

# **GHP/GAP Certification: Marketing Safe Mushrooms**



# What is GHP/GAP?



- Good Handling Practices
- Good Agricultural Practices





# **GHP/GAP**

**Implemented in 2002  
by the USDA's Agricultural  
Marketing Service.**



**Designed to certify  
adherence to "*Guide to  
Minimize Microbial Food  
Safety Hazards for Fresh  
Fruits and Vegetables*"  
(FDA)**



# Is GHP/GAP Required?

GHP/GAP is a **voluntary audit**, paid for by the grower and performed by a USDA-licensed auditor.



Buyers will sometimes require their suppliers to align their growing practices with the standards.

**USDA has recently (June 2018) aligned GHP/GAP with FDA's Produce Safety Rule.**



**“science-based minimum standards for the safe growing, harvesting, packing, and holding of fruits and vegetables grown for human consumption”**

**This new alignment is known as the Harmonized Good Agricultural Practices (H-GAP) audit program.**

# Basic Principles

“...best agricultural practices to verify that fruits and vegetables are produced, packed, handled, and stored in the safest manner possible to minimize risks of microbial food safety hazards.”

- Manure
- Water
- Worker Health and Hygiene
- Sanitary facilities
- Field Sanitation
- Packing Facility Sanitation
- Transportation





# Why Certify?

GHP/GAP is a  
“market access tool.”



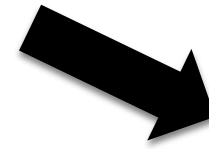
Some produce  
buyers may require  
a food safety audit  
in order to  
purchase produce  
from your farm.



# Where to Start

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

Forms!



An audit must be officially requested using a Request For Audit Service Form SC-237A.

The form is then submitted to the appropriate local office.

The image shows a sample of the Request for Audit Services Form (SC-237A) from the United States Department of Agriculture. The form is titled 'AGRICULTURAL MARKETING SERVICE, SPECIALTY CROPS PROGRAM REQUEST FOR AUDIT SERVICES'. It includes sections for 'AUDITEE INFORMATION', 'FARM / FACILITY INFORMATION', 'APPLICANT INFORMATION', 'COMMODITIES TO BE COVERED BY AUDIT', and 'TYPE OF AUDIT SERVICES REQUESTED'. The 'TYPE OF AUDIT SERVICES REQUESTED' section has checkboxes for various audit types, such as 'Produce GAPs Harmonized Audit - Field Operations & Harvesting', 'Mushroom Specific GAP Audit (M-GAP)', and 'USDA Good Agricultural Practices and Good Handling Practices (GAP&GHP) Audit'. There is also an 'ADDITIONAL REMARKS' section at the bottom.



In AZ:

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# The Audit

*Four stages:*

- Opening Meeting
- Audit Implementation
- Exit Meeting
- Unannounced Surveillance Review



D – Document Required  
 R – Record Required  
 P – Procedure documented in food safety plan required

*Audit Criteria Example:*



	Questions	Points	YES	NO	N/A	Doc
1-19	Composted manure and/or treated biosolids are properly treated, composted, or exposed to environmental conditions that would lower the expected level of pathogens.	10				<b>D</b>

# GHP/GAP For Mushrooms

Mushroom production has its own set of GAP standards!

They align with FDA and USDA standards with unique provisions for mushroom production.



The main difference is the addressing of substrate in mushroom GAP.



# Core Principles

**Principle 1.** Prevention of food safety hazards is favored over reliance on corrective actions after a problem has occurred.

**Principle 2.** Mushrooms can become contaminated at any point between growing and shipping.

**Principle 3.** The use of animal products in substrate, casing, or supplement preparation should be managed carefully to minimize the potential for microbial contamination of mushrooms.

**Principle 4.** Worker hygiene and field sanitation practices play a critical role in minimizing the potential for microbial contamination of mushrooms.

**Principle 5.** Water has the potential to be a source of contamination during mushroom growing and subsequent handling.

