

A FARMER'S HANDBOOK TO THE USDA HARMONIZED GAP STANDARD VERSION 1.0 (2018)

Audit Tips and Strategies for Small and Mid-Scale Produce Operations

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Development of this handbook, and associated research, were funded through a cooperative agreement between the Agricultural Marketing Service of the United States Department of Agriculture (USDA AMS) and the Ohio State University to provide useful information for farmers preparing for the USDA Harmonized GAP. USDA AMS recognizes the value of educational resources to assist farmers in implementing food safety practices and navigating audits to improve market access.

INTRODUCTION

As most produce farmers and handlers are aware, food safety is a major concern in the market for fruits and vegetables. More and more produce buyers are requiring proof that their suppliers are implementing effective food safety programs all the way to the farm level. The USDA Harmonized GAP Audit program, run by the Specialty Crops Inspection Division of the USDA's Agricultural Marketing Service (AMS), is one option for produce operations to meet those market demands. This Farmer's Handbook for the USDA Harmonized GAP Standard is intended to assist small and mid-scale produce operations in preparing to meet the requirements of that audit, and so improve their opportunities to access markets for fruits and vegetables.

History of Harmonized GAP

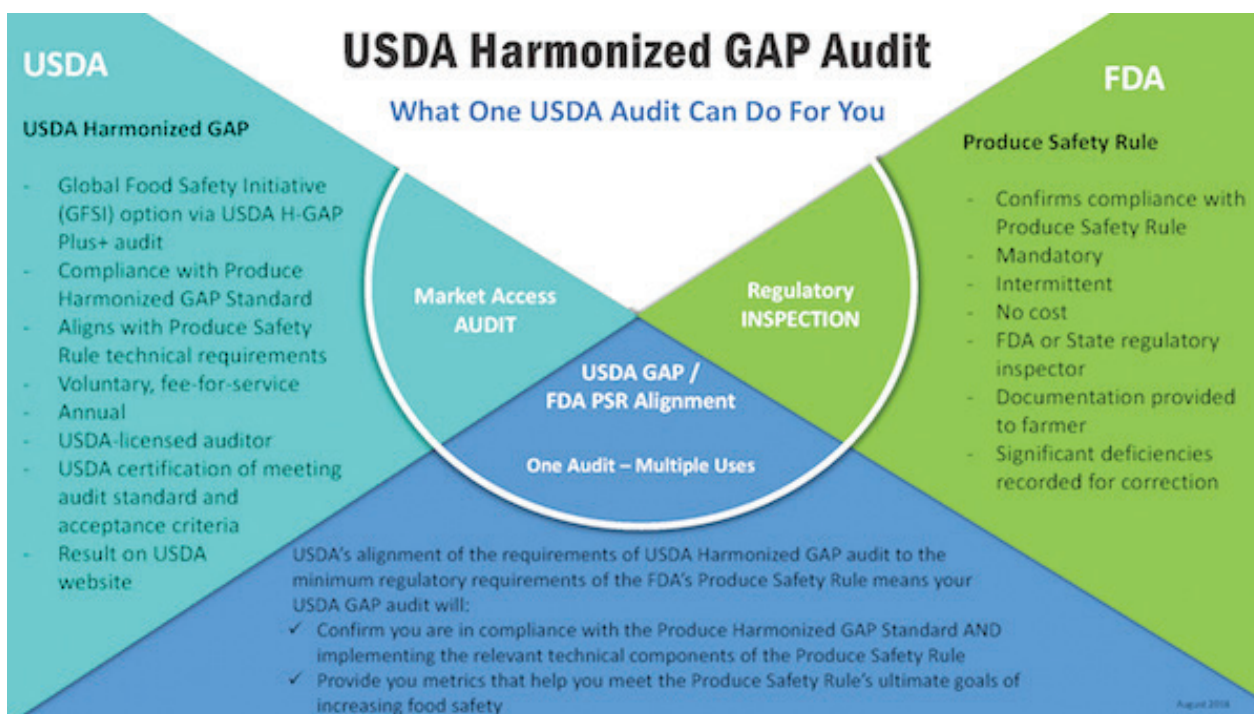
The USDA Harmonized GAP Audit Program was developed as part of the Produce GAP Harmonization Initiative, an industry-driven effort to develop a uniform food safety audit standard for pre-harvest and post-harvest activities for fresh produce operations. Launched in 2009, the initiative is led by the United Fresh Produce Association (UF) and is a collaboration of growers, shippers, produce buyers, audit organizations, and government agencies, including USDA. Prior to UF's launch of the Produce GAP Harmonization Initiative, third party produce audit providers commonly applied divergent standards in assessing fresh produce safety, leading to confusion in the marketplace. Uncertain which audit scheme was 'best', different produce buyers required different audits, meaning that producers selling to multiple buyers often had to undergo a different audit for each, leading to widespread audit fatigue and substantial audit costs for farms. The goal of the UF harmonized standard is "one audit by any credible third party, acceptable to all buyers."

The USDA Harmonized GAP audit is applicable to all fresh produce commodities, all sizes of on-farm operations, and all regions in the United States, and is becoming widely accepted by buyers. Undergoing the audit is voluntary.

Alignment of the USDA Harmonized GAP Program with FSMA

The USDA aligned its voluntary Harmonized GAP Audit Program with the FDA's Food Safety Modernization Act's (FSMA) Produce Safety Rule in 2018 in an effort to streamline regulatory and market food safety requirements. The goals of the alignment were to advance preventive food safety practices required under FSMA, and facilitate market access for the specialty crops industry by assuring buyers that all relevant technical components and metrics in the Produce Rule are addressed in the HGAP audit.

The USDA FSMA-Aligned Harmonized GAP (USDA HGAP) audit is **not a substitute for FDA or state regulatory inspections**. The USDA HGAP audit remains a voluntary, user-fee funded audit program to facilitate market access.



Updated USDA Harmonized GAP Program Acceptance Criteria

USDA has updated its checklist to reflect **81 mandatory** items: For each of these 81 items, the auditor must either find that you are in compliance with the requirement, or that it is not applicable to your operation. If the auditor deems any one of these items non-compliant, you will not meet the acceptance criteria to pass the audit even **if you are in compliance with every other applicable requirement of the Harmonized GAP standard**.

Failure to pass an audit does not mean you are subject to a government enforcement action for violating FSMA, but it does mean you will need to take corrective actions and possibly undergo a follow-up audit in order to achieve certification. Until you address any mandatory corrective actions and resolve any imminent food safety risks that are identified in the course of the audit, you likely will not gain access to buyers that accept USDA HGAP certification.

You are responsible for paying audit fees regardless of whether you meet the acceptance criteria on the first or any subsequent audit attempts. So making every effort to comply with all mandatory checklist items applicable to your operation from the start makes sense.

USDA intends that passing the USDA Harmonized GAP audit will give buyers confidence that your operation is compliant with the FSMA Produce Safety Rule. Moreover, passing the audit can give you confidence that you are implementing industry-standard best practices for produce safety.

How to Use This Handbook

This Farmer's Handbook is intended to assist your produce operation in the identification of risks from potential sources of biological, chemical and physical hazards in growing, harvesting, packing and transporting fresh produce, and to provide a tool to assist in successfully navigating a USDA HGAP Audit.

The Handbook was developed based on challenge areas small and medium-scale produce operations have consistently encountered in meeting the requirements of the FSMA-aligned USDA HGAP audit. It provides details and scenarios related to those challenges and requirements of the standard that may not be easily understood, or that are more difficult for a smaller operation to meet. While these examples may or may not align exactly with your operation, they illustrate successful approaches to addressing food safety challenges on your farm, and model how to think about these issues in preparation for a USDA HGAP audit.

During an audit, you should be prepared to advocate to the auditor about how your operation's practices and strategies mitigate food safety risks. Your food safety program will be unique to your farm, and conversations between you and the auditor are critical opportunities to demonstrate to the auditor that you understand your farm's specific risks and have an effective program in place to manage those risks.

Although it does not comprehensively address every single item in the standard, this Handbook tracks the USDA HGAP Checklist, examining specific risks you should consider when conducting a risk assessment and creating a comprehensive food safety plan. You can use the USDA HGAP Checklist and this Handbook side-by-side in drafting your Standard Operating Procedures (SOPs) or reviewing a food safety plan template.

As a companion to this Handbook, the Carolina Farm Stewardship Association makes available templates for conducting key risk assessments and for keeping certain critical records. Where these templates are referenced in this Handbook, they are indicated in the color **green** with a hyperlink to template itself. The templates also are available on the Carolina Farm Stewardship Association website at <https://www.carolinafarmstewards.org/record-keeping-and-risk-assessment-templates/>. Other important sources of tools and information on HGAP and food safety are your local cooperative extension agency, state department of agriculture, and local agriculture organizations and nonprofits.

The development of this Handbook was also informed by the results of a survey of all farms that obtained a USDA HGAP audit in 2019 conducted by faculty at the Ohio State University; over 100 farm operators completed the survey. Key advice from survey respondents was to talk with other farms that have undergone the USDA HGAP audit, in addition to seeking assistance from local agriculture organizations, cooperative extension and state government sources.

Steps to GAP Success

DETERMINE BUYER EXPECTATION

Which scopes will you include in your audit?

IDENTIFY CROPS YOUR BUYER HAS COMMITTED TO BUYING

Schedule audit to correspond with harvest.

IDENTIFY A FOOD SAFETY MANAGER

PARTICIPATE IN FOOD SAFETY TRAINING

Food Safety Manager completes training and trains employees

CONDUCT RISK ASSESSMENTS

CREATE A FOOD SAFETY MANUAL

IMPLEMENT FOOD SAFETY PROGRAM

Policies and procedures, documentation of activities, water testing, mock recall

SCHEDULE YOUR AUDIT

Use form SC-287 A; List dates you plan to harvest

Auditor will contact you and provide the Audit Agenda and Estimated Costs

GENERAL OVERVIEW

The success of your audit preparation will depend on your familiarity with the requirements of the HGAP standard, your identification of the food safety risks on your farm, and the policies and procedures you implement as mitigation strategies. All operations are unique, and the HGAP standard considers this in its design and requirements.

UNDERSTANDING THE HARMONIZED GAP AUDIT SCOPES

Before you schedule your audit, you will need to decide which scopes of your operation you want audited. The USDA HGAP audit consists of four scopes, included on a single checklist (see Appendix A).

The Scopes

- 1 General Questions**
Required for every audit
- 2 Field Operations and Harvesting**
Applicable to all growing operations
- 3 Post-Harvest Operations**
Applicable to all post-harvest activities
- 4 Logo Use**
Applicable to operations who intend to use the USDA GAP & GHP logo on packaging or promotional materials.

Confirm buyer requirements before requesting any audit.

It is important for you to check with your buyer to confirm that the buyer will accept the USDA HGAP Standard for the crops and volume of product you want to sell. The buyer may specify certain scopes that you must complete as part of its food safety requirements.

TIMING THE AUDIT

During an audit, the auditor will require that you demonstrate all activities covered under your scope. To avoid the potential of undergoing multiple audits in a given year, the timing of your audit is important. A HGAP audit is conducted to observe your policies and procedures, not a crop itself. Choose a date when you have the most crops in production, so you can demonstrate as many harvest techniques and post-harvest handling activities as possible.

Your audit certificate will list specific crops, and the auditor will observe all of the processes associated with production of those crops that are relevant under your audit scope. The auditor will not necessarily observe every single step of every single crop, but he or she will want to observe processes common to multiple crops wherever possible.

For example, if you are undergoing the Post-Harvest Operations scope for tomatoes and fall root vegetables, you will need to be able to demonstrate any washing, packing and transportation of the products to be covered under the audit. If the audit happens during summer tomato production and washing is not part of your post-harvest process for tomatoes, the auditor will not evaluate checklist item P-7.4 (Operation's Food Safety Plan includes produce washing process, if used). Therefore, for fall root crops that are washed post-harvest, you may have to undergo an unannounced audit during the fall to complete the Post-Harvest Operations scope.

LISTING PRODUCTS ON THE GAP CERTIFICATE & AUDIT REPORT

Once USDA has approved your audit, you will receive an audit certificate as well as a complete audit report. Your audit report will detail all the crops covered in your audit. However, there is only space on the certificate to list up to 20 crops; if a buyer is requesting more than 20 of your crops to be listed on the certificate, discuss the situation with your state Department of Agriculture when scheduling the audit. It is recommended that you group crops **without** specifying varieties (lacinato kale, dinosaur kale, etc.), growing methods (organic, conventional, hydroponic, etc.), or any post-harvest handling activities (drying, etc.), unless your buyer has specifically requested that level of detail. All commodity types harvested during the day of the audit may be listed on your certificate.

You don't need separate audits for every crop.

Grouping similar crops together that you harvest and handle the same way ("root crops" for carrots, parsnips and celery root; "leafy greens" for chard, kale and collards; "herbs" for basil, cilantro, and tarragon; etc.) is an acceptable practice, and will save you the cost of obtaining separate audits for individual crops. Keep in mind that, if a buyer is requesting an audit to cover a particular crop, you may want that crop specifically listed on the audit certificate. Confirm your buyer's expectations in advance of your audit.

THE AUDIT STANDARD

The USDA Produce GAPs Harmonized Food Safety Standard should be used as a guide as you work through this Handbook.

<div> <div>MAN (MANDATORY) Specification of the conditions expected to be met. If marked as mandatory, the requirement must either be assessed as Compliant (C) or Not Applicable (NA), or else result in an automatic failure.</div> <div>PROCEDURE Explanation of the conditions expected to be met by the auditee in order to meet the requirement.</div> <div>DOC (DOCUMENTATION) The requirement of the standard for written verification of policies, procedures, records and risk assessments</div> <div>VERIFICATION Conditions verified by the audition to determine if the requirements of the standard are met.</div> <div>REQUIREMENT Specification of the conditions expected to be met.</div> <div>CORRECTIVE ACTION Actions taken by the auditee for any non-compliances.</div> </div>						
REQ. #	REQUIREMENT	DOC	MAN	PROCEDURE	VERIFICATION	CORRECTIVE ACTION
	Field Operations and Harvesting					
F-1	Field History and Assessment					
F-1.1	The food safety plan shall initially, and at least annually thereafter, evaluate and document the risks associated with land use history and adjacent land use including equipment and structures.	A	●	When land use history or adjacent land use indicates a possibility of physical, chemical or biological contamination, preventative controls shall be performed and documented to navigate food safety risk. The assessment is re-performed, and documented, at least annually for environmental condition or risk awareness that has changed since the last assessment. The assessment shall include indoor growing facilities and structures such as greenhouses and hydroponics.	Auditor reviews food safety plans to verify that risks associated with field history, adjacent land use and indoor growing facilities have been evaluated at least annually and preventative controls implemented for identified risks.	Operation evaluates and documents risks associated with land use history, adjacent land use and indoor growing facilities and implements preventative controls for identified risks.

