



Food Safety

Self-Directed
Study Guide

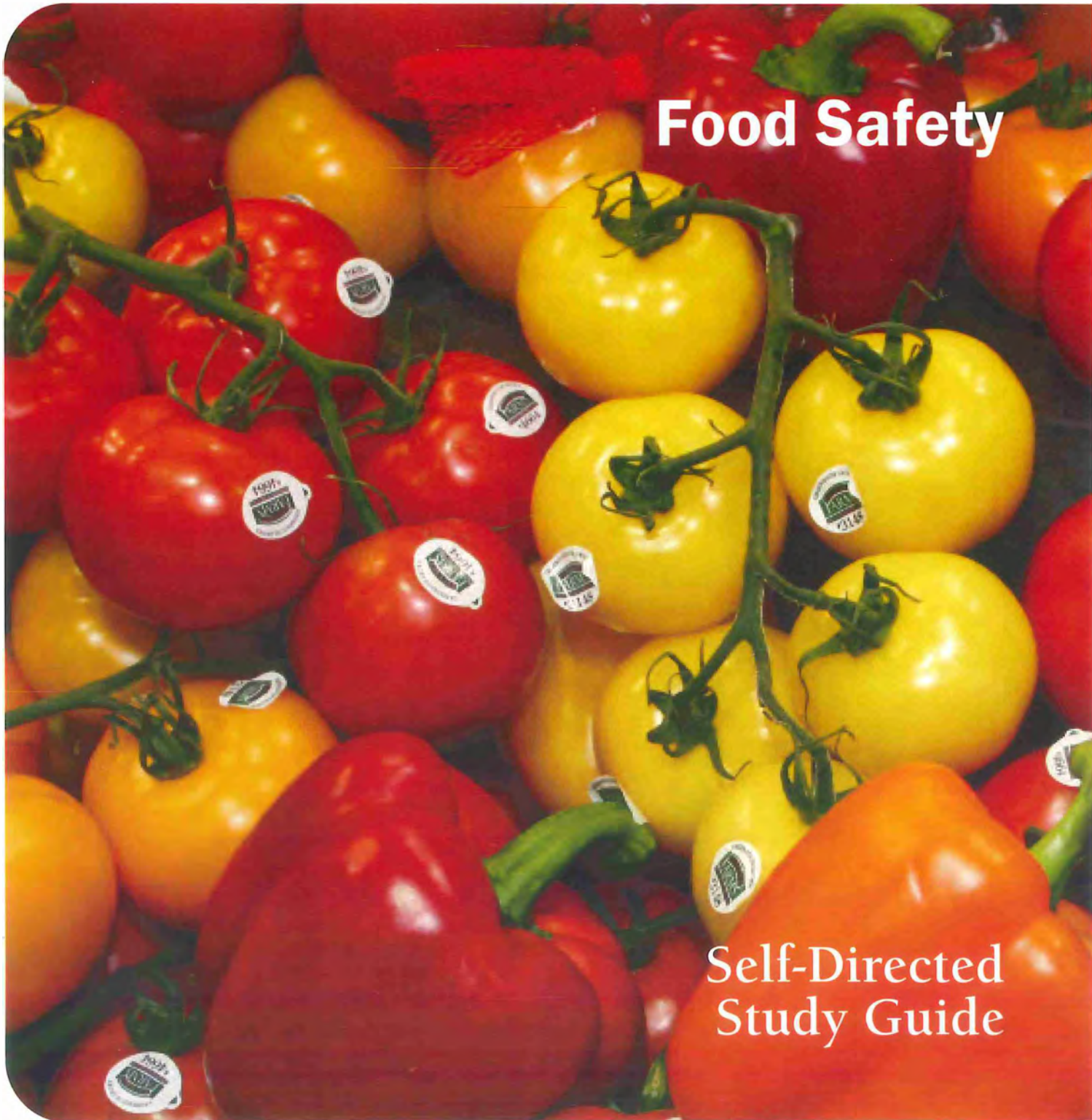




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How To Use This Workbook

The purpose of this workbook series is to provide you with knowledge, skill and ability on a wide range of subjects related to your produce department. To ensure success you will want to identify who your Manager or Trainer will be for this program.

Manager Name: _____ Date: _____

If you have more than one manager or trainer, list them below. Any of these individuals are capable of signing-off on your work. Refer to the individual directly responsible for your training for more information.

Accompanying CD

A good number of the exercises presented here may require additional practice for trainees to perfect. Whenever you see the CD symbol pictured below, you can print out that activity and practice it as often as needed to obtain mastery.



You will need to complete all of the exercises and work activities, and have your manager sign and date the designated areas of the workbook. This way, you and your manager will know that you have successfully completed all of the learning exercises, and have achieved the desired level of understanding, skill and ability to execute tasks needed to do your job well.

What You Will Learn



This course is geared toward providing you with the essential skills to handle fresh fruits and vegetables safely. After completing the readings and exercises in this workbook, you will be able to do the following:

Describe the importance of safe food handling.

At our store, nothing is more important than the physical safety of our customers. You will learn about the food safety standards and practices we have in place.



Define foodborne illness and the primary types of hazards most common to produce.

It's important to understand how foodborne illness occurs and the hazards you need to avoid when handling fresh produce.

Identify common causes of cross-contamination.

You will learn how to avoid conditions that can lead to cross-contamination – including your own behaviors – to ensure the safety of the produce.



