYGIENE POLICY .....	48
PACKINGHOUSE GENERAL HOUSEKEEPING .....	49
POLICY FOR PRODUCE THAT HITS THE FLOOR.....	49

RODENT AND PEST CONTROL.....	50
<b>PART 4. STORAGE AND TRANSPORTATION.....</b>	<b>51</b>
VEHICLES FOR PRODUCE TRANSPORTATION TO MARKET.....	51
<b>APPENDIX A.....</b>	<b>53</b>
LOGSHEETS – ONLY USE WHAT YOU NEED.....	53
<b>APPENDIX B.....</b>	<b>54</b>
PROPER HAND WASHING TECHNIQUE.....	54
<b>APPENDIX C.....</b>	<b>55</b>
WATER TESTING PROCEDURES.....	55
<b>APPENDIX D.....</b>	<b>56</b>
HOW TO CALIBRATE A THERMOMETER.....	56
<b>RESOURCES.....</b>	<b>57</b>

## **Introduction**

In recent years, there has been growing interest in locally produced fresh fruits, vegetables, and other food products. Farmers' markets have become a common feature of local efforts to encourage community economic development by promoting locally grown products. The health benefits of eating lots of fresh fruits and vegetables have been clearly demonstrated and encouraged by national and international nutrition and health authorities. Given the choice, many consumers prefer locally grown products, and are often very willing to support the hard work of local growers who bring fresh and wholesome products into their communities. However, in recent years fresh fruits and vegetables have been linked to outbreaks of foodborne illnesses. Since those outbreaks, many people have concerns about the potential safety of fresh fruits and vegetables.

This workbook and accompanying templates are designed to help Minnesota fruit and vegetable growers create a food safety program on their farm. The goal is to provide farmers with a straightforward way to document, plan and approach food safety on their farm to minimize the chance of a food safety issue or contamination of their produce.

## Documenting your Food Safety Plan

Food safety is taking center stage in the United States. Vendors and consumers are demanding that preventative measures be implemented and audited to ensure the safety of the fruits and vegetables they buy, sell, and eat.

This workbook and template will help you document your food safety plan using the Good Agricultural Practices (GAPs)/Good Handling Practices (GHPs) established by the USDA to reduce the risk of microbial contamination.

### What is a Food Safety Plan?

A **food safety plan** is your farm's guide to minimizing the potential for contamination of your produce. It is your farm's policies and practices to keep the produce safe for your consumers. YOU get to set the policies and practices within it. This workbook will help you create the plan, follow the policies, and record your actions.

### The Produce Audit

Some buyers, like supermarkets and produce distributors, are requiring that their suppliers complete an annual 3<sup>rd</sup> party audit of their produce. **The USDA Good Agricultural Practices / Good Handling Practices Audit Program (GAP/GHP)** was established to provide unbiased third-party audits of handling practices for fresh fruits and vegetables. The first item on most audits is "A documented food safety program that incorporates GAP and/or GHP has been implemented." Therefore, this workbook is designed to help you accomplish that step. The audit is essentially the "next step", and is simply a verification that you are following the practices you say you will.

Developing a food safety plan is a good idea whether or not you need to get a 3<sup>rd</sup> party audit.

**USDA GAP is one type of produce audit.** There are many other choices for audits. **For this workbook and template we are using the USDA GAPs checklist as our framework.** Your customer will most likely tell you which auditing group they require you to use. Most systems are similar to the USDA-GAPs, and some are more comprehensive covering more items. The USDA-GAPs checklist is the easiest way to get started documenting your food safety

program. Allow yourself enough time to figure out how to tailor the practices to your operation.

The State of Minnesota Fruit and Vegetable Inspection Unit Staff, the people who conduct the on-farm audit, are licensed by the USDA through a cooperative agreement to ensure that uniform standards and quality of service are applied to produce dealers in the State. These audits are available for all growers, shippers, receivers, and repackers in Minnesota.

The audits include onsite visits to review documentation and to check warehouse, storage, packing, and transportation facilities, as well as interviews with the staff members working in them.

An audit consists of a general farm review (everyone must pass this section of the audit), and several other parts:

Part 1. General Farm Review

Part 2. Field Harvest and Packing Activities

Part 3. House Packing Facility

Part 4. Storage and Transportation

Part 5. Traceability (no longer it's own part, has been incorporated into the other part)

Part 6. Wholesale Distribution Center/Terminal Warehouses

Part 6A. Traceback (wholesale)

Part 7. Food Defense

You can be audited for all parts or just the parts that relate to your operation. A passing score of 80% is required on each part to pass.

For more information about audits or to schedule an audit, please contact: Harley Olinske, Jr., at (651) 201-6067 (if you are in Minnesota), or see the Minnesota Department of Agriculture website for the fruit, vegetable, and grain unit: <http://www.mda.state.mn.us/fvgu>

## Recordkeeping

Keeping records of all farm operations is very important, especially when it comes to food safety. Even if you aren't going to have an audit, keeping records and log sheets helps with your business plan.

As you go through this workbook, you see more examples of records to keep. Here are just a few to give you an idea:

- Water test results
- Employee training programs
- Employee injury and illness
- Equipment cleaning and maintenance
- Manure and/or compost use

Showing due diligence by keeping critical records is a good business practice and may prove that contamination did not originate on your farm in the event of a foodborne illness outbreak.

Record keeping is also a valuable business tool and can help you with inventory control and planning, budgeting, insurance and loan paperwork.

**Log sheets** are used to document and verify your standard operating procedures. They may be as simple as recording toilet and hand-washing facility cleaning, or more complicated, such as monitoring and recording worker health status.

Developing recordkeeping strategies and using them to record good agricultural practices may be time consuming initially, but it is very important.

If your actions are not documented, there is no way to verify they were done. Examples of recordkeeping logs are placed throughout this workbook for you to use and adapt to your needs. See **Appendix A** for a complete list of log sheets you may need for your food safety plan.

## **How to use this workbook**

The material included here is for guidance only, it is not regulation. Please only include practices you will do and that are relevant to your operation. For example, if you do not use manure on your farm, you will not do the sections about manure storage and application.

Following these introductory pages are template pages for a food safety plan.

This food safety plan workbook covers food safety in areas most likely to be of importance to Minnesota fruit and vegetable growers.

Use this workbook and template, and adapt, change, combine, or create new log sheets to start to document your food safety program, or update what you already have.

You can also download the template and log sheet files from <http://safety.cfans.umn.edu/fsp4u.html> to your computer and use and adapt the ones that are most relevant to your operation.

You do not need to use a computer. You can write your policies and procedures on paper and make log sheets on notepaper. Keep your paperwork organized in a binder or filing system of your choice.

### ***Additional resources***

The USDA Checklists used during an audit are included at the end of this workbook. Although background data and examples have been specifically targeted to address the needs of Minnesota fruit and vegetable producers who primarily direct-market their produce, the recommendations contained in this manual may apply elsewhere.

## Getting organized

Having a food safety program is good for your business. It helps you make sure all your employees or family members know how the business runs. People can't remember every policy and procedure, and having it written down makes sure that the work gets done correctly and no one has to remember everything because it's written down and nearby.

Some people want a documented food safety program because they have a wholesale customer who wants them to get a food safety audit.

Whether you need an audit or not, the first step in a food safety program is to document all the steps you have taken—this template and instructions will help you document your program. Your Food Safety Plan tells the auditors what you have been doing, outlines procedures, and includes the forms used to verify Good Agricultural Practices.

Get a 3-ring binder (or binders) for your documents and paperwork. Or if you don't like binders, use a system that works for you that helps you keep your paperwork organized.

When you have assembled your documentation into a complete Food Safety Plan, you will have these pieces:

- Mission statement
- Farm description
- Maps
- Standard Operating Procedure document
- Policies
- Records

Our USDA inspectors in Minnesota have suggested that having your paperwork in the same order as the audit checklist saves time, which will save you money. This template is written approximately in the same order as the USDA GAPs checklist. Keep in mind that the order of the checklist changes occasionally and it's all right if you want to organize your document differently. Do what is easiest for you.