Table 1: Excerpt from Produce GAPs Harmonized Food Safety Standard USDA Checklist

Name of Auditee:								
Date of Audit:								
REQ. #	REQUIREMENT	DOC	MAN	C	CAN	IAR	NA	AUDITOR COMMENTS
	General Questions							
G-1	Management Responsibility							
G-1.1	A food safety policy shall be in place.	WP	●					
G-1.2	Management has designated individual(s) with roles, responsibilities, and resources for food safety functions.	WP	●					

AUDIT SCORING

The USDA has updated the acceptance criteria necessary to achieve certification, resulting in the expansion of the number of ‘mandatory’ items discussed above. As you go through an audit, the auditor will mark each audit checklist item in the scopes applicable to your operation as Compliant (C), Corrective Action Needed (CAN), Immediate Action Required (IAR) or Not Applicable (NA). The auditor will document all findings associated with questions answered CAN, IAR, or NA in the auditor comment section of the checklist, and may include at his/her discretion any observations made during the audit associated with any checklist items, even those marked C.

The USDA HGAP audit checklist includes a Corrective Actions Report document (CAR), and the auditor will fill in this form for all checklist items marked as CAN or IAR. The CAR should include all information relevant to the specific requirement of the unmet standard, the documents required to achieve compliance (if any), whether the requirement is mandatory, and auditor’s comments. The auditor will review any CARs during the closing meeting of the audit and discuss any actions required to achieve compliance, including a timeframe for implementing those corrective actions or providing needed records. You have until the end of the next business day after the completion of the onsite audit to submit documentation of corrective actions, as well as any required records that were not available onsite during the audit, and have those records included in the audit. These additional materials may be submitted via email, fax, or in person.

IMPORTANT NOTE: It may be possible to address noncompliances that the auditor initially identifies **in real time during the audit**. Throughout this Handbook there are examples of actions farmers took during an audit that ultimately avoided CAN findings in the audit scoring. In most circumstances an auditor would not consider such a situation a ‘corrective action’, since being able to respond appropriately to a food safety issue during an audit demonstrates that your food safety program is working. The auditor may describe the situation and your response in the audit report.

Always maintain food safety records according to the frequency specified in your Standard Operating Procedures (SOPs).

The USDA considers the falsification of records as an “IAR”, resulting in an automatic fail of the audit. Attempting to ‘catch up’ records that were supposed to have been kept at the time crop production, harvest or handling activities took place, or at other designated frequencies as part of your food safety program, could be considered falsification of records. Keep all records up to date at all times.

USDA HGAP Acceptance Criteria

The USDA HGAP acceptance criteria are described below, and you **will NOT** pass the audit if you **fail to meet ANY** of these requirements.

- 1 There must not be any questions assessed as an “IAR” (Immediate Action Required).
- 2 There must be no falsified records.
- 3 Any question with a ● in the MAN column must be assessed as “Compliant” or “NA”.
- 4 The operation must have performed all applicable risk assessments, designated with an “A” in the DOC column.
- 5 An operation that has undergone a previous Produce GAPs Harmonized Food Safety Audit must have addressed all CANs or IARs from that previous audit, following the established corrective action procedure in its food safety plan.
- 6 In any of the major scopes assessed (G, General Questions; F, Field Operations and Harvesting, and P, Post-Harvest Operations), at least 80% of the questions not answered as “NA” must be marked compliant.

DOCUMENTATION REQUIREMENTS

The documentation component of a food safety management program — writing policies and procedures, and creating and maintaining recordkeeping systems to verify that your farm is following your food safety plan — can be an overwhelming process for farmers, who are typically outside, focused on managing the health and productivity of their crops and soils. Yet time and again throughout the produce industry, farmers report that once they implement a food safety program, their operations become more efficient, and their ability to identify and mitigate risks and correct problems when they occur is dramatically improved.

The USDA HGAP Checklist describes the specific documentation requirements in the format as shown in Table 1. Under the ‘DOC’ column, the checklist classifies required documents as a Written Procedure (WP), Records (R) or a Risk Assessment (A).

Written Procedure (WP)

A written procedure is a document that describes the process or desired outcome of a food safety plan activity. One type of written procedure is a Standard Operating Procedure (SOP), which describes step-by-step actions that must be followed to assure consistent behavior by everyone covered by the SOP. Written procedures must describe the activities of your operation and the policies and procedures in place to mitigate potential food safety risks. The written SOP will specify the records you will use to fully comply with the procedure.

Record (R)

A record provides verification that the results of your food safety program were achieved or provide evidence of activities performed.

Examples of Records

- Water test results
- Checklists, logs, and risk assessments
- Service records
- Invoices/traceability records
- Training certificates

Documentation can take many forms, including written logs, pictures of daily whiteboard notes, digitally recorded cooler temperature logs, invoices, etc.

Risk Assessment (A)

A risk assessment provides verification that efforts have been made to evaluate potential food safety risks within your operation.

Rank your risks.

When conducting a risk assessment, you must document the potential physical, chemical or biological hazards on your farm, as well as the likelihood each hazard will impact the safety of fruits and vegetables.

Likelihoods may be expressed as: Low, Medium, or High

Conducting a Risk Assessment

Risk assessments are the most important elements of a food safety program and involve reviewing all aspects of the farm and its operational practices.

The most common pathogen contamination hazards come from four sources: water, workers, waste, and wildlife. Risk assessments are conducted within an operation to identify potential food safety hazards, and especially those related to these four contamination routes. You develop your food safety program based on the risk of hazards specific to your farm and your food production and handling operations. Any potential hazards identified must be addressed through preventive or corrective action to minimize the risk of occurrence and cross-contamination. For audit purposes, the risk assessments you need to conduct are dependent on the scope of your audit and your operations.

For each risk area relevant to your farm, you should conduct an assessment on the following frequencies:

When to Conduct a Risk Assessment

- On an annual basis, at minimum
- When major changes to processes or procedures occur
For example, when a new crop is introduced on the farm, or new post-harvest equipment is installed.
- Before harvesting a crop ([Pre-Harvest Risk Assessment](#))
- When an incident occurs causing injury or harm on the farm

Table 2. Risk Assessments required for the USDA Harmonized GAP Audit Standard

SCOPE	REQUIRED RISK ASSESSMENT(S)
General Questions	None
Field Operations and Harvesting	<ul style="list-style-type: none"> • Land Use History and Adjacent Land Use • Water System Risk Assessment • Animal Control Risk Assessment • Soil Amendment Risk Assessment • Pre-Harvest Risk Assessment
Post-Harvest Operations	<ul style="list-style-type: none"> • Allergen Risk Assessment • Produce Washing Risk Assessment
Logo Use	None

Table 3. Examples of Sources of Food Hazards by Category

BIOLOGICAL	CHEMICAL	PHYSICAL
Humans	Pesticide	Glass
Wildlife	Antimicrobial Residue	Metal
Rodents	Oil/fuel	Rocks
Microorganisms	Cleaning Chemicals	Wood

In the case of food production and public health, risk may be defined as the likelihood of a hazard contaminating a food item. Hazards are classified as biological, chemical or physical contaminants, unintentionally added in or on food, which may have adverse health effects. Specific examples of these hazards are described in Table 3.

It can be difficult to conceptualize some food safety hazards on a farm, simply because any particular condition or activity has been viewed as ‘normal’, or has been in place for many years without causing any known problems. Hazards that operations frequently overlook or underestimate include:

- **Water:** Water can be a major potential source of contamination. To reduce the risk of potential cross contamination from a water source, the ideal practice is to not let water (other than rain) come into contact with the edible portion of a crop unless it is necessary for the production, harvest and handling of that crop in your operation. While preventing water from touching the edible portion of the crop may not be possible with some situations and crops, there are best practices you can put in place to reduce risks. If water is used post-harvest for washing or hydro-cooling, the best practice is to use a sanitizer in the water to prevent cross-contamination.
- **Damp Spaces:** Produce is sometimes stored in damp places, which can be optimal settings for pathogens to grow and survive. For example, the pathogen *Listeria monocytogenes* is very hardy at normal refrigeration temperatures, making moist conditions in cold storage facilities an ideal environment for its growth.

- **Chemicals:** Pesticides, herbicides and sanitizers are commonly used on the farm and can cause injuries to humans if they are not applied according to their label instructions, and only for their approved uses.
- **Vehicles and Equipment:** Oil and non-food grade lubricants can leak out of vehicles and equipment and become a source for contamination, especially when used within the production areas where produce is being harvested.
- **Broken Glass:** Glass can get into packed produce from a broken light bulb above a packing line or storage area. Neon bulbs may be covered with a protective plastic sheath.

These are just some of commonly encountered examples of the potential hazards that your risk assessment may need to consider. Each operation is different and therefore has different types and levels of risk to assess.

If a risk is not identified within an operation, there is no need to implement a policy or procedure to mitigate that risk as part of your food safety program. Any high risks identified during a risk assessment should be addressed immediately. Typically, there are minor changes that will need to be made as part of your preventive or corrective actions to reduce the likelihood or severity of an identified risk. Your goal is to reduce the risk to an acceptable level given its likelihood of impacting public health.

AUDIT FREQUENCY & TERMINATION

USDA HGAP certification expires one year from the date of the audit, so to maintain GAP-certified status you must undergo a GAP audit PRIOR to your current audit's expiration date. It is a good idea to request your annual audit at least six weeks in advance and plan your audit early in your preferred crop season. That way, in the event you do not meet all acceptance criteria the first time you undergo an audit, you may have time to implement and document corrective actions or request a follow-up audit and still market your crops to buyers requiring an audit before your season is over.

The USDA maintains the right to conduct an unannounced audit at any time to verify an operation is consistently implementing its food safety plan. Also, a follow-up audit to address a CAN finding on an initial audit may happen with little advance notice. Therefore it is important to always maintain "audit ready" status within your operation.

In the event that you are notified during an audit that you will not pass, you have the choice to continue the audit or to terminate it. If you terminate the audit, you might not be provided a full audit report, but you will receive a report from USDA covering the auditor's observations and findings while he or she was on site. You will be billed for the auditor's preparation and travel time, as well as the time the auditor spent at your operation. Receiving a completed final audit report with all findings is a beneficial tool in preparing for a re-audit, so it may make sense to continue the audit even if you learn you will not pass that day. The auditor must continue the audit if you request him or her to do so.

AUDIT COSTS

The federal rate for audit services in federal fiscal year 2019 is \$108 per hour, per auditor, including billable hours for audit preparation, travel time to and from the audit site, and preparing the final audit report for submittal to the USDA, which conducts the final review of the audit results and approves the audit for certification. All applicants undergoing a USDA GAP audit performed by a state Department of Agriculture under agreement with USDA will receive two bills for the audit service, one from the state and one from USDA.

Being organized saves time and money.

Having your documentation and records readily available and well organized is essential to reducing audit costs. The less time you and the auditor have to spend searching for these materials the better.

NOTE: USDA reviews its fees on an annual basis, which may result in an increase in hourly audit rates in future years. Check the [AMS website](#) to confirm the current hourly audit rate.

SCHEDULING AN AUDIT

To obtain audit services, you will need to set up a vendor account directly with the USDA, using the Specialty Crops Inspection Division Vendor Form (SC-430). **This is a one-time process:** once your operation is in the USDA's vendor system you do not need to take this step for subsequent audit requests. An example of this form is included in Appendix C of this Handbook. Failure to set up an account or to pay either the state or USDA bill may result in cancellation of your GAP certification. The vendor form must be submitted directly to SCI Division Audit Services Branch (ASB) using one of the following methods:

- 1 **Email to:** SCReimbursement@ams.usda.gov
- 2 **Fax to:** 866-230-9168
- 3 **Mail to:** USDA, AMS, SCI, ASB
1400 Independence Avenue, SW
Stop 0247, Room 0707-S
Washington, DC 20250-0247



Desk Audit being conducted with auditee

Request your audit date in a timely manner, at least six weeks prior to the end of the growing/harvest/packing/transport season for the earliest crop for which you are seeking certification, and with plenty of time before your current audit (if any) expires. To schedule an audit, complete the Request for Audit Services (Form SC-237A) and a signed Agreement for Participation in the GAP/GHP Audit Verification Program Form (Form SC651) and scan or email the completed forms to the appropriate contact. Quick Links to the forms are located in Appendix A. An example of a completed Request for Audit Services (Form SC-237A) is located in Appendix B.

Additionally, you may be asked to submit your Food Safety Plan directly to the auditor. It is not mandatory that you submit your Food Safety Plan prior to the audit; however, it may reduce the on-site audit time if the auditor is able to review your policies ahead of time.

To contact your state Department of Agriculture directly, you can find local contact information organized by state at <https://www.ams.usda.gov/services/how-request-gap-and-ghp-audit>.

What to Expect on Audit Day

The auditor will arrive on your farm at a predetermined time on the date of the audit. The audit will include the following components:

1 The Opening Meeting

- Auditor will ask you to complete and sign any necessary forms, including providing the auditor permission to be onsite conducting the audit.
- Auditor will request to see your food safety manual.
- Auditor will provide you with the opportunity to ask any questions.

2 Document Review

- Auditor will review your written policies and procedures and verify accompanying recordkeeping components identified within your SOPs.
- A uditor may interview workers, including family members and employees, during the desk audit.

3 Field and Post-harvest Handling Activity Walk-Around

- Auditor will ask you questions and make visual observations during a tour of the operation. STAY FOCUSED. . . TIME IS MONEY.

- Auditor may interview workers, including family members and employees, during the walk around.
- Consider driving the auditor around the operation if it is feasible and can save time.
- Only show the auditor the operations relevant to the scopes and processes that you are including in the audit.

