

# Risk Assessment and Food Safety Plans

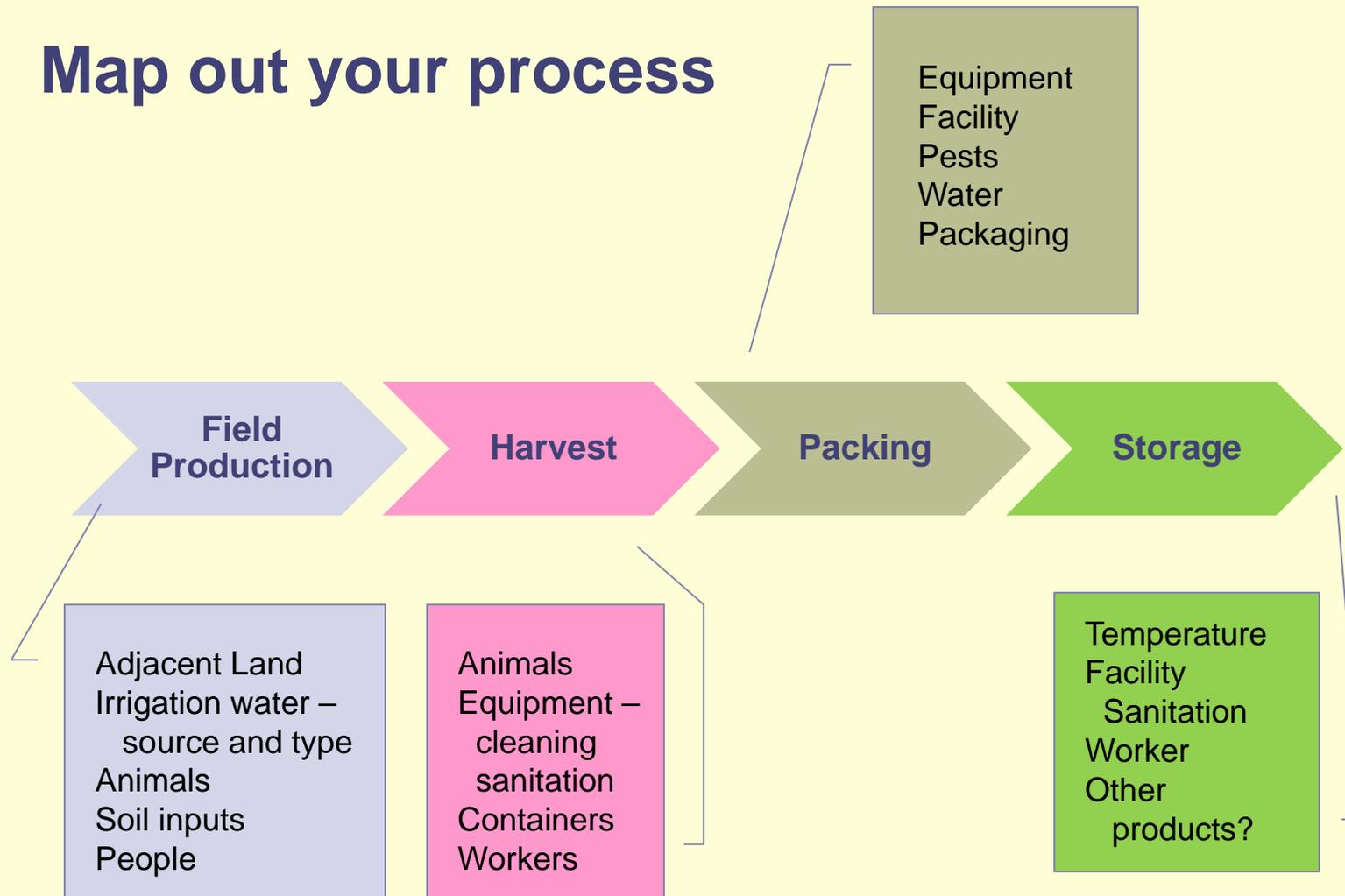
- On-Farm Risk Assessment
- GAP/Food Safety Plan
- SOPs and SSOPs
- Processor/Preventive Controls Food Safety Plans
- Is this required for GAP?