## **Writing about your farm**

### ***Mission Statement***

[optional] Write your mission statement. A mission statement is **not** required for a food safety program, but having it written down reminds you, your family, your employees, your customers, and yes, an auditor, of why you are doing what you do.

This statement should briefly and generally address your company's commitment to food safety, food quality, food sanitation and worker hygiene. Example: Management and employees at [insert your farm name here] are committed to producing and marketing a safe product through good agricultural and handling practices that focus on principles of food safety and quality.

### ***Farm description***

Describe your farm. Maybe you already have a website and have written about your farm to entice your customers to come for a visit. Use descriptive words to write a few paragraphs about your farm just as you would talk about it to someone you've just met. You can mention how long you and your family have had the farm and how it started. Include a list of personnel (seasonal and part-time), descriptions of buildings, crops grown (including how many acres of each crop and the number of trees in the orchard, etc.), and list machinery and vehicles. Include photographs [optional].

## Documents you will need to get started

If you are making this plan because you will need a USDA GAP audit please refer to the USDA GAP checklist at the end of this document in the resource section and available for download on the USDA website

<http://www.ams.usda.gov/AMSV1.0/gapghp>.

Get started by gathering the following documents.

### 1. Maps

- a. Farm maps. Make a map of the property showing all buildings, fields, roads, and water features (e.g. irrigation heads, streams, ponds). Indicate North and approximate distances to nearest towns and major roadways. Look on Google Maps to find an aerial view of the property and make notes on a printed copy.
- b. Field maps and history. Use a topographic map or a Google map.
  - i. Attach a map that includes the surrounding area. Indicate the direction of drainage on the map. Either mark adjacent property and land-use characteristics on it, or describe them in writing and attach this to the map. For example, "Next section to the north is a conventional apple orchard, small (~75 head) cow-calf operation  $\frac{3}{4}$  mile to the east and downstream of our watershed." See Figure 2.
  - ii. Write out the history. Describe the land's previous use. If the land history indicates a recent possible source of contaminants from dairy operations, feedlots, or other waste or flooding, the soil should be tested for microbial contaminants.
  - iii. Attach a map of your field growing history. Keep your growing records for at least two seasons. Label each field or section with a name or number and write down the produce grown in each area. Write down the acreage. Remember: The maps don't have to be fancy. You don't have to be an artist or a graphic designer. See Figure 1.

Figure 1. Hand-drawn Property Map

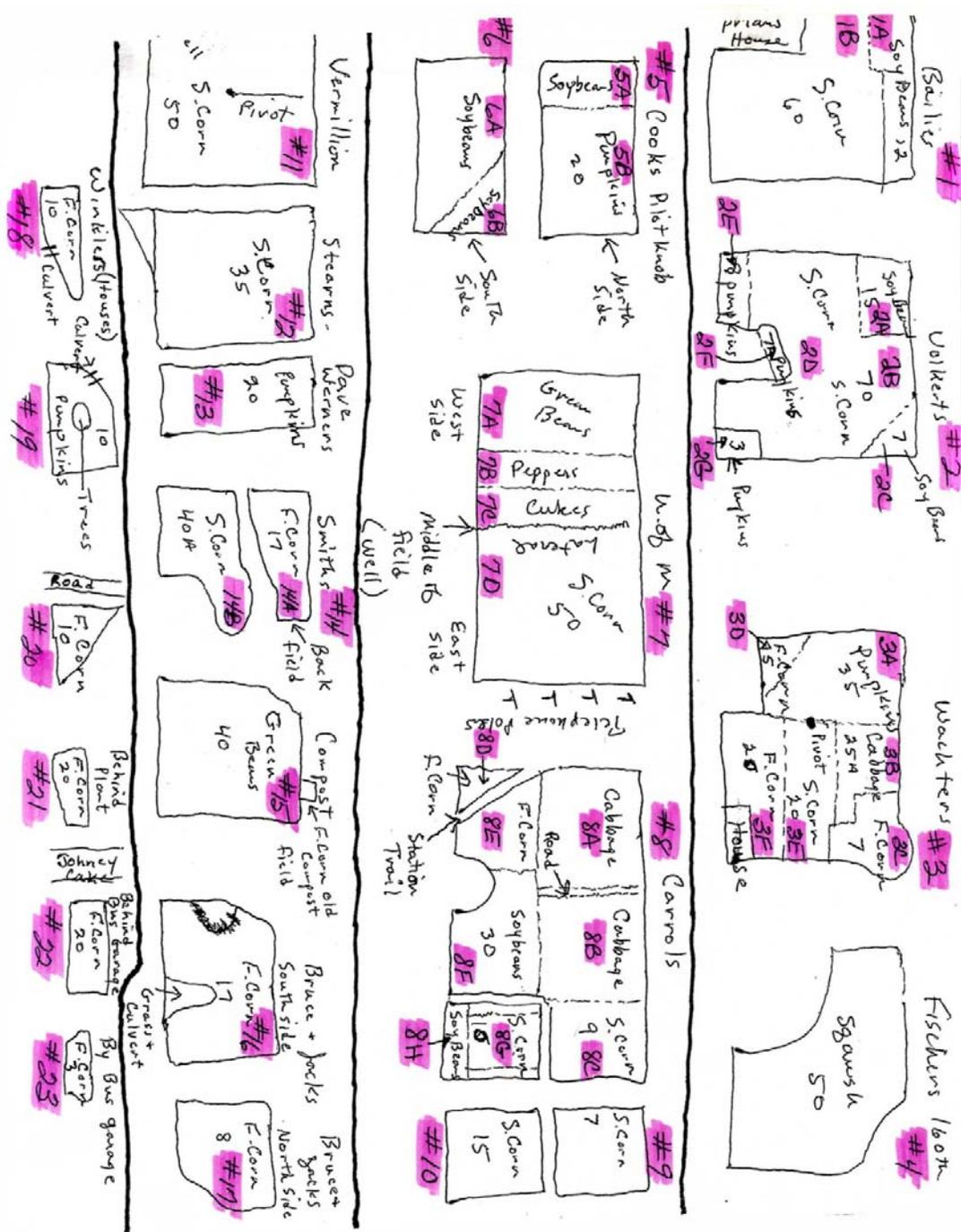
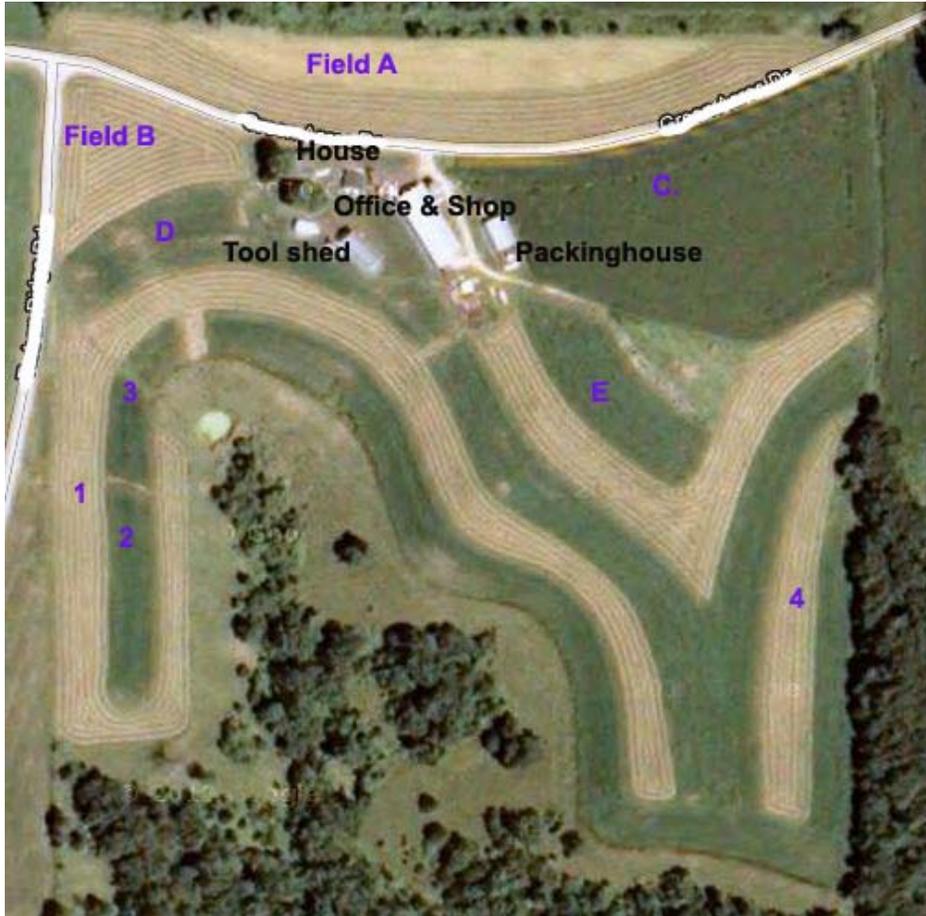