4 Closing Meeting

- Auditor will review his/her findings with you, including questions that were marked “not applicable” (NA) to your operation.
- Take notes on the auditor’s findings during the closing meeting, especially any CAN or IAR findings. The auditor will not leave any documentation of non-conformances at the time of the audit because audit findings must be approved by USDA before your audit report is issued.
- Auditor will provide you with the opportunity to ask any questions.

NOTE: The auditor is not allowed to consult during the audit. However, he or she can provide clarification on the requirements of the standard.

PROVIDING AUDIT RESULTS TO BUYERS

Upon completion of a successful audit, you will receive a copy of the completed audit report and a certificate in the mail through the US Postal Service or other courier, which may be used for verifying to buyers your successful completion of an audit. You should receive your certificate within six weeks.

Additionally, the USDA has a website, searchable by state, which buyers can use for verification, found at: <https://apps.ams.usda.gov/GAPGHP/reportG05.aspx>. In the event that you do not receive your certificate in a timely manner, a buyer may be satisfied with temporarily utilizing the online verification system until you are able to supply your certificate.

NEXT STEPS FOR USING THIS HANDBOOK

The sections that follow provide overviews of each section of the four HGAP audit scopes:

- 1 General Questions (Required for every audit)
- 2 Field Operations and Harvesting (Applicable to all growing operations)
- 3 Post-Harvest Operations (Applicable to all post-harvest activities)
- 4 Logo Use (Applicable to operations who intend to use the USDA GAP & GHP logo on packaging or promotional materials)

Within each scope, the Handbook highlights key challenge areas small and medium-scale produce operations have consistently encountered in meeting the requirements of the USDA HGAP audit. **It does not address every single item in the FSMA-aligned HGAP standard.** The details and scenarios presented here may not align exactly with your operation, but they illustrate successful approaches to addressing food safety on your farm, and model how to think about these issues in preparation for a USDA HGAP audit. Remember

to use the [USDA HGAP Checklist](#) as you prepare for your audit, with this Handbook as an accompanying resource.

This Handbook is meant to be used in conjunction with [risk assessment and recordkeeping templates](#) that are provided on the Carolina Farm Stewardship Association’s website. These templates are free for your use, and can be incorporated into your operation’s food safety program. USDA does not require these specific documents, but they may be useful to you in meeting the documentation requirements.

READER’S NOTE: Throughout the examples that follow, some HGAP checklist items — including columns for the requirement number, the requirement itself, the type of documentation applicable to the item, and whether the item is mandatory or not — will be reproduced as they appear in the USDA HGAP audit standard, with one exception. In the standard, the ‘Mandatory’ column is marked with a ‘✓’ symbol if the item is mandatory, and is blank if the item is not. In this Handbook, the column will use ‘YES’ in the ‘Mandatory’ column to indicate if the item is mandatory, and ‘NO’ if it is not.

QUESTIONS G-1 TO G-11

GENERAL QUESTIONS

The General Questions section contains an overview of food safety requirements for all types of operations undergoing a USDA HGAP audit. The General Questions scope is mandatory for all operations undergoing the audit.

G-1 MANAGEMENT RESPONSIBILITY

The individual(s) in charge of a farming operation is responsible for ensuring that the food the operation distributes to the food supply chain is not harmful to human health or unfit for human consumption. Even when you and your family are the main or only source of labor in your operation, if you are the one(s) making the decisions relevant to running the farm or business, you are also ‘management.’ As part of its food safety responsibility, management must provide adequate resources and ensure that all workers, whether employees or family members, are properly trained and that all food safety policies and procedures are followed. Management must designate an individual to be accountable for the food safety program, including a disciplinary policy for any personnel who violate established food safety policies or procedures.

G-1. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
G-1.1	A food safety policy shall be in place.	WP	YES

G-1.1 GROWER GUIDANCE

A food safety policy (see example at right) is typically a written statement of one page or less that describes management’s commitment to food safety, including a commitment to provide adequate resources to food safety efforts. The policy should provide a general statement on how the commitment will be implemented, monitored and verified. The policy must be communicated to workers in appropriate languages.

COMPLIANCE ESSENTIALS

- ☐ The food safety policy must be communicated to employees during training and/or by posting the policy in a common area in appropriate languages.
- ☐ Senior management must sign the policy.

REQ. #	REQUIREMENT	DOC	MAN
G-1.2	Management has designated individual(s) with roles and responsibilities for food safety functions.	WP	YES

G-1.2 GROWER GUIDANCE

Accountability is a fundamental component of a food safety program. Management must designate individuals that are responsible for food safety activities, including if possible alternate individuals who can stand in when the primary person is absent. Individuals who have the authority to make food safety-related decisions — including any third parties responsible for any of your farm’s relevant production and food safety activities, such as labor contractors, consultants, etc. — play an important role in maintaining a food safety culture, and therefore it is important to communicate all food safety roles and responsibilities to all relevant personnel.

COMPLIANCE ESSENTIALS

Example of a Food Safety Policy, including Management Commitment Statement

Our Policy: Carolina Farms, LLC understands that food safety and quality is ultimately our responsibility. Management is committed to providing our customers with safe, quality food by financially supporting and guiding the development, implementation and maintenance efforts within the farming operation in food safety, quality and continuous improvement for all products produced. The comprehensive approach is designed to address biological, chemical and physical hazards. Carolina Farms, LLC will provide necessary staff, training and resources needed to implement, maintain and carry out all tasks associated with the food safety and quality policies and procedures.

Our Commitment: At Carolina Farms, LLC we hold ourselves accountable to fully implement our Food Safety Program and continuously seek ways to improve the food safety system in our entire produce supply chain. We are committed to transparency and sharing information on food safety issues across our business and with regulators, customers, vendors, suppliers and consumers. We hold our growers, vendors, and suppliers accountable for fully implementing our requirements of them.

A signed version of this commitment will be posted and communicated to all employees and visible to all visitors of the farm.

Farmer John
Owner/Food Safety Manager

COMPLIANCE ESSENTIALS

- ☐ Create an organizational chart or make a list of food safety responsible individuals.
- ☐ Include an alternate individual who has responsibility and authority in the absence of the primary food safety-responsible individual.
- ☐ Include a 24-hour contact phone number for each food safety-responsible individual in case of an emergency.
- ☐ Post the list of responsible individuals, including emergency contact information, in a common area within the operation.

G-2 FOOD SAFETY PLAN, INCLUDING RISK ASSESSMENT

You must have a written food safety plan that fully covers the scope of your operation that will be included in the audit. **Your food safety program must be in place for a long enough period prior to the audit to demonstrate it is effective, typically 1-2 months (including records).** The risk assessment is the first step in preparing the food safety plan and is a mandatory requirement, where applicable.

The HGAP Standard itself does not clearly specify a minimum timeframe for a program to be in place, and so is up to the auditor's discretion whether your system has been in place long enough for you to have sufficient records and processes in place to demonstrate conformance to your food safety plan. For a short season crop, it is understandable that you may not have been maintaining records for very long; however USDA generally recommends that you have your program, including records, in place for at least 21 days prior to the audit. **It can save you wasted auditor travel costs to have a discussion prior to audit day with the auditor or auditing agency regarding the length of time your food safety program has been in place.**

Your written food safety plan must cover the scope of your operation, identifying physical, chemical, and biological hazards reasonably likely to occur, including control procedures such as monitoring, verification and recordkeeping. The plan must be reviewed at least annually, and you must document the review procedure and any revisions made as necessary, including the date of the review. For the Post-harvest Operations scope only, a current list of approved raw material suppliers (e.g. vendors for packaging materials, sanitizers, etc.) is required, including a procedure for accepting materials from alternate sources.

G-2. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
G-2.1	There shall be a written food safety plan. The plan shall cover the Operation. The Operation and products covered shall be defined.	WP	YES

G-2.1 GROWER GUIDANCE

Include a general overview of your operation at the beginning of your plan, describing the following:

- How long you have been in operation
- Your growing practices (organic, conventional, biodynamic, hydroponic, etc.)
- Your primary markets
- Whether you only conduct field harvest, or if there are post-harvest activities

In addition, your food safety manual, which guides implementation of your food safety plan, should include the following components:

- Daily operational policies and Standard Operating Procedures (SOPs)
- Risk assessments required for your operation scope
- Recordkeeping logs developed for completion of activities for verification purposes

COMPLIANCE ESSENTIALS

- ☐ The food safety plan identifies physical, chemical, and biological hazards reasonably likely to occur and hazard control procedures, including monitoring, verification and recordkeeping, for all provisions covered in the audit. (Use the [risk assessment templates](#) and the [HGAP Standard](#) to guide this process.)

REQ. #	REQUIREMENT	DOC	MAN
G-2.2	The food safety plan shall be reviewed at least annually.	R	NO

G-2.2 GROWER GUIDANCE

The food safety plan shall be reviewed upon implementation and at least annually thereafter, with written verification that the review was completed.

COMPLIANCE ESSENTIALS

- ☐ Create a documentation system for annual food safety management program review. This can be as simple as creating a log to include the date of the review, who conducted the review and the components reviewed.

REQ. #	REQUIREMENT	DOC	MAN
G-2.3*	Operation has an Approved Supplier program for all incoming materials, including packaging.	R	YES

*This question is applicable to the Post-harvest Operations Scope only.

G-2.3 GROWER GUIDANCE

Implement a system to evaluate and approve suppliers of all materials and equipment used in handling crops post-harvest, such as sanitizers, packaging materials, pest control substances, etc., based on the potential hazards these materials present for causing chemical, biological or physical contamination, and the supplier's ability to supply safe products.

COMPLIANCE ESSENTIALS

- ☐ Have a current list of your approved raw material suppliers, including packaging supplies.
- ☐ Write a procedure for accepting materials from alternate sources in the event your current approved supplier is not able to provide you with the product in a timely manner.

G-3 DOCUMENTATION & RECORDKEEPING

In most cases, documentation is the only means of demonstrating to an auditor that your food safety plan is being followed. Documentation can take many forms, including written logs, pictures of daily whiteboard notes, digitally recorded cooler temperature logs, invoices, etc. Whatever their format, your records and documents must demonstrate that your standard operating procedures (SOPs) and policies (1) are being followed, and (2) address the food safety standards identified in your food safety plan. Ensure that all documentation required under your food safety program is readily available for inspection. In the event that you do not have a record available during the audit, be sure that this information is gathered within a reasonable timeframe, typically within 24 hours, or as required by prevailing regulation. In such a case, you will determine with the auditor how to submit this information once you have obtained it. Documents and records may be maintained in hard copy on-site or at an off-site location, or electronically.

G-4 WORKER EDUCATION & TRAINING

You must provide an effective worker education and training program for all individuals that work directly in contact with produce during harvest and post-harvest activities. New employees must complete a training program prior to beginning work; refresher trainings must be conducted at least annually, and as needed during the growing season if your food safety plan requires it, to make sure all workers understand food safety risks and how they can reduce risks while working. Workers must also have the resources required to properly do their jobs. General health and hygiene policies are an important component of the education and training program and should be the primary training focus.

Auditors assess more than food safety.

All food safety programs require compliance with applicable local, state and federal regulations. The Harmonized GAP Standard references “prevailing regulations”, referring to regulations pertaining to pesticide use and disposal, adequate toilet facilities and break areas, the Food Safety Modernization Act for farms that are covered by the law, etc. This is not a comprehensive list, so consider all regulations that may be implicated in any checklist items.

G-4. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
G-4.1	All personnel shall receive food safety training.	R	YES

G-4.1 GROWER GUIDANCE

All employees in your operation need to be trained on your food safety policy and plan, and should also receive training on sanitation and personal hygiene as appropriate to their job responsibilities. Training should take place upon hire, and refresher training must take place as prescribed in your food safety plan. You must document all training presentations and activities, including the names of the employees participating. A food safety responsible individual may conduct the employee trainings required in G-4.1.

COMPLIANCE ESSENTIALS

- ☐ Keep verification of all training activities on file, including topics covered during the training and participant names and signatures. If you rely on food safety trainings provided by other organizations to train any of your employees, obtain copies of those employees’ completion certificates for those courses.

REQ. #	REQUIREMENT	DOC	MAN
G-4.2	Personnel with food safety responsibilities shall receive training sufficient to their responsibilities.	R	YES

G-4.2 GROWER GUIDANCE

The food safety plan shall be reviewed upon implementation and at least annually thereafter, with written verification that the review was completed.

COMPLIANCE ESSENTIALS

- ☐ Create a documentation system for annual food safety management program review. This can be as simple as creating a log to include the date of the review, who conducted the review and the components reviewed.

G-4.2 Scenario

During a field audit, the Auditor asked the Field Supervisor to describe the recent food safety related trainings he had received. The Field Supervisor, who was designated as a food safety responsible individual in the farm’s food safety plan, stated that trainings are conducted on an ongoing basis in the field, and the farm Food Safety Manager confirmed the Supervisor’s statement. The Auditor observed a bottle of hand sanitizer in a truck located near the production area and asked the Field Supervisor if hand sanitizer could be used in place of handwashing. The Field Supervisor answered “yes”, which is not correct, suggesting that the farm’s trainings had not have been effective, or that the food safety plan failed to address the proper use of hand sanitizers. During the review of food safety program documents, the Auditor discovered that no food safety trainings were documented for the Field Supervisor, although there was a written policy in place that using sanitizers may not replace proper handwashing.

Solution: The Food Safety Manager must document food safety trainings conducted on the farm. It is acceptable to conduct hands-on food safety trainings with an employee who is responsible for food safety, and food safety education is often an ongoing process in the field, which may be impractical to document. However, during an audit you must be able to provide documentation of basic training on your food safety policies for the team members who are responsible for enforcing those policies. For training activities for the Field Supervisor, whether in the field or not, keep a record of trainings that cover food safety policies and require the employee sign documentation that he received that training.