# Risk Assessment

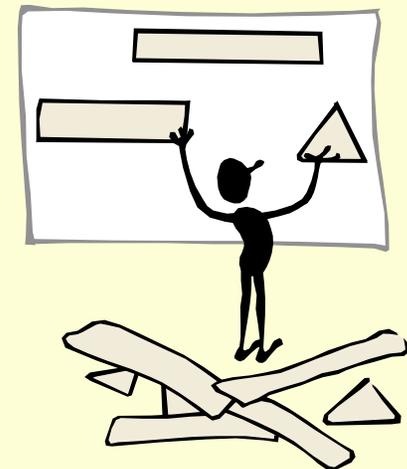
Adapted from presentation by Jim Gorny 3/2014 workshop: "Local Grower Food Safety"

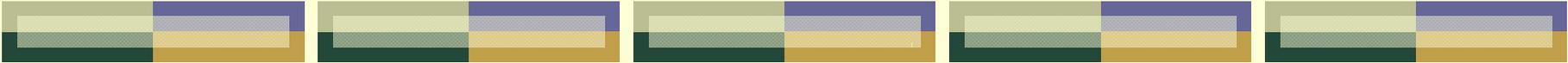
## Map out your process



## Risk Assessment: Lay out a plan

- Questions to ask:
  - Are there potential sources of pathogens?
  - Could they get on or in your fruits or vegetables?
  - What can you do to help manage or prevent these risks?
- Good risk assessment leads to good risk management!

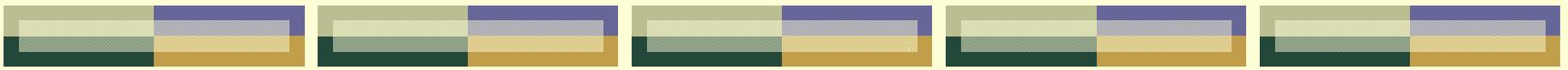




# **Risk Assessment:**

## **What should you be considering?**

- Risk/Hazard
- Type of Contamination (e.g. bacteria type)
- Significance – Is it high or low?
- Risk Management Practices – what are you going to do to minimize risk
- How are you going to measure the practice and how often?
- Verify and record
- Anything new? Field? Commodity? Equipment?



# Risk Management Scheme: Soil amendment Use

<b>Risk/Hazard:</b>	Compost Use
<b>Contamination:</b>	E. coli 0157:H7, Salmonella
<b>Significance:</b>	High
<b>Practice:</b>	<ol style="list-style-type: none"><li>1) Purchase from vendors with validated process</li><li>2) Validate own process if on-farm (turns, temperature etc.)</li><li>3) Storage so no recontamination</li></ol>
<b>What needed?</b>	<ol style="list-style-type: none"><li>1) Certificate of Analysis each lot and log</li><li>2a) Temperature/Time over process and log</li><li>2b) Pathogen testing and log</li><li>3) Inspect piles and log</li></ol>

# Risk Management Scheme: Domestic Animals



**Risk/Hazard:**

Domestic animals

**Contamination:**

E.Coli 0157:H7, Salmonella

**Significance:**

High

**Practice:**

- 1) Fences
- 2) Location down from produce
- 3) Ditch to prevent run off
- 4) Buffer zones
- 5) Do they have to be there

**What needed?**

Visual inspection – weekly and log  
Testing when needed

# Risk Management Scheme: Workers and Hygiene



**Risk/Hazard:**

Restroom

**Contamination:**

Cross-contamination with E.Coli  
0157:H7, Salmonella, viruses

**Significance:**

High

**Practice:**

- 1) Worker Training
- 2) Sanitation procedures
- 3) Location
- 4) Paper towels/toilet paper
- 5) Soap, water

**What needed?**

Visual inspection – daily, 3 times a  
day, logs

Adapted from presentation by Jim Gormy 3/2014 workshop: "Local Grower Food Safety"

# Risk Management Scheme:

## People - PYO



**Risk/Hazard:**

People

**Contamination:**

E.Coli 0157:H7, Salmonella

**Significance:**

Medium to low

**Practice:**

- 1) Advisory signs
- 2) Hand washing facilities
- 3) Bathroom facilities
- 4) No petting zoos

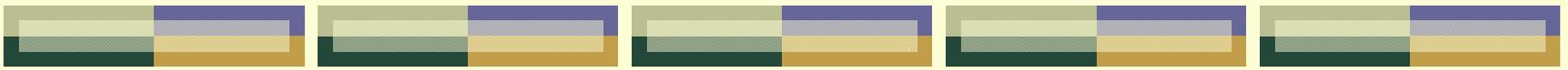
**What needed?**

Visual inspection – daily, 3 times a day, log

# GAP Food Safety Plan

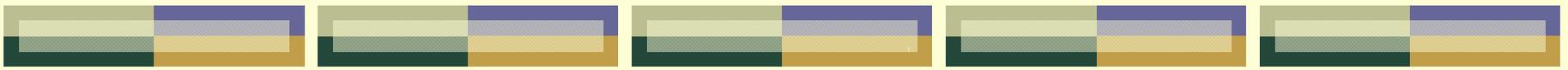
- **Policies:** What to do
- **Procedures:** How
- **Records:** Proof of what and when