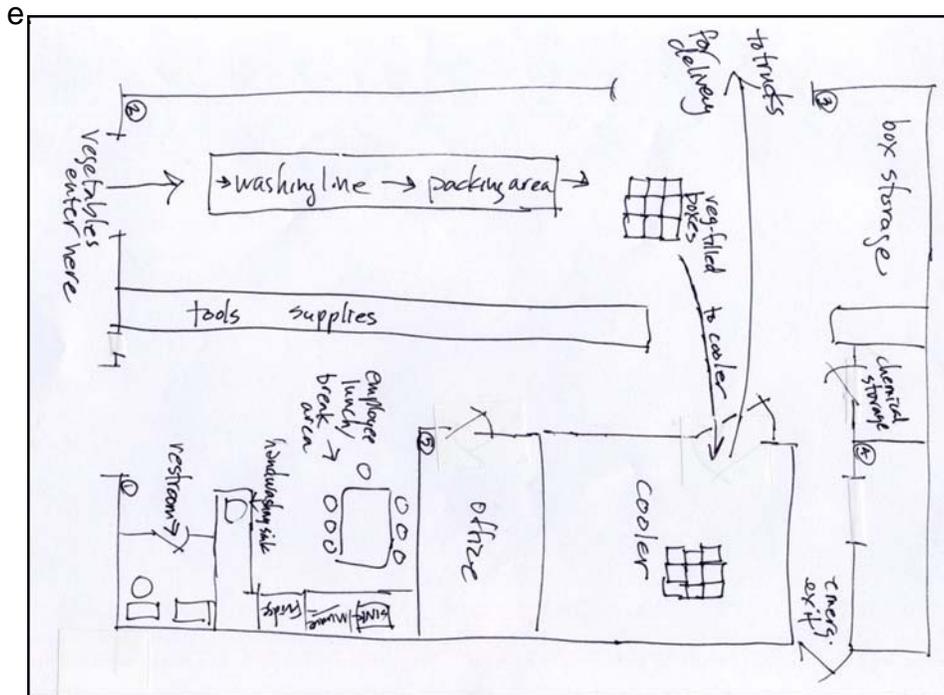
Figure 2. Property map. Google satellite view with building and field labels added.



- c. Building maps. Draw floor plans of buildings (e.g. office building/home, storage buildings/sheds, packing houses, machinery buildings).
  - i. Label each building and mark what is in it, such as power/water connections, fuse boxes, chemical storage areas, lunch areas, restrooms/sinks, etc. Like the maps, you don't have to be an artist or graphic designer to make floor plans.
- d. Draw a packing line/washing area flow diagram on the relevant map. Show where you box/bag produce from where field harvest

bins/trailers come in and where the finished product goes out before it leaves the farm. Include all coolers, storage areas, and break/rest areas. See Figure 3.

Figure 3. Simple map of packing area.



2. Training certificates for person(s) in charge of food safety and any employees who apply pesticides.
3. Emergency contact information sheet for key people such as the farm owner, farm manager, supervisors, attorney, insurance agent, etc.
4. Farm log sheets: Any records you are already keeping such as pest control records, worker health and safety documentation and training records, etc. If you don't have them, make a list of the records you will need to gather and use and adapt the template log sheets included here.
5. List of your water sources and practices and any water test results.
  - a. List all the water sources for irrigation, applying pesticides and fertilizers, and precooling and washing water (e.g. municipal source, well, stream names, ponds on farm, or NONE USED).

- b. For each water source, write down how the water is used (e.g. washing, rinsing, irrigation, chemical mixing, drinking). For irrigation, write down the type of irrigation methods used (e.g. drip, overhead, flood, NONE) in each field.
- c. If you use **municipal water**, get an annual report from the locality identifying the presence and levels of organisms.
- d. Farm **well water** should be tested twice each year and treated if fecal coliform bacteria are present.
- e. If the water source is from **surface water**, the water should be tested three times during the growing season—at planting, at peak use, and near harvest.
  - i. All tests must include fecal coliform counts and should be tested for E. coli with a count of the number of E. coli units, and not just its presence or absence.
- f. Water used to produce **ice** or for **cooling** must be potable in order to reduce the risk of food contamination.
  - i. If you purchase ice, get a copy of the water test from that location from the vendor. If you make ice using farm well water, it needs to be tested at least twice a year.

## **Standard Operating Procedure document**

Now that you've gathered together a stack of papers and maps, it's time to create your Standard Operating Procedure (SOP). Your SOP is part of your food safety program documentation.

A SOP is a where you write policies and procedures for practices done as part of the work of your farm. You might already have an employee manual that covers rules of the workplace and what emergency procedures. If so, you have a good start on your SOP already. Your SOP is where you describe in detail what your policies and procedures are, step-by-step.

If you are certified organic or starting your certification process, much of the USDA GAP documentation will be similar. You do not have to duplicate similar requirements; just keep your paperwork organized.

Delegate and document who is responsible for the overall food safety plan and who is sub-delegated and for what areas. Make sure the people you delegate are involved in this food safety planning process as well. The appendices of this document, the flash drive (if you have the fsp4u flash drive) and website <http://safety.cfans.umn.edu/FSP4U.html> include all the log sheets as Microsoft Word documents so that you can expand or adapt your Standard Operating Procedures as needed.

Start from the beginning and look through the template for the sections that are relevant to your operation. For example, if you don't have a storage cooler, you don't need to use the storage cooler SOP or storage cooler logs.

Remember, this manual is meant to help you get started on a food safety plan and it will help you be more prepared if you decide to have a USDA GAP audit on your produce.

This is a guide that you can adapt to your situation as needed. The following pages are suggested templates for training your employees and documenting your procedures.

## How to use the template

The template for your Standard Operating Procedures starts on the next page.

Put YOUR information where the words are red.

Change the red to black.

As you go through the template, delete boxes—like this one—which include instructions and background.

Make a cover page in the pocket cover of your binder or make it your first page.

This is YOUR farm food safety plan and YOUR procedures and policies.

# Standard Operating Procedures 2012

If you have a logo, put  
somewhere on the  
cover page.



---

Owner name(s)	Name, phone number
Farm manager	Name, phone number
Food Safety manager	Name, phone number

---

**Name of your farm**  
**Address**  
**City, State, Zip**  
**Phone number(s)**  
**Website**

## Farm name mission statement

If you didn't write one or don't have one, delete this section.

## Farm location and land management

**Instructions:** Write your farm description. Use the **sample** text (below) to help you get started. If you use this sample text, fill in the sections between the red brackets and change the type color to black. Delete all boxes when you are finished.