REQ. #	REQUIREMENT	DOC	MAN
G-4.3	Contracted personnel are held to the relevant food safety standards as they would be as employees.	R	YES

G-4.3 GROWER GUIDANCE

The standard states that contracted personnel must be trained to the same food safety requirements as employees doing the same work would be. The operation must have procedures and/or records to verify that contracted personnel are aware of all relevant food safety requirements, such as signage in areas where harvest and post-harvest activities take place, toilet facilities, and break areas. If contracted personnel are on-site during an audit, the auditor may interview the contractor crew chief to determine his/her food safety competency. General health and hygiene policies should be the main focus of contractor training. Hanging signage and having the general health and hygiene policies posted throughout the operation is verification of compliance with this standard.

COMPLIANCE ESSENTIALS

- ☐ Post printed general health and hygiene policies throughout the operation, and in a language contracted staff can understand. This may include signage about handwashing, use of designated break areas for eating, requirements for personal protection equipment, and other signs that can act as constant reminders of essential food safety practices.
- ☐ A [Visitor Sign-in Record](#) is not required specifically in the standard, but may be used to satisfy the records requirement for this question. This log can include a statement that the visitor fully understands all health and hygiene requirements and agrees to abide by them.

G-5 SAMPLING & TESTING

If you have identified risks that require microbiological or chemical testing as a preventive measure, the standard requires that you use a Good Laboratory Practices (GLP) certified lab for that testing, and that the lab applies validated methods for detecting or quantifying the organisms or chemicals that you are concerned about. Sample collection procedures will vary depending on the lab's validation method, so once you identify an approved lab, make sure it provides you sample collection instructions. You must document your sample collection, testing results, and actions taken to correct any variations or non-conformances, and maintain those records for two years. The HGAP standard requires you to have a written procedure governing any testing you perform that covers the test frequency (monthly, annually, etc.), the sampling methods, the test procedures, and the actions to be taken based on the results.

G-5. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
G-5.1	Where laboratory analysis is required in the Food Safety Plan, testing shall be performed by a GLP laboratory using validated methods.	R	YES

G-5.1 GROWER GUIDANCE

Laboratories must undergo a Good Laboratory Practices (GLP) audit to be accredited for conducting certain tests. GLP laboratories will have verification of their certification, including the specific scope of the certification. You should obtain this information in writing from the laboratory to verify its credentials **prior** to submitting samples, and maintain a record of the lab's certification in your food safety manual. Larger laboratories may make this information available on their websites. Acceptable laboratory certifications include a GLP audit certificate, or proof of participation in a laboratory

Proficiency Testing Program (PTP) that shows the lab uses scientifically valid testing methods for detecting or quantifying the target organism(s) or chemical(s) that your food safety plan addresses. Common PTP certifications to look for include AOAC, A2LA or the Food and Drug Administration's BAM.

COMPLIANCE ESSENTIALS

- ☐ Keep the GLP or other pertinent laboratory certificates (ISO 17065, AOAC, BAM) or other supporting documentation for your chosen laboratory on file.

REQ. #	REQUIREMENT	DOC	MAN
G-5.4	All required testing shall include test procedures and actions to be taken based on the results.	R	YES

G-5.4

GROWER GUIDANCE

For preharvest water, your [Water System Risk Assessment](#) will dictate the necessity and frequency of any water testing program for microbial hazards, based on likelihood of microbiological contamination of the water source (surface, well, or public supply) and application methods used (frost protection spray, overhead irrigation, drip irrigation, fertigation, pesticide application spray, etc.). From that risk assessment you will build your water risk management plan for preharvest water, which must cover the following:

Water Risk Management Plan for Preharvest Water

- Testing frequency for each water source
- Acceptable microbial water quality threshold
- Sampling methods
- Test procedures
- Actions you will take if the test results exceed the threshold for microbial hazards as identified in your food safety plan

Water test results must be kept on file according the record retention policy stated in your food safety plan. A [Water Source Testing Record](#) can be utilized as a quick reference document that will assist in ensuring your water testing frequencies and corrective actions are documented.

G-5.4 Scenario

Microbiological testing of surface water was conducted at regular frequencies as stated in the farm's food safety plan. Results from the most recent lab analysis showed a surface water source had greater quantities of generic *E. coli* than the level allowable under the food safety plan. Following its water risk management plan, the farm did not irrigate crops from this surface water source during the period between receipt of the test results and the audit. However, the farm did not document this corrective suspension of irrigation. The auditor did not accept verbal verification because the standard requires a record. **This resulted in an automatic fail of the audit.**

Solution: The farm should have maintained an irrigation log to record irrigation activities or a completed [Notice of Unusual Occurrence and Corrective Actions Form](#) stating the event (noncompliant water test results) and corrective action taken; OR made a similar record of the situation and how it was resolved. Making this record should have been included in the water risk management plan as an action step in the event of noncompliant water test results.

G-6 TRACEABILITY

A documented traceability program ensures that in the event of a recall your produce can be traced at least one step forward (to a wholesale buyer) and one step back (to the source of the produce or any production inputs). The standard requires you to conduct a traceability exercise annually, locating 100 percent of the products shipped to recipients (excluding direct-to-consumer sales) within 4 hours, or as required by applicable regulations. **The exercise may be conducted during an audit**, although this is likely to make the audit longer and therefore more expensive.

Direct-to-consumer sales are exempt from the one step forward traceability requirement, but you must still be able link produce sold through direct-to-consumer channels with the field source of that produce and the inputs used to grow it.

G-6. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
G-6.1	A documented traceability program shall be established.	WP, R	YES

G-6.1 GROWER GUIDANCE

Traceability can easily be accomplished through existing records, including field maps/numbers, and input records (fertilizers, soil amendments, fertilizers, seeds/transplants, etc.) for trace-back; and harvest records and invoices or bills-of-lading for trace-forward. Minimum requirements for traceability system records include the date of harvest, quantities harvested, field or block numbers, and transporter and non-transporter data. Keep records of all data necessary to successfully conduct a traceability exercise and test the system on a regular basis as prescribed in your food safety plan. Make sure you have tested the system to ensure 100% reconciliation of the product as required in item G-6.2 of the standard. A traceability exercise is one of the first steps in conducting a mock recall.

COMPLIANCE ESSENTIALS

- ☐ Implement a proven traceability program that allows for adequate trace-back and trace-forward of the product being distributed through wholesale channels.

G-7 RECALL PROGRAM

A recall program is a written plan of action that is constructed, tested and evaluated to ensure you can efficiently identify all products you have shipped in the event that a potentially harmful food product has been distributed to consumers. The program must be prepared, implemented, reviewed and tested on an annual basis to ensure everyone with recall team responsibilities understands his or her role and responsibility in the event of a recall. The recall plan must incorporate the steps you will take to notify direct-sales customers of the need to dispose of contaminated product. This is accomplished through an annual mock recall exercise.

G-7. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
G-7.1	A documented traceability program shall be established.	WP, R	YES

Don't call it a mock recall when talking to customers.

When testing your recall program, there is no need to risk unnecessarily alarming or confusing your customers by using the word 'recall.' You don't want to take the chance that the person you talk to doesn't hear the word 'mock' and only hears 'recall.' Using terms like 'traceability system verification' or 'traceability exercise' can help you avoid a costly misunderstanding.

G-7.1 GROWER GUIDANCE

Establish your recall team, and develop a written recall plan, including (1) an up-to-date list of customers, local, state and federal regulators and other essential contacts that you would need to notify in the event of a recall, and (2) a communication plan to inform those customers and contacts about recall in a timely manner. The standard requires that a mock recall be conducted annually, following the instructions in your recall plan, and include a traceability exercise.

COMPLIANCE ESSENTIALS

- Designate a recall team, including individuals with different roles within your operation (management, production, shipping/receiving, sales/marketing), and any lawyers and outside food safety experts you work with.

Six Steps for Conducting a Mock Recall Exercise

Step 1: Confirm contact info for all recall team members.

Step 2: Determine the product and lot number that will be used for the mock recall.

Step 3: Determine the quantities involved in the lot and the amount of product in the marketplace, using your traceability and inventory systems, and identify the customers who have received the product.

Tip: Invoices are the best place to access this information. The lot numbers and customer contact info should already be recorded on your invoices beside the product description as part of your traceability program.

Step 4: Contact a customer that received this product by phone and explain to them that you are in the process of testing your product traceability systems. Tell them that you will be sending a follow-up email that you need them to respond to.

Tip: If multiple customers received the same lot number, it is not necessary during the mock recall to contact them all.

Step 5: Send an email to the customer(s) you have chosen for the mock recall (see example below).

Dear Buyer,

As part of our food safety program, we conduct a traceability exercise on an annual basis. We have chosen to analyze lot number B1071617, 10# Broccoli, of which you received 4 cases. Please respond to this email letting me know how many cases you currently have in stock and how many have been sold.

It is important that you respond to this email as soon as possible. Our food safety program requires that we are able to trace all products within 4 hours. This is only a traceability analysis; you do not need to dispose of the product. Please distribute or consume the product as usual.

Thank you for assisting us with this exercise.

—ABC Farms

Step 6: Print confirmation email upon receipt from buyer. Complete the [Mock Recall Record](#) in your food safety manual. Attach the email to your Mock Recall Record and maintain with your recordkeeping.

G-8 CORRECTIVE ACTIONS & FOOD SAFETY INCIDENTS

When conducting a self-audit (see G-9 below) or when an incident occurs, a corrective action for any noncompliance identified must be made as soon as possible. A **noncompliance** is where expected standards have not been met, such as: staff not following hygiene practices, products not meeting specification, contamination problems, or customer complaints. The corrective actions may have limited value if they do not address the root cause of the food safety related incident. All noncompliances must be investigated to understand the cause so that a preventive action can be taken to prevent it from recurring and avoid future corrective actions.

All corrective actions should include the determination of the cause(s), and an action plans(s) to address the immediate issue(s) regarding the non-conformance; the individual(s) responsible; the corrective action(s) taken; the timeline to take corrective action(s); and the development of preventive actions to help avoid future noncompliance, if necessary.

G-8. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
G-8.1	The Operation shall have documented corrective action procedures.	WP, R	YES

G-8.1 Scenario

A farm's procedure for post-harvest wash water included adding peracetic acid (PAA) to the wash water as a sanitizer, and monitoring the water every 30 minutes using test strips to verify the PAA concentration remained at its effective level of between 60 and 80 parts per million (ppm). However, the farm did not have a written plan for what to do if readings were outside those limits.

During an audit, the Auditor asked to see a demonstration of the use of test strips, and the results showed a PAA concentration of 10 to 30 ppm. The farmer verbally described the corrective actions that the operation would take as a result of the deviation, the first step being to retest the wash water. However, when the farmer attempted to retest, he discovered all the test strips available onsite were expired. This failure indicated that the farm didn't have a functioning corrective action process; the Auditor marked G-8.1 Immediate Action Required, leading to an automatic failure of the audit.

Solution: Put corrective action procedures in written Standard Operating Procedures (SOPs), and use the process of writing the SOPs to identify everything necessary for the corrective actions to actually resolve a problem. In this case, the foundation of the corrective action procedure was to have working test strips. The exercise of putting corrective action procedures in writing could have triggered the operation to include a process to track expiration dates of the monitoring equipment that the rest of the correction process relied on.

G-8.1 COMPLIANCE ESSENTIALS

- ☐ Document a corrective action procedure within your food safety program, including the individual responsible for overseeing a corrective action, and methods and timelines to address the noncompliance.

G-9 SELF-AUDITS

A self-audit helps evaluate the food safety system you have in place and confirm standard requirements are met, and is a great tool to improve performance. An effective self-audit will find noncompliances with the standard: It is highly unlikely that your food safety program is perfect. The self-audit process should help you identify potential enhancements of your program, and therefore support your food safety policy goal of continuous improvement.

A self-audit must be conducted at least annually, or when a change within your process takes place. For example, if you previously field-packed product that required no washing, but now have to wash that product to meet buyer specifications, a self-audit is needed.

A self-audit can be customized to meet the needs of your operation, but if you are undergoing a USDA HGAP audit, the [HGAP Checklist](#) is the best tool for conducting the self-audit and ensuring you meet the requirements of the standard.

G-10 WORKER HEALTH/HYGIENE & TOILET/HANDWASHING FACILITIES



Adequate restroom facilities and hand wash stations with signage

Worker health and hygiene are important in ensuring that the employees do not contaminate product. Your operation's personal hygiene and handwashing policies not only apply to you and your employees, but to visitors, buyers, product inspectors, auditors and other personnel in product handling areas, including the field. The food safety responsible individual must ensure compliance with these policies by all persons in produce handling areas, including an auditor.

During an audit, the auditor may assess the effectiveness of your hygiene policies and procedures in shaping workers' behavior by interviewing an employee or by observing workers' health and hygiene practices during the audit. **It is a good idea to let employees know prior to the auditor's arrival that verification activities may include interviewing them, and that the auditor is always making visual observations while on site.**

G-10. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
G-10.2	Employees and visitors shall be made aware of and follow all personal hygiene practices as designated by the Operation.		YES

G-10.2 COMPLIANCE ESSENTIALS

- ☐ Ensure policies and procedures for worker health and hygiene practices are in place.
- ☐ Post the health and hygiene policy in clear view for visitors, buyers, inspectors, or others arriving on your farm.
- ☐ Ensure each employee has signed your health and hygiene policy and include the signed copies in your food safety manual.
- ☐ Have a system to verify that all visitors, contractors and others visiting your operation understand the policies.
- ☐ Post signs instructing people to wash their hands after each toilet visit in/ at restrooms and handwashing stations.

G-10.2 Scenario

During an audit, the Auditor observes an employee who does not appropriately wash their hands upon leaving a break area prior to returning to the production field, as required under the operation's hygiene policy. If the food safety responsible person does not address the situation upon observing this noncompliance, the auditor will likely score G-10.2 as non-compliant because the employee is not following the food safety policies and procedures in place, leading to an IAR. This could also cause concern that the operation's training program is insufficient.

Solution: The food safety responsible person or supervisor immediately speaks to the employee to note the non-conformance, instructing the employee to return to the handwashing facilities to wash her hands, and the employee complies.