# GAP Food Safety Plan

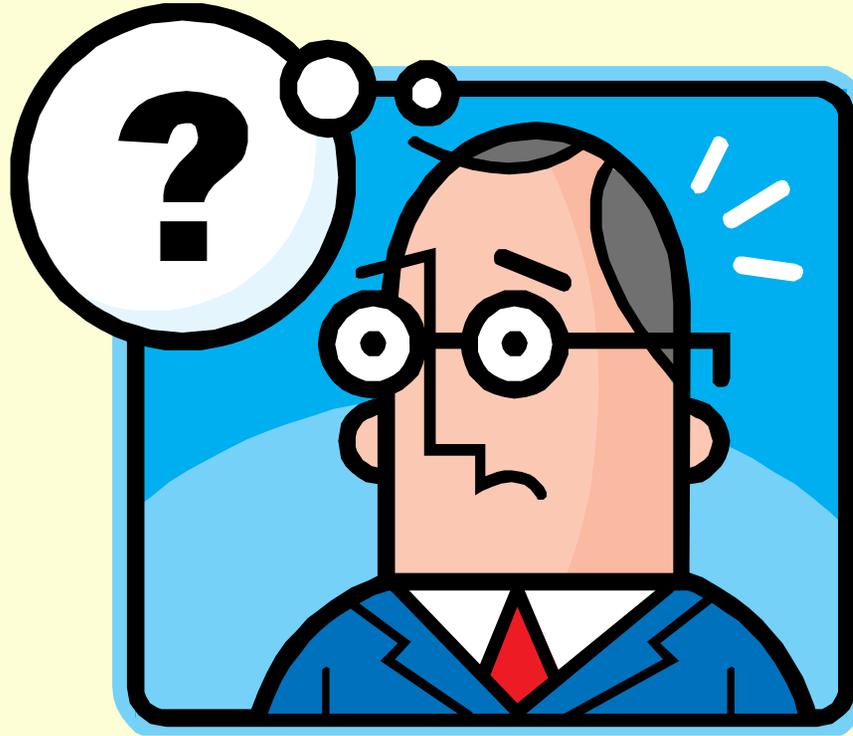
- **General grower information**
    - Who are you?
    - Crops grown, site location?
    - Person(s) responsible
    - Water source?
    - Type of soil  
amendments/handling/storage
    - Facilities available
- 



# GAP Food Safety Plan

- **What are you going to do? What is your policy?**
  - **How are you going to do it?**
    - Analysis
    - Training
    - Treatments
  - **How often are you going to do it?**
  - **What records are you keeping?**
- 

**Seems difficult to do:**



**Use RI Audit as a Guide**

**Cornell Self Assessment Tool as a Guide**

**Michigan Risk Assessment**

**Others**



# National Good Agricultural Practices Program

Department of Food Science—*Farm Assessment and Worksheets*



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## Downloadable Sections in PDF Format:

[Farm Assessment Instructions](#)

[My Farm Assessment](#)

[Record Keeping](#)

[Worker Hygiene](#)

[Toilets and Handwashing](#)

[Water Use](#)

[Pesticide Use](#)

[Manure Use](#)

[Compost Use](#)

[Herd Health](#)

[Wild Animals](#)

[Harvest Sanitation](#)

[Post Harvest Handling](#)

[Juice and Cider](#)

[Direct Marketing](#)

[U-Pick Operations](#)

[Petting Zoos](#)

[Farm Biosecurity](#)

[Crisis Management](#)

[\\*Complete Set](#)

<http://www.gaps.cornell.edu/Farmassessmentws.html>

## Elements of a GAP Food Safety Plan:

### What are you doing? How do you track?

- Location of farm, responsible person, commitment to food safety
- What is grown and where?
- Water source, irrigation method? Risks?
- What kind of worker training related to health policies and hygiene?
- What chemicals/fertilizers are being used? Manure handling?
- Are there toilet and handwashing facilities available?