[Name of farm] is a [state type of] business operated by [Names and roles. Include contact person and person responsible for food safety plan, and phone numbers and email addresses]. The farm is located [main address, audit site, county, legal description/GPS/lat & long; location of other farms in addition to the main site]. Our [total] acre farm includes [crops grown, # trees, etc.]. Our farm also has [include other relevant descriptions as well] five acres in high tunnels for heirloom tomatoes and cucumbers and greens, and ten acres each for pumpkins and strawberries. In addition to work done by family members and our U-pick customers, we employ [how many workers, including seasonal], with peak employment [during which months or harvests]. The farm business includes [give examples] our home (with an office) and seven outbuildings: one small retail market building, two sheds for machinery and tools, one packing building, a chemical storage building, and two other buildings used for short term storage of harvested produce and supplies.

**Instructions:** Attach maps after your farm description. Include maps of the farm, the packing house maps showing flow of product, and floor plan of other areas, including storage areas, employee break areas, and restrooms. Include location of mouse/rodent traps on building floor plans.

## General Section

**Background:** Traceability means keeping track of what produce went where on what day. A traceability system can be developed from a system you already have in place. Traceability can be high-tech with bar codes and computers, but it does not need to be. The important part is to know what product went where on what day.

Key information contained in traceability procedures:

- **Names of workers who harvest and/or pack produce**
- **Field name**
- **Date of harvest**
- **Date of sale**
- **Where produce was sold**

Document the above information on your **Harvest/Traceability Log**. Use the map you created of your farm to reference field numbers.

### Traceability procedures

Our farm uses a traceability system that allows us to trace produce one step back (field) and one step forward (customer).

[DESCRIBE YOUR SYSTEM HERE, what you really do, example follows]

When selling cases to a buyer we attach a sticker on each box. Each box of produce packed has a sticker that identifies:

- Farm name
- Who packed the produce (name, crew number, or group)
- The field it came from
- The date it was harvested
- The date it was packed
- ID Code or **traceability code** or name of product in the box [show an example of the code you use]
- The date of shipment

**What is a traceability code?** The traceability code can be anything that you make up, as long as it allows you to trace your produce to its origin and you and your employees understand it. The code at its most simple is the name of the product, date of harvest, and field of harvest. You can use Julian date if you wish.

An example might be: Co22213 (in this example, the code means Corn, picked on the 222<sup>nd</sup> day of the year from field 13.)

Include the code on your invoices to your customers and on each box.

**Wholesale mock recall.** To test our recall plan, we conduct a mock recall once a year, usually in [say which month]. In the mock recall, we contact one of our buyers and ask them to identify a shipment received from us. We ask how much of the product has been sold and how much they still have in inventory. This information is recorded on our **Mock Recall Log** and kept on file.

## Company health and hygiene policy

**Training.** All employees receive training when they start work on the farm and a refresher course at least once a year. Employees include those that work on the farm that plant, care for, harvest, scout pests, process, and pack fresh produce. Family workers are required to have the training too.

Training includes instruction on all company policies related to worker health and hygiene and (where appropriate) specialized training related to specific jobs as required by law (for example, pesticide applicator license or training).

Employee training is documented on the **Employee Training Log**. Documentation of training includes employee's printed name and signature, description of training, written materials or video/DVD, date, and name of person doing the training.

Training is provided in the language of the employees.

**Advice from a grower:** You may already have an employee manual for your farm, or do Worker Protection Standard (WPS) trainings. Some training may overlap and you may be able to use the same documentation and training.

Training materials or outlines can be included in an appendix. *Proper Hand Washing Technique* is attached as **Appendix B** in the back of this template as an example.

## Visitor health and hygiene policy

**Instructions:** Develop a short company visitor policy. Post your farm rules and visitor policy at the entrance to the field so customers are aware of your expectations. For Pick-Your-Own operations, or CSA farms with member-visitors, you may want your policy to include location of toilet and hand washing facilities, whether or not you allow personal containers in the field, safety of children, a no-glass policy, and a pet policy.

All visitors will sign in at the farm and read a copy of farm policies regarding health and hygiene. Visitors are defined as [for example, anyone on the farm for more than 15 minutes to conduct farm related business, anyone who goes in plant production or packing areas].

Visitors will wash their hands when entering the farm. They will wear hair protection in the form of a hat or hair net when in the packing house. Visitors are not allowed to pick produce or handle product without the permission of [the farm manager, owner]. All visitors will sign in when arriving and sign out before leaving.

## Handwashing and toilet facilities

Clean and well-maintained toilet and handwashing facilities are provided for all employees and customers. All toilet/restroom facilities are properly supplied with single-use towels. These facilities are checked on a [e.g. daily/every other day/ weekly] basis. Restroom facilities are serviced and cleaned [write down how often—daily, weekly, on Tuesdays and Fridays, every other Wednesday. It's YOUR schedule—decide how often you will do it, and then make sure to do it that often]. Monitoring, restocking, and cleaning are documented on the **Restroom Cleaning Logs** and are located [say where you keep the log sheets].

**Handwashing.** Everyone must wash their hands before beginning work and returning to work after taking breaks, going to the restroom, eating, smoking, or whenever their hands are dirty. Signs in English and [list native languages of the employees and have signs in those languages] are posted in restrooms, eating areas, and smoking areas to instruct employees to wash their hands before beginning and returning to work.

**Advice from a grower:** You don't need a fancy purchased sign. Find a hand-washing picture on Google images, then use Google Translate to write the text in almost any language you need. Put them together on a piece of paper and you have a sign.

Sample handwashing reminder in English: Everyone must wash their hands before starting work or when returning to work after breaks; and after going to the toilet, eating, or smoking; or anytime when your hands are dirty.

Handwashing translated to Ukrainian: Всі повинні мити руки перед початком роботи або при поверненні на роботу після перерв, і після відвідин туалету, їжі або куріння, або в будь-який час, коли ваші руки брудні.

**Toilets.** Currently, the ratio of employees to toilets is [how many employees: how many available toilets]. The field toilets are located [write down in words where they are and mark them on your maps] away from the growing fields to avoid contamination by fecal material. Flush toilets and sinks located on the

farm are on a [state type of sewage system such a private septic system or municipal sewage line] and are located [say where they are].

**Instructions:** If you have a lot of farm employees and must meet OSHA requirements, be sure you have the correct number of toilets to meet the federal requirements (currently 20 employees to 1 toilet).

Indoor toilets can be used in small operations if they are within ¼ mile walking distance from fields or if transportation is readily provided. Restrooms in gas stations or convenience stores can't be used as your restroom.

## **Injury and Illness Policies**

**Injuries.** If someone is injured at the farm, either in the packinghouse or in the field, the first aid kits are available for use in/at [write down the locations of the first aid kits]. The supplies are checked and updated [YOU decide and stick to it, e.g. MONTHLY, WEEKLY]. History of refilling first aid kits are kept in the **First Aid Kit log.**

All workers are instructed during training to deal with injuries immediately. This includes any cuts, abrasions, or other injury that happens while working. Employees must notify the farm manager or their supervisor and fill out an accident report. If the injury is critical or life threatening, employees are instructed to call 911 for proper care.

**Blood and body fluid.** If blood or other bodily fluid should come in contact with produce or in the field, immediate action must be taken.

If a person is not able to immediately deal with the contamination due to injury, that person must mark the area if able and immediately notify the farm manager or his/her supervisor who will take appropriate action.

If an employee is injured in the field or packinghouse, the farm manager or supervisor--after assuring the employee's safety--will immediately inspect the area where the injury happened to make sure no blood or bodily fluids have contaminated the area.

**Advice from a grower:** Go into great detail for this section. If you have a packing line and an injury, describe your procedure in detail. If a person vomits or bleeds on the line, just saying you are going to clean it up is not an actual procedure.

If there is blood in the field, all contaminated surfaces will be removed to a plastic bag with a shovel or gloved hands and placed in a trash can. All affected soil will be shoveled up around and under the area and will be removed. All affected produce will be discarded [say where] as well as any packing materials.

All actions will be documented on the **Illness and Injury Form.**

**Illness.** Any employee who is sick should notify the farm manager or his/her supervisor immediately and must not handle fresh produce. If an employee does not report his or her illness and is found to be sick by the farm manager or supervisor, the employee will be immediately dismissed from work and not allowed to return until they are symptom free.