REQ. #	REQUIREMENT	DOC	MAN
G-10.6	Toilet and wash stations shall be maintained in a clean and sanitary condition.	R	YES

G-10.6 GROWER GUIDANCE

Sanitary toilet facilities must be accessible to employees at all times during work hours. An auditor will observe your restrooms and handwashing stations; but even if they look and smell clean, s/he will review records as well. You must document that the facilities your employees use are regularly cleaned, sanitized, and inspected to ensure they are properly stocked and clean. If you are renting portable toilets, the service company may note service dates on a whiteboard record inside the toilet facility: Do not rely on this as a record. Such whiteboards are often erased, or the service company may

fail to keep them up-to-date. The use of invoices for service dates, and your internal records of more frequent inspections, if any, will serve as verification for question G-10.6.

COMPLIANCE ESSENTIALS

- ☐ Have your own recordkeeping system in place to track the cleaning and stocking of the toilet and handwashing facilities.

G-11 WASTE MANAGEMENT

Improperly storing or disposing of garbage can attract unwanted pests, rodents and wildlife to product handling areas, resulting in the potential for cross contamination of the produce. Cross-contamination can also occur from contaminated trash or other waste not being enclosed in its dedicated container (for example trash blowing into the fields or materials that are soiled by bodily fluids being handled improperly). Therefore, it is a best practice to implement a waste management plan for the control, storage and disposal of trash, litter, and waste in areas used for produce handling operations. Under no circumstance should trash come into contact with produce: All trash handling and removal must be conducted in a manner that does not pose a risk for produce contact.

A written waste management policy or procedure is not necessarily required, but all auditors will pay close attention to your waste management practices and verify their effectiveness through visual observations and by smell. Culled product – crops that are not marketable due to damage or flaws – is considered waste and should be disposed of properly so as not to attract wildlife or pests and rodents to produce fields or produce handling areas. Cull disposal methods include: removal from the farm along with non-vegetative litter by a waste management service; proper composting; or other means that prevent the culls from posing a risk of contamination of crops or produce handling areas.

Remove culls from active production fields.

Culled product is considered trash and should not come into contact with produce you intend to distribute. Leaving culled produce in the field may be considered a noncompliance if those culls are likely to contact produce intended to be harvested.

G-11. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
G-11.1	Operation has implemented a waste management plan.	WP, R	YES

G-11.1 COMPLIANCE ESSENTIALS

- ☐ Implement procedures that minimize the potential for trash, litter, or waste to attract or harbor pests, and that protect against contamination of produce, food contact surfaces, areas used for produce handling activities, water sources, and water distribution systems.
- ☐ Ensure employees are trained (or retrained when necessary) on the waste management procedure.

REQ. #	REQUIREMENT	DOC	MAN
G-11.2	Trash shall not come into contact with produce.	WP, R	YES

G-11.2 COMPLIANCE ESSENTIALS

- ☐ Make sure all trash is disposed of properly in trashcans and dumpsters with lids.

QUESTIONS F-1 TO F-14

FIELD OPERATIONS & HARVESTING

The Field Operations and Harvesting scope addresses the activities of growing and packing produce in the field or in greenhouse and indoor growing operations. Any post-harvest activities (wash/pack on-farm activities, cold storage, or transport to customer) are not covered under this scope.

F-1 FIELD HISTORY & ASSESSMENT

The previous land use of your production area, and the previous and current uses of lands adjacent to your production areas, can contribute to physical, chemical or biological contamination, and therefore a risk assessment must be conducted annually to identify any potential contaminants present on your land or entering your land from your neighbors' property. This includes indoor growing facilities such as greenhouses and hydroponic systems, and structures located on the farm.

All indoor growing and field storage buildings must be constructed and maintained in a manner that prevents contamination of produce, allows for proper cleaning and sanitation, and does not provide harborage for contaminants or pests. Any temperature-controlled areas, including coolers and staging areas, must be properly sealed and be constructed in a manner that provides adequate drainage, such as installed drains or floors that are graded to minimize standing water. Contamination of produce, raw materials and/or food contact surfaces can occur from drips or condensate that falls from fixtures, ducts, pipes and other overhead structures. Utilize drip pans to minimize this potential cross-contamination. Assess air intakes to ensure that they are not pulling airborne contaminants into your buildings from neighboring farms or other sources.

Sewage and septic systems must be maintained and continuously operated in a manner to that does not serve as a potential contamination source to produce, food contact surfaces, areas used for produce handling, water sources, or water distribution systems. An act of nature such as flooding can negatively impact a sewage or septic system, and is considered a significant event that would trigger reexamination of the system and monitoring to ensure the system remains functional.

F-1.1 Scenario

In preparation for an audit, a blueberry grower realized during a field risk assessment that the neighbor had recently built poultry houses on immediately adjacent land, within 75 feet of the corner of the blueberry production fields. The poultry houses' ventilation fans forced air from the houses directly onto the blueberry crop, presenting a high risk for airborne pathogens to contaminate the berries.

Solution: The blueberry farm conducted research, and sought expert opinions, on the distance needed to protect the crops from the potential contaminants from the poultry houses. They found there was a lack of scientific evidence regarding how far pathogens can travel under such circumstances. Based on the close proximity of the fans to the blueberry production area, the farm decided to exclude over 50 bushes from harvesting, but kept them in place to act as a barrier between the houses and the remainder of the field. They documented the decision in their [Land Use History and Adjacent Land Risk Assessment](#) and marked the area of excluded bushes with 'do not harvest' signage.

F-1. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-1.1	The food safety plan shall, initially and at least annually thereafter, evaluate and document the risks associated with land use history and adjacent land use, including equipment and structures.	A	YES

F-1.1 GROWER GUIDANCE

The guidance provided previously in this Handbook on conducting a risk assessment is useful in fulfilling the requirements to this question. Use the [Land Use History and Adjacent Land Risk Assessment Template](#) and incorporate it into your food safety program.

COMPLIANCE ESSENTIALS

- ☐ Annually conduct and document in writing a land use history/adjacent land use risk assessment, including the likelihood that a contamination event might occur.

F-2 AGRICULTURAL CHEMICALS/PLANT PROTECTION PRODUCTS

Agricultural chemicals, whether conventional or organic, have an important part in land management and play a role in protecting plants from damage caused by insect pests, weeds or disease. Biocides, waxes and plant protection products (PPPs) used in post-harvest handling activities are also considered agricultural chemicals. Many of these materials are hazardous and present risks to human and animal health and the environment if they are not applied consistently with label instructions or for uses for which they are not intended.

F-2. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-2.1	Use of agricultural chemicals shall comply with label directions and prevailing regulation.	R	YES

F-2.1 COMPLIANCE ESSENTIALS

- ☐ Maintain all labels for agricultural products currently in use, and train employees who use the products on their proper use and application.
 - ☐ All records of agricultural use are maintained in an organized fashion and accessible during the audit.
-

F-3 WATER SYSTEM DESCRIPTION

Water is well-suited to be a carrier of pathogens that can contaminate crops, and so water that directly contacts the edible portion of crops is a key risk to address in your food safety plan.

A water system description addresses all water sources and the areas that the water sources serve. The description can be a written narrative, a map, photographs or drawings, or a combination. A map is especially handy for showing the water system for easy reference, and can also serve to designate field numbers and structures on the farm. Whatever the format, the description should identify the location of the water source(s), any permanent fixtures of the system (including any above ground or underground water storage tanks), and the flow of water through it. Permanent fixtures, including wells, gates, reservoirs, valves, returns and other above-ground features must be easily identifiable within the system description, including their field location, or location within hydroponic, aeroponic or aquaponic operations. During the audit, the auditor will review the water system description and/or map and verify its accuracy. All water must be sourced from a location and in a manner that is compliant with prevailing regulation for the intended use of the water.

Water systems that are intended to convey untreated human or animal waste must be separated from conveyances utilized to deliver water used in crop production and harvesting. Noncompliance with this requirement is an IAR and results in automatic failure to pass the audit.

F-3. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-3.1	A water system description shall be available for review.	WP	YES

F-3.1 COMPLIANCE ESSENTIALS

- ☐ Create a map or other clear description of all water sources and distribution systems to identify the flow of the water through your operation.

F-4 WATER SYSTEM RISK ASSESSMENT

Conducting a water system risk assessment will allow identification of potential risks associated with your water system. Start by identifying the water source(s), taking into consideration what the water will be used for. Microbial contamination from a water source is the primary concern; however, wells and open water sources can also become contaminated by misuse of chemicals, as well as physical contaminants. Surface water sources, such as ponds, lakes, rivers, reservoirs, and canals, should be assessed to determine if an adjacent land use, or wildlife presence, creates any potential contamination risk. Wells must be assessed to ensure that the casings are intact and effectively preventing ground leeching of pathogens into the well water.

When assessing water risks, consider whether you are using irrigation methods that result in direct water contact with the edible portion of the crop, such as overhead irrigation (high-risk), or that limit such contact, such as drip irrigation (low-risk). This will determine the frequency with which your water should be tested to meet microbial water standard as defined in your food safety plan. The time between irrigation and harvest may also play a determining factor in water quality impacted by UV rays and drying.

F-4. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-4.1	An initial risk assessment shall be performed and documented that takes into consideration the historical testing results of the water source, the characteristics of the crop, the stage of the crop, and the method of application.	A	YES

F-4.1 GROWER GUIDANCE

You must conduct a water system risk assessment at least annually, but the USDA HGAP standard requires that you review that assessment seasonally, and any time there is a change made to the system or a situation occurs that could introduce contamination in the system, such as flooding. The guidance provided previously in this Handbook on conducting a risk assessment is useful in fulfilling the requirements to this question. Use the [Water System Risk Assessment Template](#) and incorporate it into your food safety program.

F-5 WATER MANAGEMENT PLAN

Build your water management plan from the results of your water system risk assessment. A water management plan is a written procedure to minimize contamination risks, taking into account your water sources, your intended uses for the water, and your methods of delivery. The plan should include: water testing/sampling frequencies; acceptable microbial load limits; monitoring procedures; verification activities; corrective actions; preventive actions to avoid contamination; and documentation activities. You must review the management plan following any changes made to the water system risk assessment, and adjust the management plan as necessary to ensure microbial water quality.

All employees whose duties include overseeing the water system must be trained according to those responsibilities, and retrained in the event there is an oversight leading to potential contamination in the water system.

F-5. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-5.1	There shall be a water management plan to mitigate risks associated with the water system on an ongoing basis.	WP	YES

F-5.1 GROWER GUIDANCE

The auditor will review the water management plan for accuracy and completeness relative to the risk assessment results. This will include verifying that a water testing program is in compliance with the risk assessment and current industry standards or prevailing regulations, and that the water testing program is outlined in the water management plan.

REQ. #	REQUIREMENT	DOC	MAN
F-5.2	Water testing shall be part of the water management plan, as directed by the water risk assessment and current industry standards or prevailing regulations for the commodities being grown.	WP	YES

F-5.2 GROWER GUIDANCE

The standard does **not** specifically dictate the target organism that your production water should be tested for; the acceptable limits for any target organism; or the frequency of testing. You must make these decisions based on your water risk assessment, and any regulatory requirements applicable to your farm. For outdoor production systems, generic *E. coli* testing, with results reported with a numeric count, not merely presence/absence, is likely the best target organism to measure.



Example of a portable water treatment system used for irrigation

COMPLIANCE ESSENTIALS

The water management plan must contain:

- ☐ Preventive controls
- ☐ Monitoring and verification procedures
- ☐ Corrective action plans
- ☐ Documentation of:
 - Water test results (R) (MAN) (F-5.3)
 - [Post-harvest Water Treatment and Monitoring Record](#) (R) (MAN) (F-5.4)
 - Post-harvest handling records (to document microbial die-off or removal rates) and monitoring records (R) (MAN) (F-5.5)
 - Supporting documentation for alternate approaches to regulatory microbiological testing (R) (MAN) (F-5.6)
- ☐ Circumstances that will trigger review of the plan
- ☐ Training requirements
- ☐ Written water test procedure

F-6 ANIMAL CONTROL

Farmers obviously want to keep wildlife from eating cash crops, but there are food safety risks to consider as well. Auditors understand that wildlife exists on a farm and that mitigation strategies may not always be effective. When planting crops, you should take into consideration that there may be areas you need to exclude from production. For example, if you have power lines that run over a field, this is a place where birds will perch, likely resulting in bird droppings on any produce located under the power lines.

GROWER GUIDANCE

The auditor will review: The written risk assessment to ensure it has been performed for the current season and is complete; your monitoring records to ensure the frequency of monitoring is consistent with the schedule written in your food safety plan; and any corrective or preventive actions taken to address instances of animal intrusion.

COMPLIANCE ESSENTIALS

- ☐ Conduct an [Animal Control Risk Assessment](#) of the growing fields and adjacent land, prior to each growing season, focusing on domestic and wild animal activity, noting crop characteristics, type and approximate number of animals, proximity to the growing field, water sources and other relevant factors. (A) (MAN) (F-6.1)
 - ☐ Routinely monitor and document findings of animal activity within growing fields, and adjacent lands. (R) (MAN) (F-6.2)
 - ☐ Establish an SOP that includes actions to prevent or minimize the potential for contamination of produce with pathogens from animal feces, including domesticated animals used in farming operations. The SOP must contain a process for documenting any mitigation or corrective actions, as well as preventive actions to prevent a reoccurrence. (WP) (R) (MAN) (F-6.3)
-

F-7 SOIL AMENDMENTS

Biological soil amendments are any soil amendments containing biological materials such as stabilized compost, manure, non-fecal animal byproducts, peat moss, pre-consumer vegetable waste, table waste, agricultural tea, or yard trimmings, alone or in combination. Animal-based soil amendments — Biological Soil Amendments of Animal Origin (BSAOAOs) — are amendments that include untreated cattle manure, poultry litter, swine slurry, horse manure, bone and blood meal, and sewage sludge biosolids, and are considered potential sources of microbial contaminants. Use of BSAOAOs is acceptable for use under the USDA HGAP standard when treated and/or handled properly so that they do not become likely sources of contamination to produce, food-contact surfaces, storage areas, agricultural water sources and distribution systems, or non-animal-origin soil amendments.

When using raw manure or composted manure fertilizer, it is important to use best management practices to reduce risk from pathogens, such as: proper storage to prevent introduction of pathogens into the material; thorough incorporation of the material into the soil; maximizing the time between application of an untreated material to the field and harvest of produce crops; following proper composting practices; and keeping records of the application of the material. Manure that is composted improperly or incompletely may contain pathogenic bacteria, and therefore should be treated as raw manure. Following the USDA National Organic Program standard for incorporating raw manure into the soil — 120 days prior to harvest for crops that are in contact with the soil, or 90 days prior for crops that do not come into contact with the soil — will meet the USDA HGAP standard, if you maintain proper documentation of your application of the material.