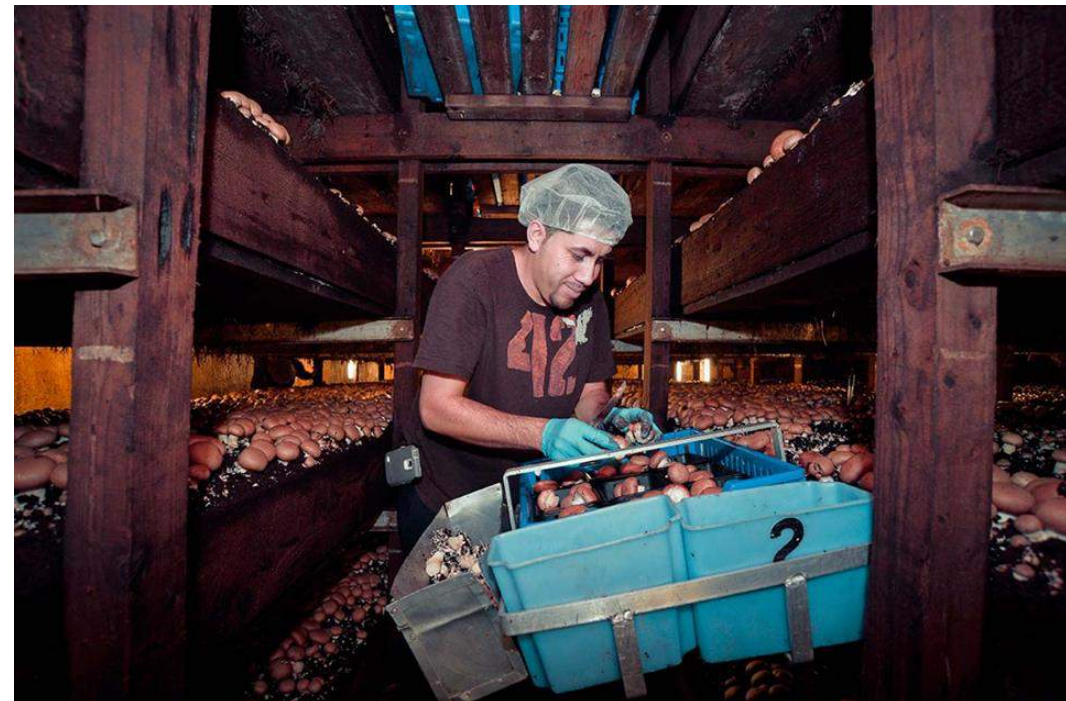
# Principle 1 *Prevention*

Make a plan!



Questions		Points	YES	NO	N/A	Doc
1.1a	Does the farm have a documented food safety program in place? (A "NO" answer results in an automatic unsatisfactory).	15				D
1.1b	Has your farm designated an individual for the overall development and implementation of the food safety plan? (A "NO" answer results in an automatic unsatisfactory).	15				D

**“A systematic and documented food safety plan that monitors and verifies compliance with safe mushroom growing practices”**





# Principle 2 Contamination

- Worker hygiene



- Sanitary packing practices



- Farm sanitation



- Separation of harvested mushrooms from substrate materials





## **Principle 3**   *Substrate*

**“Prevention of cross-contamination of non-substrate materials and mushrooms with unpasteurized substrate”**



**- Using tried-and-true methods for pasteurizing substrate to minimize microorganisms**



# **Principle 4** *Worker Hygiene and Field Sanitation*

- Good general hygiene



- Separation of eating facilities from production facilities



- Properly maintained restroom facilities



- Sanitary harvesting practices

# Principle 5 Water

- Water quality



- Available potable water



- Backflow preventers on fixtures



- Well security





# Farm Sanitation

Prevent condensation!

Use materials that are easily cleaned.



- Make the fruiting space as easy to clean as possible.





# What if you flunk?

You will not be awarded certification if you receive an “Automatic Unsatisfactory” or don’t meet the minimum passing score (80% per section).



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1.1a	Does the farm have a documented food safety program in place? (A "NO" answer results in an automatic unsatisfactory).	15				D
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You will need to submit a corrective action report to the auditor. They will review it and deem it satisfactory.

After reviewing the corrective action report, a follow-up audit will be conducted.





# Resources



AZDA offers a free training and 75% reimbursement for an audit!

Search: "azda ghp/gap"



Lots of information about getting certified including documents outlining procedures and practices:

<https://www.ams.usda.gov/services/auditing/gap-ghp>

Information about the logistics of selling mushrooms through various retail outlets:

<http://www.mushroomcouncil.org>