- 1) The following symptoms prohibit an employee from working and handling fresh produce.
  - Diarrhea
  - Fever
  - Vomiting
  - Jaundice (when the whites of the eyes are yellowish and the skin has a yellowish tinge)
  - Sore throat with fever
  - Lesions containing pus (including boils or infected wounds, however small) on the hand, wrist, or any exposed body part
- 2) If an employee has any of the conditions listed above, these conditions will be recorded on the **Illness and Injury Form**.

## **Drinking water policy**

Potable drinking water is provided and available for employees in the packinghouse and in the field. All employees are notified of this policy during training and instructed to notify their supervisors if water is not available or if disposable cups are not available. *No glass is allowed.*

## **Safety during application of chemicals**

Only licensed individuals may apply regulated substances including plant protective sprays. Non-regulated chemicals may only be applied by trained individuals. [List trained people, license numbers, and expiration dates here OR list company that does contract spraying. Attach copy of up-to-date licenses to your SOP.]

## **Employee Food Safety and Security Empowerment**

All employees are instructed to share information they observe regarding food safety and security. If employees see unusual individuals or situations, they should notify their supervisors so they can evaluate the situation. If employees notice pests or other food safety issues, they are encouraged to share this information with their supervisors. Our company food safety policy includes all employees and is companywide.

## **Clothing, Jewelry, and Cell Phone Policy**

Employees will wear clean clothing to work every day.

No jewelry is permitted in the field, around machinery, packinghouse, or packing facility with the exception of a plain wedding band (no stones allowed) and wrist watches.

Cell phones are not allowed unless they are required for farm business. All cell phones will be stored in lockers or kept in a belt holster or pants pocket.

**Instructions:** You decide your jewelry policy and cell phone policy. Whatever you decide, people have to follow that policy. Some growers prohibit any jewelry worn above the waist (no earrings, watches, necklaces). Make the policy fit your operation, and make it make sense to you and your employees. Remember to stick to your policy.

## Policy on Taking Breaks

Breaks that include eating or smoking must be taken in areas away from fresh produce production and packing. In the packinghouse, there are designated break areas which are [write it down in words and mark the areas on the building and field maps].

Breaks in the field are taken in areas not in production or near harvestable crops [note designated areas on map]. Short rest breaks are permitted in the field during production as long as workers are not eating or smoking. Lunch breaks in the field can be taken on headlands, in cars which are parked outside of harvest and production areas, or in the windbreak where with a picnic table in the shade, a portable handwashing station and potable water.

All personal items must be stored in designated areas [specify in detail] in the field, break room, and packinghouse. Under no circumstances will glass containers be allowed in the field or packinghouse.

**Important:** DO NOT say “Breaks are taken in the designated area.”  
Where ever you decide people will take breaks, specify it in words in your policy and make sure that’s where employees take their breaks. You do not have to build a new building for breaks.

**Congratulations!** You have completed the General Section of the Template.  
Remember to change all the red sections where you supplied information to black.  
Remember to **delete** all the boxes, like this one.

## Part 1. Farm Review

### Water Quality Assessment

Our water comes from [say where, pond, stream, well, municipal]. Our crops are irrigated by [say what kind type of irrigation method you use, such as overhead, drip, microjet].

We test water used for irrigation, rinsing produce and mixing of topical sprays [how many] times per year for nitrites, nitrates and total bacteria and these records are kept on file [say where]. If any water test is outside our normal range, we do an observational review of the water source area to see if there are any obvious problems or situations that can be mitigated. We then take recommended actions to mitigate contamination and retest water as needed. All observational reviews are documented and any mitigation actions are documented in our **Water Source Testing Log**.

See **Appendix C** for more information on frequency of testing, what to tests to get, and how to take a water sample.

## Animals/Wildlife/Livestock and Manure Lagoons

**Instructions:** This part can get a bit tricky for some people. The goal is to document what you are doing to keep animals and fresh manure out of your fields. Animals can spread disease that can make people sick. It is important to make your best effort to keep animals out of your fields, but you are not required to erect large fences or take other drastic measures. Just do your best to ensure there are not LARGE numbers of animals or birds in your field, and document these efforts.

[Option A:] We do not have livestock or manure lagoons. Our production areas are not located near or adjacent to dairy, livestock, or fowl production facilities or manure lagoons.

[Option B:] A [dairy/livestock/ fowl production facility/manure lagoon] is adjacent to [say which field and have it marked on your farm map]. There is a [natural or physical] barrier between the [manure pond/facility] which can be observed. This barrier is a [road, highway, hill, row of trees, grass strip xx yards wide, hay field or whatever it is].

**Remember:** This doesn't mean you can't have a cow pasture. A feedlot with manure and dirt is not allowed next to your production fields. You can have pastures to next to production fields. If livestock are grazed nearby, provide filter strips or buffer areas to separate livestock areas from production areas in case there is a washout from rain or flood. Look at your land and drainage patterns and adjust cropping strategies accordingly.

A common manure issue in Minnesota is turkey manure. Turkey manure is often stored on the headlands before next year's use. If it's stored on the headland of your field it needs to be trenched and covered. An auditor will look at the land to see if there is vegetation, a ditch, or trees between your field and the manure.

**[For some growers]** We use [oxen/mules/horses] in our fields for plowing and cultivation. Working animals are not allowed in the fields 120 days before harvest and must stay on the headlands or field roads. Waste from working animals is picked up with a shovel as soon as possible and put into a covered bucket which is then taken to [say where you take it, to the pasture manure pile, or wherever it would go]

[Fencing or whatever you use] is used to restrict livestock from on-farm ponds and other sources of irrigation water, including areas around the well head. Livestock animals are not allowed in or near sources of irrigation water.



**Fence and Field inspections.** Crop production areas are monitored for presence and signs of wild and domestic animals entering the production areas.

[Write how often] we do a field perimeter check to look for animal tracks and pathways, animal resting areas, or other signs of animals in the fields. We record what we see on our inspection on the **Fence Perimeter and Field Inspection Log**, and any actions taken.

Inspecting the fences and fields will include the following:

- ▶ Walking the fence line observing any places where the fence may be compromised or in need of repair. All repairs are noted in the **Fence Perimeter and Field Inspection Log** .
- ▶ Making sure there are no weaknesses or places where animals are clearly entering and exiting the fields.
- ▶ Visually inspecting the fields from the outside to see if there are any noticeable signs of animal presence. If animal presence is noted, affected sections of the field will be noted and not be harvested.

This is an example.  
Write down what will be done during your inspections. If you don't have a fence don't talk about fence inspections, delete that part. Only write about what you are going to look for and actually do.

Employees are instructed to notify the farm manager if during their normal farming activities they notice signs of animals passing through or feeding in the production areas. These activities are noted in the **Fence Perimeter and Field Inspection Log**.

If you don't have a fence, change the name of the log to **Field Inspection Log**.

**Wildlife.** Our primary wildlife problem comes from [name which animals, and if they vary by time of year note that as well]. Wildlife activity is monitored and deterred through [state methods used to exclude wildlife from fields or deter their presence, for example: “Geese are deterred from ponds using swan decoys and water cannons. To reduce nesting, we mow down tall grass around ponds.” “We use soybean planting barriers between deer habitat and the production field.” “We plant leeks, garlic, and other plants that deer don’t like between the outside area and the production area.” “We use sound machines and VCR tape strung between posts to shake in the wind to scare deer.”]

If animal feces or remains are found in production areas we mark a 5\* foot area around the feces or remains and harvest outside of the perimeter.

**Note:** \*The area will vary by crop. Consider animal feces to be fresh manure and follow the 120 day no-harvest rule. Remember to use common sense. Deer manure in the apple orchard is a lower risk than cow manure in the lettuce patch.

## Manure and Municipal Biosolids

[Option A: You use raw manure on your production fields during the growing season.] When raw manure is applied, it is incorporated at least 2 weeks before planting or at least 120 days before harvest and documented on the **Manure Application Log**.