F-7. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-7.1	The food safety plan shall address soil amendment risk, preparation, use, and storage.	A, R	YES

F-7.1

COMPLIANCE ESSENTIALS

- ☐ Conduct a [Biological Soil Amendment of Animal Origin Risk Assessment](#) that considers preparation, use and storage of animal-based soil amendments.
- ☐ For any animal-based soil amendments used, maintain records of composition, dates of treatment, treatment methods used, and application dates.
- ☐ Maintain records that provide evidence of adequate processing to eliminate pathogens of human concern. For purchased amendments, this documentation can be in the forms of a Letter of Guarantee, Certificate of Analysis (COA), or test results. For on-farm composting, records must be maintained verifying adequate processing (time and temperature) demonstrating compliance with process or microbial standards as described in your food safety plan.
- ☐ For any animal-based soil amendments used, maintain records of composition, dates of treatment, methods utilized and application dates.

Best Practices for Raw Manure Applications

- Raw manure should be incorporated into the soil at least 2 weeks prior to seeding or transplanting.
- Raw manure should be applied and incorporated into the soil at least 120 days prior to harvest for crops that do come into contact with the soil.
- Raw manure should be applied and incorporated into the soil at least 90 days prior to harvest for crops that do not come into contact with the soil.
- Records of raw manure application should include the dates of application and the planting/harvesting of crops grown in the crop production area.

Based on the USDA National Organic Program (NOP) Standards.

F-8

VEHICLES, EQUIPMENT, TOOLS & UTENSILS

F-8. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-8.2	Equipment, vehicles, tools and utensils used in farming operations which come into contact with product are in good repair, and are not a source of contamination of produce.	WP, R	YES

F-8.2

GROWER GUIDANCE

The auditor will observe production practices during the audit, including the use of vehicles, equipment, tools, and utensils that may potentially come into contact with produce, for evidence of food safety risks. All records pertaining to the maintenance, cleaning and sanitation procedures will be reviewed. Where water tanks are in use, the auditor will review tank cleaning procedures for steps to prevent contamination of produce.

COMPLIANCE ESSENTIALS

- ☐ Develop and implement an SOP for the cleaning, sanitizing, and storage and handling of all food contact surfaces to reduce and control potential for contamination. The SOP must include equipment and vehicles that are in the field infrequently.
- ☐ Maintain records of the date and method of cleaning and sanitizing of equipment.
- ☐ Maintain records of maintenance for all vehicles and equipment that may impact food safety.
- ☐ Include in the SOP a written procedure to address spills and leaks (fuel, oil, hydraulic fluids), which might occur during equipment and vehicle operation in the field.

HARVESTING

F-9

PREHARVEST ASSESSMENT

A pre-harvest risk assessment is often considered a nuisance for growers. But when considering this task, realize that you are always out looking at your crops, scouting for pests and disease, and evaluating yields. Consider incorporating the requirement to conduct an assessment prior to harvest with these activities to create efficiencies within your operation. You must consider any conditions that may be reasonably likely to result in physical, chemical, or biological contamination of the produce during the assessment, and document any findings.

F-9. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-9.1	A preharvest risk assessment shall be performed.	A	YES

F-9.1

GROWER GUIDANCE

The auditor will: review the written risk assessment to ensure it has been performed for the current season and is complete; review monitoring records to ensure the frequency of monitoring is consistent with the schedule written in your food safety plan; and review any corrective or preventive actions taken in response to findings of preharvest assessments.

COMPLIANCE ESSENTIAL

- ☐ Conduct a [Preharvest Risk Assessment](#), considering all potential contamination sources. Ensure that the food safety plan includes policies and procedures to mitigate food safety risks identified during the risk assessment.

Make the most of pre-harvest assessment.

As you write your food safety plan, consider additional monitoring activities that could be incorporated into your pre-harvest risk assessment, listing these activities at the top of the page, and verifying the activities are conducted by initialing and dating in multiple blocks at the bottom of the page. This creates one document that may be used for at least 30 days of recordkeeping, covering many tasks. Record any non-conformance found on a [Notice of Unusual Occurrence and Corrective Actions](#) form.

WATER/ICE USED IN THE HARVESTING & POST-HARVEST OPERATIONS

Water and ice used during harvest activities in the field that directly contacts the harvested crop, or that is used on food contact surfaces, must meet the EPA Drinking Water Standards, with zero detectable generic *E. coli*. Relevant harvest activities could include washing produce prior to field packing, and top-icing within a consumer package as a cooling aid. These activities can amplify cross-contamination risks because water may become contaminated during use. Options for water to use to meet the microbial standard include: municipal drinking water; water from a source on your farm that has been tested to have no detectable generic *E. coli*; and treated water that is tested to have no detectable generic *E. coli*. Sanitizer use in a field dump tank is required for preventing cross-contamination from organic matter settling in the water during use, so a wash water quality monitoring and record system must be in place to ensure the efficacy of the sanitizer.

In the event that deliberate flooding is used during harvest activities (such as for cranberries, watercress), special consideration or variances may be made. Ice and water must always be sourced/manufactured, transported, and stored under sanitary conditions. If ice machines are in use, testing of the ice may be required to ensure that the machine does not present a contamination risk.

COMPLIANCE ESSENTIALS

- ☐ Keep water test results for all water sources and for ice on file. (R) (MAN) (F-10.2)
- ☐ Incorporate water treatment and monitoring procedures into SOP if using recirculated water. (R) (MAN) (F-10.3)
- ☐ Address the condition and maintenance of the water delivery system in your SOP, including ice machines. (R) (MAN) (F-10.4)
- ☐ Maintain water temperature monitoring procedures for commodities with specific water temp requirements. (R) (F-10.5)

Sanitizer, water change schedule key to recirculated water management.

Washing fruits and vegetables using recirculated water can amplify a small problem into a huge problem if not properly managed. Use an approved sanitizer, following the labeled instructions appropriate for the crop, in a least one step of the wash process. Regular monitoring and documenting of the actual free sanitizer levels in wash water is important. Accumulation of organic matter, such as dirt, in recirculated water not only reduces the overall free sanitizer levels, but may interfere with the operation of some sanitizer testing equipment. Create a water change schedule and document the process on a regularly scheduled basis (e.g., hourly).

F-11 CONTAINERS, BINS & PACKAGING MATERIALS

The USDA HGAP audit covers the sanitary use and maintenance of harvest containers, bins, and packaging materials that come into contact with produce. Storage areas used for these materials must be clean and sanitary, free from pests and rodents, and be organized in a manner to allow an auditor to examine them easily. Harvest containers, totes, bins, packing materials and pallets should be visually inspected, clean and intact, and free of any foreign materials prior to use. An auditor will look for a written policy on that inspection process; although the written policy is not a mandatory item, it is an easy area to pick up (or lose) a 'compliant' finding during your audit. All harvest containers must be appropriate to the commodity being harvested and suited for their intended purpose, and all containers designated for harvesting produce must not be used for any other purpose, unless they are clearly marked or labeled for that purpose.

F-11. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-11.2	Operation has written policy regarding inspection of food contact containers prior to use.	WP	NO

F-11.2 COMPLIANCE ESSENTIALS

- ☐ Include a one-sentence policy that "all harvest containers, bins and packaging materials will be visually inspected to ensure they are clean, intact, and free of foreign materials prior to use" in your food safety plan.
- ☐ Apply the policy, and ensure these materials appear to be clean prior to use. Auditors can tell from their visual observations when containers have not been cleaned and sanitized on a regular schedule.

REQ. #	REQUIREMENT	DOC	MAN
F-11.3	Operation has a written policy regarding acceptable harvesting containers.	WP	YES

F-11.3 COMPLIANCE ESSENTIALS

- ☐ Use only harvest containers that will not cause damage to the harvested produce in the field or during transport.

REQ. #	REQUIREMENT	DOC	MAN
F-11.4	Operation has written policy prohibiting use of harvest containers for non-harvest purposes.	WP	YES

F-11.4 Scenario

During an audit, the Auditor saw harvest boxes being used for storage of packing supplies, even though the farm's food safety plan included a written policy prohibiting the use of harvest containers for non-harvest purposes.

Solution: Noticing the noncompliance, the farmer explained that he was aware that using produce boxes for other purposes was not allowed under the standard. As the farmer was talking, having a sharpie in hand, he labeled the boxes "DO NOT USE". The Auditor conducted additional observations of other storage areas to ensure harvest boxes were not being used to store packing supplies and interviewed other farm workers to ensure they were familiar with the written policy. The Auditor accepted this action and did not mark F-11.4 as a CAN because the operation had demonstrated understanding of the requirement and took a correction to address an isolated incident. If the auditor had observed other misuse of harvest containers or workers couldn't demonstrate understanding of the written requirement, this item would have been marked as CAN, leading to an automatic failure of the audit.

F-12 FIELD PACKING & HANDLING

Harvesters must be trained to harvest crops in ways that minimize damage and waste, with minimal handling, to maintain the quality of the produce and minimize scarring and damage that could become a food safety issue. When produce becomes contaminated while on the plant, or after harvest, the produce must be disposed of properly. If a harvested produce item does not grow in contact with the ground, but is dropped on the ground, that item must be culled. Contact of cut surfaces of harvested produce, such as the stem end of a head of lettuce, with the soil should be avoided. When cloths or other cleaning materials are used to wipe produce prior to packing, you should have a procedure in place to prevent cross-contamination, and train workers to apply it; single-use towels would be a lower cross-contamination risk than multi-use ones. Glass, metals, rocks and other physical contaminants are likely present in crop fields, so during harvesting and field packing produce and containers should be visually inspected for these hazards, and any physical contaminants removed upon discovery.

COMPLIANCE ESSENTIALS

- ☐ Properly train harvest workers not to harvest, or to cull, visibly contaminated, damaged or decayed produce. (WP) (MAN) (F-12.1)
 - ☐ Have a written SOP regarding produce and packing material that comes into contact with the soil, including that cut surfaces of harvested produce will not come into contact with soil. (WP) (MAN) (F-12.2)
 - ☐ Ensure that the packaging is appropriate to the commodity being harvested and suited for its intended purpose. (MAN) (F-12.5)
-

F-13 POST-HARVEST HANDLING & STORAGE (FIELD PRIOR TO STORAGE OR PACKINGHOUSE)

Once produce is harvested, it must be handled in a manner that prevents damage or contamination during post-harvest handling or storage. The auditor will make visual observations to verify that harvested produce is handled in a manner to protect it from becoming contaminated. All materials that come into contact with the produce must be clean, sanitized when possible, in good repair, and stored in an area that does not pose a food safety hazard.

COMPLIANCE ESSENTIALS

- ☐ Train employees properly in good handling practices. (MAN) (F-13.1)
- ☐ Make sure that pallets, bins, totes, and materials that come into contact with produce during handling or storage are clean, and are sanitized if necessary and practicable. (MAN) (F-13.2)
- ☐ Store chemicals, including cleaning fluids and non-food grade lubricants, separate from harvested produce. (MAN) (F-13.3)

TRANSPORTATION (FIELD TO STORAGE OR PACKINGHOUSE)

F-14 EQUIPMENT SANITATION & MAINTENANCE

Good Agricultural Practices must be maintained through every step of the supply chain to ensure that cross-contamination does not occur. Equipment is often overlooked as a potential source of contamination. Shipping units (trucks, trailers, ATVs) must be clean, in good working order, and free of objectionable odors before loading. Additional requirements may need to be implemented for certain high-risk commodities, based on the risks associated with the operational practices. All refrigeration units (reefer trucks) used to transport produce must be in working order and not serve as a potential source of contamination during transport. The auditor will review your cleaning and ‘inspection-prior-to-loading’ procedures for shipping units, and conduct an inspection of equipment during the audit.

If loading and unloading is observed during the audit, the auditor will assess whether responsible personnel take necessary steps to minimize the potential of physical damage to produce that could impair product quality or introduce or promote the growth of pathogens. The equipment used for loading/unloading will be visually inspected for cleanliness and proper maintenance, and to ensure that it is intended for such use.

F-14. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
F-14.1	The Operation shall have a policy, written procedures, and a checklist to verify cleanliness and functionality of shipping units (e.g., trailer).	WP, R	YES

F-14.1 COMPLIANCE ESSENTIAL

- ☐ Have a written policy (SOP) in place requiring shipping units to be clean, functional and free of objectionable odors prior to loading, and requiring that refrigeration units are in working order.

QUESTIONS P-1 TO P-10

POST-HARVEST OPERATIONS

The Post-Harvest Operations scope applies to all operations that handle, process, pack, store or distribute fresh produce after harvesting takes place. A food hub, for example, would fall under this scope, as well as an on-farm packinghouse that washes, repacks, or further handles the harvested product. The scope includes sourcing product from other operations for distribution, as well as sanitation practices, post-harvest agricultural chemical use, and transportation to the customer.

P-1 PRODUCE SOURCING

Ensuring your produce suppliers are reputable and reliable demonstrates your commitment to food safety, and implementing a program for approving those suppliers is the optimal method for achieving this control. If you are aggregating produce from multiple small farms for shipment to a larger buyer, you should have an approved supplier program. Although this is not a mandatory item under the USDA HGAP standard, an auditor will assess whether you require compliance from produce suppliers with Field Operations and Harvesting scope of the standard, and failure to do so could be marked as a CAN. If you do have this policy in place, records are required for compliance: You will need to have on file proof that your supplying farms follow HGAPs in growing and harvesting the produce they provide to you.

NOTE: This requirement does not mean suppliers have undergone an HGAP audit. Rather, they should have documentation that are abiding by a food safety program for the production and harvesting of produce that is aligned with the Produce GAP Harmonization Initiative. For produce suppliers that are not HGAP audited, establish a system to verify that they implement HGAPs in growing and harvesting the crops they provide to you.