## Elements of a GAP Food Safety Plan:

### What are you doing? How do you track?

- How is the produce packed/handled at harvest?
- Equipment cleaning and sanitation?
- Packing house – storage, washing, packing, ice, workers?
- Animal control/exclusion?
- Pest control
- Transportation



# Elements of a GAP Food Safety Plan

**Examples of records/documentations are kept in line with plan?**

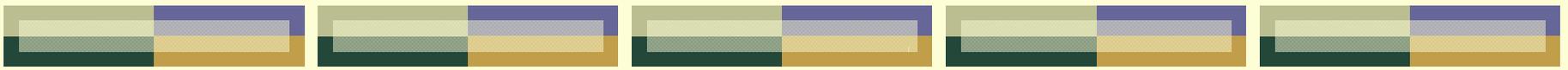
- Water testing – municipal and well, easy. Surface water? Your pond vs. stream
- Manure/Compost/Fertilizer application
- Pesticide application (already being done)
- Temperature log of farm stand (if necessary)
- Harvest log for traceback



# Harvest log for traceback

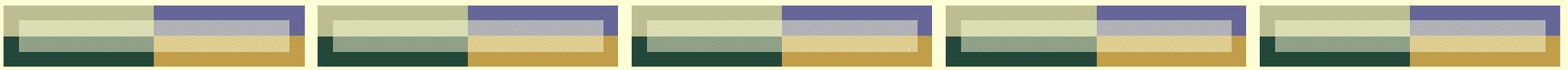
- Crop
- Who packed the produce (crew, group, individual)?
- What field did it come from?
- Date of harvest
- Date packed
- Date of sale and to whom





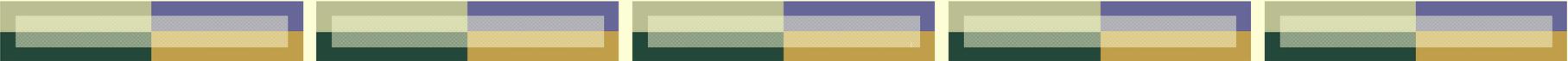
## Written Operational Procedures

- Standard Operating Procedures – SOPs
  - Sanitation Standard Operating Procedures – (SSOPs)
  - Incorporate in overall food safety plan
  - Written so task can be preformed – what are you doing and when, detailed
  - Can be used for training
  - Documents actual procedures you are following
  - **Good Manufacturing Practices – GMPs**
  - **Records**
- 



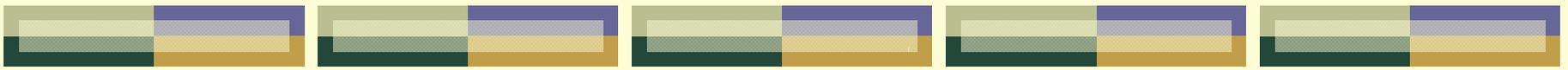
## Developing SOPs - Examples

- Use of agricultural chemicals and storage
  - Water testing schedule
  - Thermometer calibration
  - Cooler temperature monitoring
  - Traceback procedures
  - Produce washing procedures
  - Employee training
- 



## Developing SSOPs - Examples

- Maintenance
    - Handwashing facilities
    - Toilet facilities
  - Cleaning/sanitation of
    - Food contact surfaces
      - conveyors/belts
      - tables
      - cooling units
      - boxes/totes
      - wash/dump tanks
- 



## Developing SSOPs - Examples

- Employee hygienic practices and sick policy
  - Cleaning
    - Floors, walls
    - Harvest equipment
  - Waste/trash disposal
  - Pest control practices
- 

# Penn State:

<http://extension.psu.edu/food-safety/farm>

State Cooperative Extension - Mozilla Firefox

<http://extension.psu.edu/food-safety/farm/how-do-i-write-a-food-safety-plan>   Penn state Good agricultural

ted  Latest Headlines

PENNSSTATE  College Of Agricultural Sciences

Search... Search College

## COOPERATIVE EXTENSION

AgSci » Extension » Food Safety » Farm Food Safety » **How do I write a food safety plan?**

### How do I write a food safety plan?

Writing a food safety plan is made easier by taking it step by step. Use the Penn State GAP template, checklists, and logs to start writing your. Policies and procedures that you need to write down are all based on the USDA GAP audit standards. Updated July 2010.

[GAP food safety plan template](#)  
Fill out the forms, complete the checklists, and write down your policies. Print out or type in your information.

[Policies and Procedures](#)  
The policy and procedures suggestions in this document will help you to complete your food safety plan. Remember... What you write in your plan must be an accurate reflection of your practices.

[Checklists and Forms](#)  
Use these to document your farm food safety practices.

[Backgrounders on USDA Audit Standards](#)  
These documents provide more insight and interpretation into USDA's thinking about each question in the GAP audit.

Share    



**Farm Food Safety**

What are Good Agricultural Practices?

How does my farm compare with national GAP standards?

**How do I write a food safety plan?**

- ▶ Checklists and Forms
- ▶ Backgrounders on USDA Audit Standards

Where can I get help?