**Important:** If you are getting a USDA GAP audit, the auditor is auditing your farm for the current growing year. Fall apply of manure is not a problem because you did it last year.

Uncomposted raw manure is applied AT LEAST 120 days before harvest and applications are documented in the **Manure Application Log**. All manure is stored in away from crop production areas [say where, mark the location on your maps].

Some buyers and marketing agreements have a requirement far beyond the 120 day time frame. If you voluntarily sign up for the marketing agreements, you **MUST** follow their parameters.

[Option B: You use treated or composted manure]. When we purchase treated or composted manure or treated biosolids. We purchase it from [write down name of company you get it from] and we keep the manure test results and certificate of their process, and documentation of analysis reports (for biosolids) in our files for two years.

Sometimes we use composted manure [on which fields, and when]. Our manure composting policy is [say what you do to compost manure step-by-step, in excruciating detail, how you maintain the temperature for over 131 degrees for 14 days, and how often and how you mix turn and mix the pile, where you keep the compost pile]. We keep a **Compost Turning and Temp Log** to document those procedures.

Sometimes we used aged manure and apply it in the fall after harvest [or whenever you do, and say on which fields].

Compost piles are covered to reduce the chance of runoff, leaching, wind spread, or recontamination.

[Option C: We do not use any animal manure or municipal biosolids on our farm.]

## Soil Assessment

**Instructions:** Write a statement of previous land use history here and a risk assessment. Write a general description of the farm and adjacent land. Write down what is on adjacent land and say if it's a risk or not. If you have significant wild animal issues, write that down and address the management of them such as nuisance permits, fencing, annoying cannons, or other deterrents.

Our crop production land has been farm land for [# of years]. There are no concerns about previous land use related to microbial contamination of crops. There [are / are not] [any / how many] feedlots, municipal water treatment facilities, adjacent to our property representing [no risk, or list the risks]. Crop land is not susceptible to flooding. [If there are concerns about previous land use or land is susceptible to flooding, put it here].

The history of this farm as a [type of farm] necessitated the following preventative measures [list them; basically that you aren't farming on the bits of land that were homesteads, chemical dumps, former meth labs, and that you have identified the area and what you did about it – fenced it off, don't grow over it].

### Field Traceability

Production areas are identified by [NAME or CODE]. See the farm map.

Congratulations! You have completed Part 1: Farm Review section of the Template. Remember to change all the red sections where you supplied information to black. Remember to **delete** all the boxes, like this one.

## Part 2. Field Harvest and Field Packing Activities

### Pre-harvest risk assessment statement

We have conducted a pre-harvest risk assessment of our fields. We have checked the fields and [have or have not] noticed signs of dumping, flooding, garbage, unusual or excessive human or animal presence. [If you noticed something, write it out in detail what you did about it].

## Field Sanitation and Hygiene

As stated in the General section, if you have many farm employees and must meet OSHA requirements, be sure you have the correct number of toilets to meet the federal requirements. Indoor toilets can be used in small operations if within ¼ mile walking distance from fields or if transportation is readily provided.

Currently, the ratio of workers to toilets is [how many workers: how many available toilets]. Field toilets are located [write down in words where they are and mark them on your maps] away from the growing fields to avoid contamination by fecal material and are directly accessible for serving.

Flush toilets and sinks located on the farm are on a [state type of sewage system such a private septic system or municipal sewage line], and located [how far away, and is transportation provided if more than ¼ mile. Remember, gas station or convenience store restrooms don't count as your employee restroom].

Field sanitation units are cleaned regularly and serviced by [state self or name of company]. All cleaning and servicing records are kept in the **Field Sanitation Unit Service Log**.

Cleaning and servicing of the unit can be contracted with a sanitation unit rental company. If so, they will provide documentation of cleaning and the schedule.

## **Policy and Procedure for Handling a Septic or Sanitation Hazard in the Field**

Sanitation facilities that have been tipped over or are in any way not available for use will be noted immediately and dealt with in a manner that minimizes the risk of contaminating the produce. In the case of a sanitation unit spilling or any other septic leakage occurring in or near field boundaries, the following clean-up steps will be performed:

1. Any affected produce is immediately disposed of in a covered waste bin.
2. The contaminated area will be marked off with caution tape or string.
3. Signs in appropriate languages will be posted at the perimeter prohibiting entry to the contaminated area.
4. People and animals will be kept out until the area is sufficiently decontaminated.
5. Any solid waste still resting on the surface will be collected, shoveled up, and removed to the waste bin.
6. Any affected permanent structures will be hosed off and disinfected with a dilute bleach solution.
7. The sanitation unit will be cleaned up and replaced by the company providing the units and maintenance services.
8. The spillage event and corrective actions will be written down in the **Field Sanitation Unit Service Log** and kept in your records.

## Field Harvesting and Transportation

All objects that come into contact with produce must be clean, in good working condition, and cleaned and/or sanitized on a scheduled basis. This includes, for example, hands, harvesting equipment (knives, pruners, etc); harvesting [containers, totes, boxes, bins] transportation equipment; bulk hauling vehicles; processing equipment (tables, cooling tubs); and storage equipment.

**Water.** Water used during harvest is microbially safe. Water test results are kept [say where].

**Harvesting Tools.** Any tool used for harvesting produce, such as a knife or scissors, will be cleaned and/or disinfected daily. If this is not done, that tool may not be used for harvesting. Cleaning history is kept on file in the **Harvest Tool and Container Cleaning Log**. [Remember, don't write anything down that you won't or can't do].

**Harvesting totes/containers.** The harvest containers are kept in good repair and damaged ones are immediately discarded or repaired. Harvesting [write your container type] will be cleaned and disinfected before each harvest season and whenever needed. Each [write your container type] is numbered and individually identified and its cleaning history is kept on file in the **Container Cleaning Log**.

[Write your container type] not in use will be stored in a clean and secure location [say where that is exactly].

**Vehicles in the production areas.** Vehicles are allowed only on the roadways and headlands. All vehicles will be inspected for the following prior to entering the fields:

- interior and exterior cleanliness
- no broken or cracked plastic or glass windows, fixtures, covers, or other parts
- no dripping oil, anti-freeze, or other fluid, petroleum product, or automotive lubricant
- If you are going to be moving produce with a passenger vehicle, there must be no contamination hazards present including food, pet hair, or other items that could compromise the produce. Inspect vehicle before loading produce.

Vehicle inspection and cleaning records will be kept on the **Vehicle Cleaning and Inspection Log**.

**Harvesting machinery.** Harvesting machinery and equipment is inspected before harvest and is in good repair. Mechanical harvesting equipment is inspected [between

loads, every two hours] during harvest as well and any foreign objects such as rocks, glass, metal, or other items are removed. Light bulbs on harvesting equipment are shatter proof or are shielded with shatter proof sleeves or covers.

**Broken glass policy.** If broken glass or plastic is found, or is glass is broken on machinery during harvest, the machinery is stopped, and the area inspected and all shards are picked up, placed in a [cardboard box, sealed, and placed in a secure trash can/ plastic bucket with a secure lid etc]. The area is further inspected and the machinery is checked for any other shards and they are disposed of as well. Depending on the source of breakage, size of breakage, the area may be marked off-limits for harvest with tape in a circumference of [number] feet around the original breakage.

**Gas and Petroleum Spills or Leaks Policy.** Petroleum products of any kind may not be stored or used within the perimeter of the farm fields unless there is a specific permanent structure built there for storing such fluids. If no such building exists, petroleum products must be kept in the machine shed. All refueling must take place away from produce fields to minimize the risk of petroleum contamination to the fields or produce.

If gas or oil is spilled in the field, immediate attention will be taken to stop the spill by turning off valves or plugging the source of the leak. If the source is a tank or any other kind of container and it is punctured, a wooden plug or a bolt will be used to prevent further leaking.

After stopping the spill, the contaminated soil will be removed from the ground and contained in a bucket, pail, or other non-permeable container. All soil that has visible oil stains or petroleum odor will be dug out and contained. The contaminated soil will be treated [say how].