P-1. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
P-1.1	The Operation has a policy and takes affirmative steps to ensure that all fresh produce that are packed or stored in the Operation are grown following requirements in Field Operations and Harvesting harmonized standard.	R	NO

P-1.1 COMPLIANCE ESSENTIAL

- ☐ For operations that supply you with produce, obtain copies of and documentation that verifies those suppliers' compliance with the Field Operations and Harvesting scope of the harmonized standard (USDA or others).

P-2 AGRICULTURAL CHEMICALS

Agricultural chemicals applied post-harvest (e.g., biocides, waxes and plant protection products) must be registered for such use as required by prevailing regulation, which may be either a state or a federal rule. Always follow label instructions, including application rates, worker protection standards, personal protection equipment, container disposal, storage, and requirements specified for the chemical or compound. If your product is intended for export, all pre-harvest and post-harvest agricultural chemical use must take into account the requirements in the intended country of destination.

P-3 FACILITY

The building(s) where any produce handling or storage activities take place within your operation must be constructed and maintained in a manner that allows for proper cleaning and sanitation, and that does not provide harborage for contaminants or pests. Any temperature controlled areas, including coolers and staging areas, must be properly sealed and be constructed in a manner that provides adequate drainage, such as floor drains or floor grading, to minimize standing water. Contamination of produce, raw materials, and/or food contact surfaces can occur from drips or condensate that falls from fixtures, ducts, pipes and other overhead structures. Use drip pans to minimize this potential cross-contamination. Assess air intakes to ensure that they are not pulling airborne contaminants into your buildings from neighboring farms or other sources.

P-3. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
P-3.6	If applicable, Operation has a written Allergen Control Program.	A, WP	NO

P-3.6 GROWER GUIDANCE

For some people, exposure to even trace amounts of food allergens can cause very serious illness or even death. Produce that comes into contact with food allergens can cause allergic reactions, and so care must be taken to ensure that allergens are not introduced into your produce crops. Storing peanut snacks for workers, or eggs produced on farm for your personal use, in coolers with produce that is meant for sale are examples of seemingly benign activities can lead to allergen contamination.

COMPLIANCE ESSENTIALS

- ☐ Conduct an [Allergen Risk Assessment](#) to identify if there is any reasonable potential that any of the eight major allergens (wheat, peanuts, tree nuts, milk, eggs, soybeans, fish and shellfish) could be present in produce handling or storage areas.
- ☐ If you identify allergen contamination risks, write and implement an allergen control program listing the allergens and providing for segregation of those allergens from produce during storage and handling.

P-4 PEST & ANIMAL CONTROL

You must have a pest and animal control program to ensure that disease vectors are controlled in areas where produce is handled and packing supplies are stored. Domesticated animals are prohibited from packing, cooling and storage facilities, unless procedures are in place for their safe presence. Excessive pest and feral (wild) animal sightings, or excessive droppings (feces), can result in an automatic failure of your audit. Your pest control program may be managed in-house, and documented using a [Pest and Rodent Control Record](#). It is not necessary to hire a contracted pest control company.

For enclosed structures used for storage or handling of produce, the interior walls, floors and ceilings must be well maintained and free of major cracks or crevices that would allow for pest entry. If you do not have completely enclosed structures, measures must be taken to ensure that all materials and produce are protected from potential contaminants.

COMPLIANCE ESSENTIALS

- ❑ Have a written pest control program in place, including: management of storage of equipment outside or other conditions that could provide harborage for pests; and maps of pest trap locations inside and outside of the operation. (WP) (MAN) (P-4.1)
- ❑ Maintain a pest-control log, or have reports from contract pest control providers on file, that includes dates of inspection, inspection reports and steps taken to eliminate any problems. (WP) (MAN) (P-4.1)
- ❑ For applications of pesticides (insecticides or rodenticides), maintain the pest control operator's credentials on file. (WP) (MAN) (P-4.1)
- ❑ In areas where animals are prohibited (pack house, cooling and storage areas), hang signs stating pet policy procedures, or include the pet policy in the visitor/contractor policy and employee training sessions. (MAN) P-4.2
- ❑ In the event you use interior pest traps, use only non-toxic traps and pest control devices inside the packinghouse or storage building. Traps must be located so that they do not contaminate produce or food handling surfaces. **Do not use bait traps indoors.** (P-4.3)

Don't let pest traps become pest lures.

Use caution when choosing pest control options, being careful not to lure pests and rodents into your greenhouses, high tunnels and other building structures with traps baited with food. Sticky traps or hotel-type Tin-Cats without bait are recommended to avoid attracting pest and rodents that would not otherwise enter your facilities.

P-5 EQUIPMENT, TOOLS & UTENSILS

You must take steps to prevent equipment, tools and utensils from being potential sources of chemical, physical or microbiological contamination within your facility. A best practice for food contact surfaces like packing lines is to ensure they are made of non-porous materials and have smooth welds. If equipment is older and may contain areas that could harbor bacteria, be sure to implement procedures allowing for additional precautions to minimize cross-contamination to the best of your ability. Ensure that cooling, packing and other food contact equipment is installed at least 6 inches away from walls, and positioned to allow for proper inspection, cleaning and sanitation.

Only food-grade lubricants are to be used on food processing and packaging equipment, unless the manufacturer specifies that a non-food grade lubricant must be used for proper operation of the equipment. If non-food grade lubricants are present in your facility, store them so they are not a potential source of contamination to produce of food-contact surfaces.

Always ensure that equipment, tools and utensils are in good working order, and any temporary repairs to such items are permanently resolved in a timely manner. If foreign material control devices are used, be sure to include them in your [Preventive Maintenance and Sanitation Schedule](#) or other equipment maintenance program called for in your food safety plan.

P-5. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
P-5.1	All food contact equipment, tools and utensils are designed and made of materials that are easily cleaned and maintained.		YES

P-5.1 COMPLIANCE ESSENTIALS

- ☐ To the best of your ability, avoid porous surfaces (wooden broom handles, sponge rollers) that can harbor bacteria.
NOTE: The use of wood pallets and tables is acceptable if maintained in good condition, per industry standard.
- ☐ Maintain and document a schedule and procedures for repairing, cleaning, and sanitizing of all food contact surfaces used in storage and handling of produce.
NOTE: This question does not specifically require a written SOP; however the checklist compliance procedure itself states that procedures must be documented.

P-5.4

REQ. #	REQUIREMENT	DOC	MAN
P-5.4	All instruments used to measure temperature, pH, antimicrobial levels and or other important devices used to monitor requirements in this section shall be adequately maintained and calibrated at a frequency sufficient to assure continuous accuracy.	R	YES

P-5.4 Scenario

An operation undergoing an audit used walk-in coolers for cold storage that were equipped with digital thermometers. The Auditor requested verification that the thermometer had been calibrated. The operation did not have proof of calibration, but did have a temperature gun to monitor the accuracy of the digital thermometer. Monitoring records were on file and current.

Solution: The Auditor allowed the operation to demonstrate how the temperatures are monitored with the temperature gun and satisfied the requirement of P-5.4 during the audit.

P-6 MAINTENANCE & SANITATION

Scheduling regular maintenance, cleaning and sanitation of equipment on a regular basis can minimize potential contamination. Waste management, sewage or septic system monitoring, gray water disposal, and general grounds maintenance are issues within this section that the auditor will focus on, primarily through visual inspections.

P-6. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
P-6.1	A Preventive Maintenance and/or Master Cleaning Schedule, with related SOPs, shall be established.	WP, R	YES

P-6.1 GROWER GUIDANCE

Certain areas within a packinghouse are often overlooked as part of regularly scheduled cleaning procedures, such as drains in wet and dry zones, walls, ceilings, pipes, and drip pans or condensers in cold storage units. A cleaning and sanitizing schedule can be developed for certain items or areas to be cleaned less frequently than others (weekly vs. monthly). Establishing timelines and responsibilities as part of your preventive maintenance and/or master cleaning schedule is recommended.

REQ. #	REQUIREMENT	DOC	MAN
P-6.5	Food contact surfaces shall be cleaned, sanitized and maintained according to the Food Safety Plan	R	YES

P-6.5 GROWER GUIDANCE

Ensure that all cleaning agents are approved for the intended use. Be sure to include all food contact surfaces in the preventive maintenance and/or master cleaning schedule.

COMPLIANCE ESSENTIALS

- ☐ Lines used for washing, grading, sorting, or packing should be cleaned and sanitized prior to use as appropriate per the produce washing risk assessment required in P-7.4.

REQ. #	REQUIREMENT	DOC	MAN
P-6.6	Transporting equipment shall be maintained to prevent contamination of products being transported.	R	YES

P-6.6 COMPLIANCE ESSENTIALS

- ☐ Maintain transportation equipment (pallet jacks, carts, trolleys and forklifts) to prevent contamination; list them on the preventive maintenance and/or master cleaning schedule.

REQ. #	REQUIREMENT	DOC	MAN
P-6.7	Waste material and their removal are managed to avoid contamination.		YES

P-6.7 GROWER GUIDANCE

The auditor will visually inspect the perimeter of all structures used for produce handling and packaging for trash, leaves, trim, culls, waste water and other waste materials that may attract pests and rodents and so become a source of produce contamination. Ensure these areas are clean, and that grassy areas are maintained reasonably free of these conditions, including standing water.

P-7 POST-HARVEST WATER/ICE

Water sources used during post-harvest activities must be clearly identified within the water system description. The water system delivery must be maintained so as to not create unsanitary conditions, or serve as a source of pathogen contamination of produce, water supplies or equipment. All water systems used in handling finished products must be equipped with a backflow prevention device or a means to prevent cross connections between product contact water and wastewater.

COMPLIANCE ESSENTIALS

- ☐ A water system description must be on file. (R) (MAN) (P-7.1)
- ☐ Microbial test results must be on file for all water or ice that comes into direct contact with the harvested crop, or is used on food-contact surfaces. The SOP must state that the water or ice will meet the microbial standards for drinking water, or as defined by prevailing regulation, whichever is more stringent. (R) (MAN) (P-7.3)
- ☐ If used, water antimicrobial treatments must be monitored sufficiently to assure continuous control. This is especially important for recirculated water. (R) (MAN) (P-7.5)
- ☐ When using recirculated water, use an antimicrobial treatment sufficient to prevent cross-contamination from soiled water. (MAN) (P-7.6)
- ☐ If used, wash water antimicrobials or antimicrobial systems must be registered or approved by EPA, FDA or the prevailing regulatory agency for the specific intended use, and be labeled as such. (R) (P-7.7)

Make sure post-harvest water treatment agents are food grade.

Water is a high-risk route for microbiological contamination and must be monitored at all times when it comes into contact with harvested product or food-contact surfaces, with corrective actions ready to deploy if problems occur. When product is immersed in water, water temperature differentials during immersion must be controlled in the case of products susceptible to infiltration of the water. Never mix cleaning products (i.e., dish washing liquid and germicidal bleach) without reviewing the labels, because two products combined could form a carcinogen that can infiltrate the product and become a public health concern. And all products used in cleaning/sanitizing post-harvest water must be labelled for use on food ('food grade') to ensure harmful chemicals do not contaminate the surface of or infiltrate produce.

P-7. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
P-7.2	Documented scheduled assessment of water system including delivery equipment shall be performed.	R	YES

P-7.2 GROWER GUIDANCE

The auditor will likely request verification of maintenance records and will visually observe the water system connections during the audit. It may be necessary to have a plumbing contractor conduct an annual inspection of the backflow prevention devices installed to ensure proper functionality: The contractor's invoice will serve as adequate documentation. At a minimum backflow prevention devices should be installed so that they can be inspected as part of your regular maintenance schedule.

COMPLIANCE ESSENTIAL

- ☐ Conduct routine checks to verify that back siphonage and backflow prevention units are functioning properly, and keep documentation of system service on file.

REQ. #	REQUIREMENT	DOC	MAN
P-7.4	Operation's Food Safety Plan includes produce washing process, if used.	A, WP	YES

P-7.4 COMPLIANCE ESSENTIALS

- ☐ Conduct a [Produce Washing Risk Assessment](#), considering the commodity, type of wash system (single-pass or recirculated), type of sanitizer (label instructions), and water quality.
- ☐ Incorporate an SOP in your food safety plan that clearly describing the wash process, monitoring of wash water, and corrective and preventive actions.

P-8 CONTAINERS, BINS & PACKAGING

Containers, bins, and packaging should be used for their intended purpose (unless otherwise labeled) and stored properly to prevent potential contamination. Have a written procedure for handling containers, bins and packaging that covers whether product-contact containers are permitted in direct contact with the ground, and a pre-use inspection policy that specifies what an acceptable product-container is (new cardboard boxes, reusable plastic containers (RPCs), etc.). In the event that pallets are used to keep product from contacting the ground, they must be kept clean and in good condition as appropriate for the intended purpose; otherwise they may present opportunity for cross-contamination.

P-9 STORAGE

Storage areas used for products and supplies can become a source of potential contamination if not properly maintained and organized. Shared storage spaces can result in cross-contamination of produce: for example, storing chemicals near produce could result in adulteration of food in the event of a chemical leak or spill. When storing products, the storage areas and conditions must be appropriate to the commodities being stored. Cold storage areas must be fitted with temperature monitoring equipment or suitable temperature monitoring devices, and monitoring records should be on file to verify that temperatures are appropriate for the commodity. Cooling equipment should be maintained in a manner so as to not serve as a potential contamination source through drips or condensation. To the extent possible maintain spaces between pallets and walls to ensure that adequate inspections, cleaning and sanitation can occur.

P-9. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
P-9.2	Iced produce is handled so as not to serve as a source of contamination.		NO

P-9.2 GROWER GUIDANCE

- When top-icing product, dry products and other food items should be stored above the iced product to avoid cross-contaminating those items with water that drips from melting ice. The auditor will visually observe all storage areas and inspect iced product on the premises during the audit to assess whether all stored materials are protected from contamination. Strategically storing product should be considered during cold storage and transportation.

P-10 TRANSPORTATION (PACKINGHOUSE TO CUSTOMER)

You should have a written policy specifying the requirements for cleanliness and functionality of shipping units and conveyances (truck, trailer, etc.). When refrigerated transportation is required for food safety, the standard suggests that you establish predetermined temperature requirements for transporters and that the vehicle cargo area be pre-cooled prior to loading, with a thermostatic device in place in the cargo area as necessary to monitor and maintain the required temperature. If internal product (pulp) temperature monitoring is part of your food safety program, the written procedure should include when and how to measure product temperatures prior to or during loading. This process may be a requirement of your buyer.