Helpful Resources

Contact Us

 Farm Food Safety Blog

 Blog RSS Feed



## On-Farm Food Safety Project

About | [How to Get Food Safety Certified](#) | [Create a Food Safety Manual](#) | [Forms/Training Materials](#) | [Resources](#) | [Press](#) | [Sponsors](#)

### Need Help Creating a Food Safety Plan?



The On-Farm Food Safety Project is a comprehensive national program that offers fruit and vegetable farmers, food safety professionals and agricultural extension specialists technical assistance to utilize and teach best practices in food safety.

This website includes the bulk of these resources including a free online tool, based on a comprehensive risk based framework, which generates customized on-farm food safety plans based on user input. The tool is

designed for use by small to mid-scale fruit and vegetable growers and provides a full set of record keeping tools to document their food safety program and to provide training to their employees.

Want to promote the On-Farm Food Safety Project at your upcoming food safety event? Click [here](#) for an information sheet.

 Search

**PROJECT LAUNCH:**  
Washington DC Press Conference  
with Kathleen Merrigan

[Learn About Food Safety and Start Your Plan:](#)

[How to Get Food Safety Certified](#)

[Create a Food Safety Manual](#)

*We are grateful that many leaders in food safety contributed to the development of this tool as members of the [technical advisory committee](#) and [advisory board](#).*

Coalition of industry, non-profit and government stakeholders, USDA created free on-line tool to help farmers create a customized food safety plan.

Reducing foodborne risks whether or not under FSMA

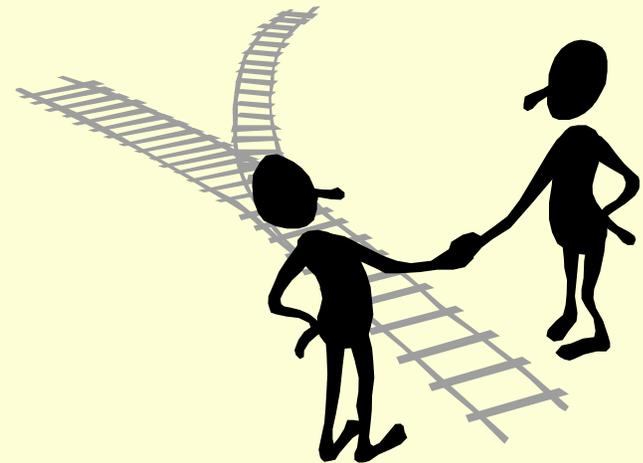
<http://onfarmfoodsafety.org>

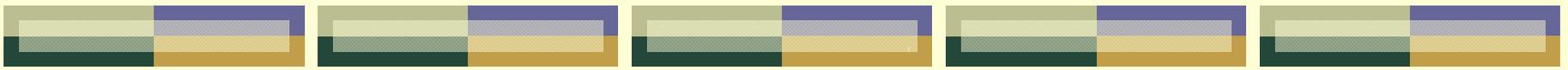
# Required for GAP?

**RI GAP vs.**

**Buyer requirements vs.**

**Harmonized GAP**

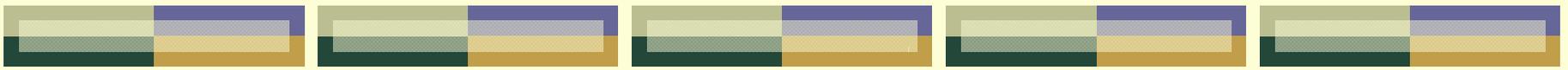




# **Processor/Preventive Controls Food Safety Plans**

**Goal: Ensure that processing controls  
in place to keep food that may cause  
foodborne illness from entering  
commerce**

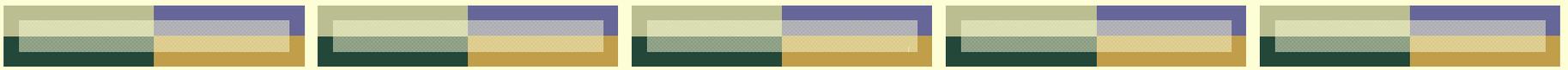




# Processor/Preventive Controls Food Safety Plans

- Pre-requisite programs
  - Sanitation, Food defense, Allergens, SOPs, GMP's etc. Records when needed. Separate or part of plan?





## Processor/Preventive Controls Food Safety Plans

- HACCP-type food safety plan - written
    - Hazard assessment and identifying prevention controls – biological, chemical, physical – reasonably likely to occur.
      - What are these? Guidance?
    - Critical points: limits to control hazard, monitor, records, correct as needed, verify
    - Reassessment requirements
- 