Detailed instructions on treating contaminated soil can be found in the appendix section and at the MN Pollution Control website, <http://www.pca.mn.us>.

After the cleaning process is finished, the employee must submit a report of the incident describing what was spilled and the amount, how the spill was cleaned, and the steps that will be taken to prevent future spills. Illustrations or diagrams should be included to show the contaminated area, the excavation of the soil, and the kind of waste that was created.

**Harvest Container Use Policy.** *Harvesting [write what you use, e.g. containers, totes, boxes, bins] will not be used for carrying anything but produce.* If something other than produce is placed in a harvesting tote, that tote must be cleaned or disinfected.

Before to moving produce from the field, excessive dirt and mud will be removed from [write your container name] and pallets as much as possible

The farm carts used to move produce from the field to the packing house [if you use a bean wagon, change “farm cart” to “bean wagon.” Use your own terms.] are clean and in good repair. The farm cart used for carrying cases of produce out of the field will be cleaned [weekly, daily, monthly, or whatever you set up as your schedule] or more often as needed. This cleaning and inspection will be recorded in a **Farm Cart Maintenance Log.**

It is our **policy** that any product that is being moved from the field to the processing and storage house will be covered.

All containers used for field packing are new, single use cardboard containers, or sanitized plastic containers. A [**Container Cleaning Log, or invoice from container company**] is [maintained, or kept on file, depending on what you are using]. Cardboard containers are covered and stored [say where you are storing them].

**Harvest Traceability.** All containers of harvested produce leaving the field are labeled with unique identifiers and are logged on our **Harvest/Traceability Log.**

### Part 3. Packing House Facility

The Packing and Storage House will be accessed by authorized personnel only.

Before being packed, the produce is stored [where] and protected from contamination during the staging period by [write down how product is protected].

Wa:  
The

Congratulations! You have completed Part 2: Field Harvest and Field Packing section of the Template. Remember to change all the red sections where you supplied information to black. Remember to **delete** all the boxes, like this one.

fruits and vegetables is potable. Municipal water tests are obtained yearly, and farm wells are tested twice yearly and kept with the **Water Source Testing Log**. We do not use surface water from ponds, lakes, streams, ditches, or canals in the packinghouse. Backflow devices are installed to prevent contamination of clean water. Water test records are [attached or filed where].

See **Appendix C** for instructions on taking an accurate water sample from your farm's water source.

The temperature of the water in [dump tanks, flumes, wash tanks, sinks, basins etc.] is monitored [hourly] [automatically or with a standard thermometer]. The water temperature is not more than 10 degrees Fahrenheit cooler than the produce.

**Instructions:** Use a thermometer to test pulp/core temperatures for accurate temperatures when washing produce in the “dunk tank” fashion. Tomatoes, netted melon, and apples are prone to absorbing water in the stem end or through blemishes when submerged in water that is colder than the pulp temp. Sorting produce before washing is a good idea so you can inspect cuts, blemishes, or signs of wildlife damage that can make your produce more susceptible to water infiltration. See **Appendix D** for instructions on calibrating your thermometer.

Dump tank water is changed [insert how often here] and water sanitizer [say what the sanitizer product is] levels are maintained at [insert levels here] and documented on the **Water Sanitizer Log**.

Food contact surfaces, dump tanks, flumes, and wash basins are kept in good condition and cleaned and sanitized before use each day and as needed and documented on the **Packinghouse and Washing Line Cleaning Log**.

Product flow zones are protected from sources of contamination. [describe how it's protected].

**Remember:** Assess your risks and work to reduce the risks. If you have a roof with rafters, you will need to keep birds from roosting in the rafters by using nets, predator decoys, or other methods. If flies are an issue, use fans to keep them away. If you pack under a tent or other temporary permanent structure, keep the area clear and control dust and dry dirt from blowing. If your open air packing is under a tree, you need prevent birds from dropping their droppings on your produce.

**Ice Management.** Ice making machines are sanitized on a regular schedule [Say what the schedule is] and documented on the **Ice Machine Cleaning Log**. When purchased, the supplier will supply a copy of the sanitization log and water quality tests for ice production. This documentation is kept with our water logs. All ice hauled to a separate location is transported in a closed truck or in covered bins. No ice will be transported in wood containers.

**Food Grade Lubricants.** Only food grade lubricants are used on packing and other equipment that comes in contact with produce. We commonly use [say what you use] and the MSDS is kept on file and posted in the packinghouse.

## Packing House Worker Health and Hygiene Policy

Employees will wear clean clothing to work every day.

When required, employees will wear appropriate supplied clothing including hats, hairnets, aprons, and disposable gloves.

No jewelry is allowed in the packinghouse, or packing facility with the exception of a plain wedding band (no stones allowed).

You decide your jewelry policy. Whatever you decide, people have to follow that policy. Some growers prohibit any jewelry worn above the waist (no earrings, watches, necklaces). Make the policy fit your operation, and make it make sense to you and your employees. Remember to stick to your policy.

Employee areas including lunch and break areas are located [say where, note areas on map, can't be in the packing area] and are kept clean. Under no circumstances will glass containers be allowed in the packinghouse.

## **Packinghouse general housekeeping**

Only food-grade cleaners may be used in cleaning either the processing surfaces or the storage cooler. Sanitation chemicals have their own storage area separate from the processing line, and are marked on the building map.

Areas outside the packinghouse are well-maintained [say how, well-mowed or gravel]. They are free of debris that could harbor pests and free of standing water. Garbage cans/dumpsters are covered and located away from packinghouse entrances.

The packing and storage facilities will be clean and orderly before and after use. Light bulbs are protected from breakage by either being in sleeves, covered, or be made of shatterproof material. Pipes, ducts, fans and ceilings are kept clean. At the end of each day, packing areas are dry swept. The washing, grading, sorting, and packing lines are cleaned and sanitized as well. A thorough cleaning, including floor drains, will happen on a weekly basis or as needed and this will be recorded on the **Packinghouse and Washing Line Cleaning Log**.

**Glass.** No glass containers are allowed in packing house. All light bulbs are shatter proof or are shielded with shatter proof sleeves or covers.

## **Policy for produce that hits the floor**

If produce falls or is dropped to the floor it may not be picked up and put back on the packing line. And dropped produce should remain on the floor. Produce will be cleaned from the floor regularly. Produce will be swept or pushed away from the packing line and shoveled into the clearly marked vegetable waste bins. Employees will wash their hands before returning to the packing line. The produce in the waste bin will be emptied at the end of the day, or sooner, and taken to [e.g. the compost pile, disposed of in the dumpster].

**Packing Containers.** All containers used for packing are new or sanitized containers. Records of cleaning are kept on the **Harvest Tool and Container Cleaning Log** [or invoice from container company] and [maintained, or kept on file, depending on what you are using]. Packing containers are covered and stored [say where you are storing them]. Pallets and containers are kept in good condition; if broken they are disposed.

## Rodent and Pest Control

Farm buildings, packinghouses, and storage areas are inevitably subject to animal and pest infiltration. You must do your best to keep pest problems under control. Special attention will be paid to the processing and storage facility due to the permeability of the structure. If this permeability becomes a pest problem, a plan to deal with the cracks and holes will be developed at that time.

Traps are placed throughout the operation and their location is identified on a map. Traps are checked daily and records are kept of the daily checks as well as any pests that are found in the traps on the **Pest Control log**. We NEVER use bait inside the packinghouse.

All walls, doors, and windows are inspected. All windows are screened. Any holes are repaired to prevent pest and/or bird entrance into the buildings. Employees are trained to report any signs of infestation in the field or processing and storage areas.

If we hire an exterminator or pest control company, they will monitor the buildings on a [say how often] basis. All traps will be checked and documented [say how often] by the farm manager. A service report from pest control company will be provided or updated [say how often]. If a change in conditions develops, the monitoring company will be contacted immediately.)