Improperly loading and unloading shipping units can cause damage to the produce, creating a potential route of pathogen entry. Use boxes designed for specific commodities to provide the stability needed to protect the products inside.

P-10. Challenge Areas

REQ. #	REQUIREMENT	DOC	MAN
P-10.5	The Operation shall have a policy, written procedures, and a checklist to verify cleanliness and functionality of shipping units (e.g., trailer)	WP, R	YES

P-10.5 GROWER GUIDANCE

During an audit, the auditor may review all written cleaning procedures and inspection records verifying the cleanliness and functionality of all shipping units used at ambient or controlled temperatures. The written procedure must state that the unit will not be used for raw animal or animal product transport, or for other materials that reasonably may be a source of contamination with biological, chemical or physical hazards, unless proper cleaning and procedures are in place.

Understand the use and purposes of chilled transportation.

Cold transport units are not designed to cool product: They only maintain temperatures during transport. This should be considered when loading produce to ensure the product maintains its quality during transportation.

COMPLIANCE ESSENTIALS

- ☐ Ensure all shipping units are clean, functional and free of objectionable odors before loading, as written in your food safety program, and/or as required for compliance with current industry practices or commodity specific regulatory requirements.
- ☐ Make sure that when refrigerated transport is used, refrigeration units are in working order.
- ☐ Maintain records of verification that shipping units have been washed between loads if prior transport included materials that reasonably may be a source of contamination.

QUESTIONS L-1 TO L-4

LOGO USE

USDA GAP program participants that maintain compliance with the program requirements may apply to use the GAP & GHP program logo, although use of the logo is not mandatory. Participants who choose to use this logo must undergo the Logo Use scope of the USDA HGAP Audit and submit a written request utilizing the [Logo Use Request for Audit Program Form](#) (SC-652) with supporting documents as stated in [the Instructions for Use of the GAP & GHP Logo](#).

CONCLUSION

The aim of this Handbook is to illuminate practical steps to help small and mid-scale diversified farms meet the requirements of the USDA FSMA-aligned Harmonized GAP standard, with a focus on elements that proved challenging for such farms during the 2018 growing season, the first year in which the standard was aligned with FSMA requirements. The USDA HGAP standard is becoming increasingly accepted in the marketplace, and the alignment of the standard with FSMA's technical requirements increases its attractiveness as a food safety metric for buyers. Small and mid-scale farms can indeed meet the revised standard and pass an HGAP audit without breaking the bank and without radically changing their fundamental production practices. The guidance, tips and strategies offered here can arm your operation to cost-effectively reduce food safety risks in your products, better protect your customers, and confidently demonstrate to an auditor the effectiveness of your food safety program. Passing the HGAP audit, in turn, can help you gain access to new markets.

The development of this Handbook was a collaboration among agencies and organizations across the U.S. that are dedicated to helping small and mid-scale farms thrive in the rapidly changing produce industry while promoting public health. The Carolina Farm Stewardship Association's [companion website](#) to this Handbook includes risk assessment and recordkeeping templates that address key issues discussed in this Handbook. Other important sources of tools and information on HGAP and food safety are your local cooperative extension agency, state department of agriculture, and local agriculture organizations and nonprofits. Every entity in the food supply chain is responsible for reducing food safety risks. Congratulations on making the commitment to do your part!

APPENDIX A

QUICK LINKS

USDA Harmonized GAP Standard

<https://www.ams.usda.gov/sites/default/files/media/HarmonizedStandard.pdf>

USDA Harmonized GAP Checklist

<https://www.ams.usda.gov/sites/default/files/media/HarmonizedGAPChecklist.pdf>

Complete the Request for Audit Services (Form SC-237A)

<https://www.ams.usda.gov/resources/sc237a>

USDA Harmonized GAP Program Alignment with FDA Produce Safety Rule Frequently Asked Questions

<https://www.ams.usda.gov/sites/default/files/media/FAQsUSDAGAPFSMAProduceSafetyRuleAlignment.pdf>

Participation in Audit Services Form (SC-651)

<https://www.ams.usda.gov/sites/default/files/media/SC651.pdf>

Specialty Crops Inspection Division Vendor Form

<https://www.ams.usda.gov/sites/default/files/media/SC430VendorForm.pdf>

Specialty Crops Inspection Division Vendor Form Completion Instructions

<https://www.ams.usda.gov/sites/default/files/media/InstructionforCompletingSC430forAuditServices.pdf>

Logo Use Request for Audit Programs Form

<https://www.ams.usda.gov/sites/default/files/media/SC652.pdf>

Instructions for Use of the GAP & GHP Logo

<https://www.ams.usda.gov/sites/default/files/media/Instructions%20for%20the%20Use%20of%20the%20GAPGHP%20Audit%20Verification%20Program%20Logo.pdf>

CFSA Record Keeping and Risk Assessment Templates

<https://www.carolinafarmstewards.org/record-keeping-and-risk-assessment-templates/>

APPENDIX B



United States
Department of
Agriculture

Print

Save

Reset

OMB No. 0581-0125
Exp. 8/31/2019

AGRICULTURAL MARKETING SERVICE, SPECIALTY CROPS PROGRAM REQUEST FOR AUDIT SERVICES

(This is the only acceptable form for fax or electronic submission to USDA for audit requests)

NOTE: Fill in all appropriate blocks. Requested services may be delayed because of incomplete information. Type of service requested must be selected below. Services will be declined if the request is beyond our scope of certification. Once a request has been received, a USDA representative will make contact within 48 hours of receipt to schedule the audit.

DATE OF REQUEST:		ANTICIPATED DATE OF AUDIT:	
------------------	--	----------------------------	--

AUDITEE INFORMATION		FARM / FACILITY INFORMATION	
Company Name:		Location:	
Street Address:			
City, State & Zip:		Total Acres / Total Sq Feet to be audited:	
Phone Number:			
Contact Person:			

APPLICANT INFORMATION		COMMODITIES TO BE COVERED BY AUDIT (Please List)
Company Name		
Phone Number:		
Fax Number:		
E-mail:		
Contact Person:		

TYPE OF AUDIT SERVICES REQUESTED (Please choose at least one)

<input type="checkbox"/> Produce GAPs Harmonized Audit - <i>Field Operations & Harvesting</i>	<input type="checkbox"/> USDA Good Agricultural Practices and Good Handling Practices (GAP&GHP) Audit (choose scopes below)
<input type="checkbox"/> Produce GAPs Harmonized Audit - <i>Field Operations & Harvesting w/ Global Markets Primary Production Addendum</i>	<input type="checkbox"/> Part 1 – Farm Review
<input type="checkbox"/> Produce GAPs Harmonized Audit - <i>Post Harvest</i>	<input type="checkbox"/> Part 2 – Field Harvest & Field Packing Activities
<input type="checkbox"/> Produce GAPs Harmonized Audit – <i>Post Harvest w/ Global Markets Primary Production Addendum</i>	<input type="checkbox"/> Part 3 – House Packing Facility
<input type="checkbox"/> Mushroom Specific GAP Audit (M-GAP)	<input type="checkbox"/> Part 4 – Storage & Transportation
<input type="checkbox"/> Tomato Audit Protocol - <i>Open Field Production, Harvest & Field Packing</i>	<input type="checkbox"/> Part 6 – Wholesale Distribution Center / Terminal Warehouse
<input type="checkbox"/> Tomato Audit Protocol - <i>Packinghouse</i>	<input type="checkbox"/> Part 7 – Preventative Food Defense Procedures
<input type="checkbox"/> Tomato Audit Protocol - <i>Greenhouse</i>	<input type="checkbox"/> Food Defense
<input type="checkbox"/> Tomato Audit Protocol – <i>Repacking and Distribution</i>	<input type="checkbox"/> Other:
<input type="checkbox"/> Plant Systems Audit (PSA)	

ADDITIONAL REMARKS	
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According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0125. The time required to complete this information collection is estimated average 2 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

Non-Discrimination Policy: In accordance with Federal civil rights law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, the USDA, its Agencies, offices, and employees, and institutions participating in or administering USDA programs are prohibited from discriminating based on race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, or reprisal or retaliation for prior civil rights activity, in any program or activity conducted or funded by USDA (not all bases apply to all programs). Remedies and complaint filing deadlines vary by program or incident.

Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, American Sign Language, etc.) should contact the responsible Agency or USDA's TARGET Center at (202) 720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at (800) 877-8339. Additionally, program information may be made available in languages other than English.

To file a program discrimination complaint, complete the USDA Program Discrimination Complaint Form, AD-3027, found online at How to File a Program Discrimination Complaint and at any USDA office or write a letter addressed to USDA and provide in the letter all of the information requested in the form. To request a copy of the complaint form, call (866) 632-9992. Submit your completed form or letter to USDA by: (1) mail: U.S. Department of Agriculture, Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW, Washington, D.C. 20250-9410; (2) fax: (202) 690-7442; or (3) email: program.intake@usda.gov.

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APPENDIX C



United States
Department of
Agriculture

SPECIALTY CROPS INSPECTION DIVISION VENDOR FORM

TO BE FILLED OUT BY THE ORIGINATING OFFICE			
CHECK ONE: <input type="checkbox"/> NEW APPLICANT <input type="checkbox"/> UPDATING EXISTING APPLICANT INFORMATION			
DATE:		PACA LICENSE NUMBER:	
		N/A	
ORIGINATING OFFICE (include office # and state):		APPLICANT NUMBER (IF NEW LEAVE BLANK):	
N/A			
APPLICANT NAME:		CONTACTS:	
ADDRESS (STREET ADDRESS REQUIRED):		CITY	STATE: ZIP:
BILLING ADDRESS (IF DIFFERENT THAN STREET ADDRESS):		CITY:	STATE: ZIP:
DOING BUSINESS AS (Use this section if certificate recipient is different to the person above):			
PHONE:		FAX:	
EMAIL:		TAX ID NUMBER (REQUIRED):	
<input checked="" type="checkbox"/> SCENARIO A: AN APPLICANT THAT IS NOT LISTED IN THE FEIRS/BIIS GLOBAL LIST OF APPLICANTS. <input type="checkbox"/> SCENARIO B: AN APPLICANT THAT IS LISTED IN THE GLOBAL FEIRS/BIIS DATABASE, BUT DOES NOT HAVE AN ACCOUNT NUMBER FOR THE LOCAL OFFICE.			
APPLICANT WILL BE A:		DATE SENT TO SERVICE CENTER OR BILLING STAFF:	
<input checked="" type="checkbox"/> BILLING <input type="checkbox"/> COD			
TO BE FILLED OUT BY SERVICE CENTER OR BILLING STAFF			
DATE RECEIVED:		FMMI NUMBER:	
APPLICANT NUMBER GENERATED (LIST NUMBER HERE):		NOTES:	
		For audit services, submit this form to one of the following: - by Email to SCReimbursement@ams.usda.gov - by fax to 866-230-9168 - by mail to USDA, AMS, SCI, ASB 1400 Independence Avenue, SW Room 0707-S, Stop 0247 Washington, DC 20250-0247	
DATE ENTERED INTO FEIRS/BIIS & FMMI:			
DATE ORIGINATING OFFICE NOTIFIED APP. IS IN FEIRS/BIIS & FMMI:			

APPENDIX D

USDA HARMONIZED GAP AUDIT PREPARATION CHECKLIST

- ☐ **Develop and implement your Food Safety Program** (SOPs, Records, etc.)
- ☐ Schedule your audit based on when you have the most crops in production and are able to demonstrate the most harvest techniques. To schedule your audit, complete the Request for Audit Services (Form# SC-237A) on the USDA AMS website: <https://www.ams.usda.gov/sites/default/files/media/SC237Aexp083119.pdf>

North Carolina* Vincent Wyche Vincent.Wyche@ncagr.gov 252-799-4020 office	South Carolina* Matthew Burleson fv@scda.sc.gov 803-737-2523 office
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- ☐ **Hang Signage:** General Health and Hygiene Policy and Handwashing Signs and Designated Break Area, and other food safety related signs
- ☐ **Conduct Food Safety Trainings** with all employees upon hire and a review just prior to the audit is recommended. Include any new processes or procedures implemented since prior training.
- ☐ **Print a copy of the Table of Contents to provide to the auditor.** This is a time saving technique. You may allow the auditor to take this with them to complete your audit report off-site.
- ☐ **Print a copy of your farm maps.** The auditor may request a copy of your Farm Map to include with you audit submission and file. It is fine for the Auditor to ask for these and may be taken off-site.
- ☐ **Conduct necessary water tests** based on your Water Management and Use SOP.
- ☐ **Conduct Food Safety Risk Assessments**
 - ☐ Pre-harvest Risk Assessment
 - ☐ Weekly Risk Assessment
 - ☐ Land Use History and Adjacent Land Risk Assessment
 - ☐ Water System Risk Assessment
 - ☐ Animal Control Risk Assessment
 - ☐ Biological Soil Amendments of Animal Origin Risk Assessment
 - ☐ Allergen Risk Assessment
 - ☐ Produce Washing Process Risk Assessment
- ☐ **Conduct a Self Audit** utilizing the correct USDA Harmonized GAP audit Checklist (Version 4.0)
- ☐ **Have the following items on hand:**
 - ☐ First-Aid Kits (Make sure staff knows all locations)
 - ☐ Liquid Hand Soap, and single use paper towels for all handwashing stations
 - ☐ Additional handwashing stations for field locations and outdoor break areas
 - ☐ Mouse traps (tin-cats), number and add to farm map
 - ☐ Personal Protection Equipment (PPE), i.e., disposable gloves for injuries, required as part of your Food Safety Plan
 - ☐ Water Monitoring Testing Strips, where applicable.
 - ☐ Drinking water for employees
- ☐ **Conduct Mock Recall.** This includes conducting a traceability exercise.
<https://www.carolinafarmstewards.org/how-and-why-to-conduct-a-mock-recall-in-preparation-for-a-gap-audit/>

***NOTE:** For operations located in other states, find the contact for your state Department of Agriculture audit services at <https://www.ams.usda.gov/services/how-request-gap-and-ghp-audit>.