## Part 4. Storage and Transportation

### Storage area housekeeping

Storage areas are kept clean and tidy. The general housekeeping policy for the storage area general housekeeping is the same as for the packinghouse areas, as is the pest and rodent control program

### Storage Coolers

Storage cooler temperatures will be checked and logged [how many] time(s) per day. Problems will be addressed immediately. Multiple thermometers are used to assure correct temperatures.

Before using coolers for season, we check for holes, cracks, or any other openings that rodents or insects could use to get in the cooler.

The cooler will also be cleaned on a monthly basis or sooner if needed. This cleaning will be recorded in the **Storage Cooler Cleaning Log** and kept on file for one year.

### Vehicles for Produce Transportation to Market

All delivery trucks and vehicles used to transport produce to market are inspected for odors and signs of unsanitary conditions before loading. If a vehicle is found to be unsanitary, it will be cleaned and sanitized before produce is loaded. All records of inspections and cleaning will be kept on the **Delivery Vehicle Cleaning and Inspection Log**. All shipments will be documented on the **Transportation Log**.

Equipment used to carry animal products or other potentially hazardous items including carcasses, manure, or pesticides will not be used. Any contracted truck operators will be asked to state the last load that was hauled in the vehicle and provide a cleaning schedule and temperature log for the vehicle before loading, as well as a log of previous loads.

Invoices and shipment manifests will be kept on file for the period of one year. Proper transport temperatures will be maintained and printed on manifests to ensure the quality and safety of the product. Produce will be loaded carefully so that risk of damage will be

minimized. Only employees who are trained in loading produce out of the storage cooler and onto trucks will be allowed to do so.

## **Appendix A**

### **Log Sheets**

1. Cooler Temperature Log
2. Compost Time/Temp Log
3. Delivery Vehicle Inspection and Cleaning Log
4. Employee Training Log
5. Farm Cart Maintenance Log
6. Fence Perimeter & Field Inspection Log
7. Field Sanitation Unit Service/Cleaning Log
8. First Aid Kit Log
9. Harvest Records/Traceability Log
10. Harvest Tool and Container Cleaning Log
11. Ice Machine Cleaning Log (*adapt the Storage Cooler Cleaning Log*)
12. Illness and Injury Report Form
13. Manure Application Log
14. Mock Recall Log
15. Morning Checklist
16. Packinghouse and Washing Line Cleaning Log
17. Pest and Rodent Control Log
18. Restroom Cleaning Log
19. Storage Cooler Cleaning Log
20. Thermometer Calibration Log
21. Transportation Log
22. Water Source Testing Log
23. Water Sanitizer Log

## Appendix B

### Proper Hand Washing Technique

All employees handling produce for processing or sale will use proper hand-washing techniques before beginning work and after returning to work after taking breaks, going to the restroom, eating, smoking, or any other time their hands are dirty.

Proper hand-washing technique includes the following:

- ✓ Wet hands with clean water (warm is preferred if available), apply **soap**, and work up a lather.
  - Auditor will look for SOAP. Hand sanitizer doesn't count.
- ✓ Rub hands together for at least 20 seconds.
- ✓ Clean under the nails and between the fingers.
- ✓ Rub fingertips of each hand in suds on palm of opposite hand.
- ✓ Rinse under clean, running water.
- ✓ Dry hands with a single-use towel.
  - Auditor will look for single use towels.\*

Remember to wash hands after touching any potentially unsanitary surface and after using the toilet; touching your face, hair or body; and before and after eating. When possible, turn off the faucet with the single-use towel instead of directly with your hand when using a sink and faucet that is not automatic or knee operated.

Do NOT use a paper towel more than once or share towels with others.

*Note:* A video from the National GAPs Program is available in English, Spanish, and Hmong, and should be used as a training resource when first introducing employees to proper safe food handling methods. The video is titled *Fruits, Vegetables, and Food Safety: Health and Hygiene on the Farm*. Available from <http://www.gaps.cornell.edu/>

\*For smaller farms that don't have a separate dedicated restroom for employees and don't want to install a single use dispenser in their home bathroom, you can put a stack of small hand towels or clean wash cloths in the bathroom for single use. After use, employees will throw them into a waste container or small laundry basket that you have put there for this purpose.

## Appendix C

### Water Testing Procedures

There is not a national irrigation water standard which sets minimum microbial levels allowable for irrigation water. You are taking water samples to establish a baseline and monitor for changes.

There are some commodity specific guidelines which give recommendations for water quality and can be used as a reference source for determining thresholds. If you are a member of a commodity group, please refer to their guidelines.

All irrigation water and water used to mix topical, pesticide, or protective sprays should be tested for generic *E.coli*, nitrates, and nitrites and the tests should be quantified. Depending on the source and the use, the frequency of testing will vary.

For post-harvest water, water must meet the US EPA Drinking Water Standard.  
<http://water.epa.gov/drink/>

Total Coliforms (including fecal coliform and *E. coli*) maximum contaminant level goal (mclg) 0 (mg/l)<sup>2</sup>. Coliforms are naturally present in the environment. Fecal coliforms and *E. coli* come from human and animal fecal waste.

Nitrates mclg 10 (mg/l)<sup>2</sup>. Sources include runoff from fertilizer use, leaking septic tanks, or sewage.

Nitrites mclg 1 (mg/l)<sup>2</sup>. Sources same as above.

**Frequency.** From municipal sources, obtain a copy of test results at least yearly from your county/municipality and keep it in your files. If you use well water, test at least, once per year during the growing season and more often if you are using well water for washing or rinsing produce or using it for spraying. If you are using surface water, test at least 3 times per year during the growing season. Recommended sampling times include at planting, second at peak use time, and third at or near harvest. Wash and rinse water MUST be potable.

**How to take a water sample.** Contact your county environmental health department or a reputable lab to test your water. Follow their instructions for taking the sample and submitting the sample. See the “How to take a water sample for testing” at <http://safety.cfans.umn.edu/videos.html>.

## Appendix D

### How to calibrate a thermometer

The melting point of ice method.

1. Place ice in a container and let it melt.
2. Stir to make sure that the temperature in the ice/water mixture is uniform throughout the container.
3. When the ice is partially melted and the container is filled with a 50/50 ice and water solution, insert the thermometer and wait until the needle indicator stabilizes. The thermometer should be 32°F (0°C).
4. If the thermometer is not reading 32°F (0°C), it should be adjusted by holding the head of the thermometer firmly and using a small wrench to turn the calibration (hex) nut under the head until the indicator reads 32°F (0°C).

An important item to remember is to never add tap water to ice because this will not be 32°F (0°C) but will be a higher temperature. The calibration will be much more accurate if you use melting ice.

Source: Gravani, R B., Rishoi, D C.,(1998). *Food Store Sanitation* (6<sup>th</sup> ed). Cornell University Food Industry Management Distance Education Program, Lebar-Friedman Books, Chain Store Publishing Corp.

## Resources

**Template updates, log sheets, how-to videos, and resource lists** can be found at the U of MN Agricultural Health and Safety website:

<http://safety.cfans.umn.edu/FSP4U.html>

**The National GAPs Program** Good Agricultural Practices Network for Education and Training: <http://www.gaps.cornell.edu/>

**Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables.** US DHHS, FDA, Center for Food Safety and Applied Nutrition  
<http://www.fda.gov/Food/GuidanceComplianceRegulatoryInformation/GuidanceDocuments/ProduceandPlanProducts/ucm064574.htm>

**Attached in the following pages:**

**Log sheets**

**Cleaning up small petroleum spills**—from the Minnesota Pollution Control Agency, <http://www.pca.state.mn.us/>

**Spill debris disposal options**—from the Minnesota Pollution Control Agency, <http://www.pca.state.mn.us/>

**The USDA Audit checklist**—(sections 1-4 only) The USDA checklist is the framework for the organization of this template. You can also find the most current version at the MN Dept of Ag Fruit, Vegetable, and Grain Unit website <http://www.ams.usda.gov/AMSV1.0/gapghp> or the USDA Agricultural Marketing Service website <http://www.ams.usda.gov/AMSV1.0/gapghp>