What You Will Learn



Explain the differences between clean and sanitized and how each applies to the produce departments.

Cleaning and sanitizing is not the same thing. Being aware of when you need to take each of these actions will help you prevent cross-contamination.



Follow personal hygiene standards.

Even though you arrive at work clean and well groomed, you need to be aware of how your personal hygiene must be maintained throughout the day.



Keep produce safe during receiving, storage and once it is displayed.

Fresh produce must be handled correctly from the moment it is received, while it is in storage, and also during the time it is displayed. You will learn techniques for maintaining the right conditions for food safety.

Introduction



Importance of Food Safety

Our customers expect high-quality, safe food that is received, stored and displayed in a clean and sanitized environment.

To protect all of our customers and associates, we have put strict food safety standards and practices in place. By following these food safety practices, you can reduce and eliminate the opportunities for:

- Food contamination
- Foodborne illness



This course is based on the Food and Drug Administration's (FDA) Food Code.

What is the FDA Food Code?

The Food Code is a series of recommendations and standards that will prevent or reduce risk factors known to cause foodborne illness.

The Food Code:

- Provides practical, science-based guidance from a panel of industry experts.
- Is a reference document for regulatory agencies that ensures food safety in:
 - food service establishments
 - retail food stores
 - other food establishments at the retail level
 - institutions, such as nursing homes and child care centers

Introduction

DEFINITION

Foodborne Illness:

An illness that occurs when a person gets sick after eating contaminated food. Symptoms include nausea, cramping, vomiting, diarrhea and fever.

Foodborne Illness

People who are more likely to contract a foodborne illness and have difficulty fighting it off include:

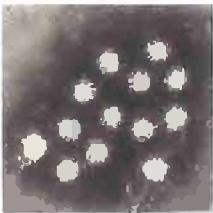
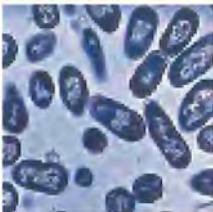

- Young children.
- Pregnant women.
- The elderly.
- Anyone on immune system medication (such as cancer, organ transplant or HIV patients).



Introduction



Foodborne Illness (continued)

Foodborne Illness	Definition
	<p>Hepatitis A</p> <p>A viral infection transmitted from person to person via oral fecal contact. The best ways to avoid transmitting Hepatitis are to maintain good personal hygiene and thoroughly wash your hands after using the restroom.</p>
	<p>Salmonella</p> <p>A bacterial infection that can be transmitted from produce items to people. This foodborne illness has been linked to human illnesses caused by cantaloupes and fresh-squeezed juices.</p>
	<p><i>E. coli</i> 0157:H7</p> <p>A bacterial intoxication transmitted to people via consumption of produce that has been contaminated with animal feces. Some common carriers of <i>E. coli</i> are thought to include cattle, wild pigs and geese. <i>E. coli</i> is of great concern due to its extremely virulent cells and production of very potent toxins. It affects kidney function and has a high mortality rate.</p>

The authorities will declare a foodborne illness outbreak any time two or more people get the same illness from eating the same food from the same source.

Food Safety Basics



Food Safety Hazards

Food safety hazards can be broken down into three primary categories:

- Biological
- Chemical
- Physical

Biological Hazards

Biological hazards include bacteria, viruses, parasites and fungi. Biological food hazards are typically hard to protect against because they are fast to spread.

Biological Hazard	Definition
Bacteria	Extremely small, single-celled life forms that can reproduce rapidly.
Viruses	Small particles that infect cells in biological organisms.
Parasites	Organisms that live on or in other organisms, causing contamination or speeding decay.
Fungi	Organisms that use living or dead organisms as food by breaking them down and then absorbing the substances into their cells.

Whenever a biological hazard contaminates a food item, it is known as a microbial contaminant.

Food Safety Basics



Chemical Hazards

Chemical hazards include things such as:

- Cleaning chemicals
- Pesticides

If you are using a cleaning chemical to clean a produce display, and some of the chemical gets onto the produce, this would contaminate the produce and could cause our customers to get sick.



Physical Hazards

Physical hazards are caused by foreign objects that contaminate or damage the food. Make sure all storage areas are free of anything that could potentially cause a physical hazard.

Examples of physical hazards are:

- A broom propped up against a produce display.
- Cleaning gloves that were discarded and left nearby the produce.
- A dust pan full of dirt that accidentally spills on the produce.



Food Safety Basics

What are the top two causes of food contamination?

#1 Cause: Improper temperature, either when food is shipped, received, stored, prepared, or cooked.

#2 Cause: Cross-contamination.

Cross-contamination

Cross-contamination occurs when bacteria from one item is transferred to another item.

Common causes of cross-contamination include:

You – when bacteria from your hair, saliva, hands, gloves, or apron are transferred to the food.



Utensils – when bacteria from utensils, such as knives, cutting boards, crisper buckets, etc., are transferred to the food.



Food Safety Basics



Spills, drips and splashes – when bacteria from potentially hazardous food, such as raw beef from the meat department, are accidentally, spilled, dripped, or splashed onto other foods.



Chemicals – when chemicals from things such as cleaning supplies and pesticides are transferred to food.



Helpful Hints

To avoid cross-contamination you can:

- Frequently wash your hands and change your apron and gloves.
- Clean and sanitize utensils after every use.
- Never store raw food above produce or cooked food.
- Never use cleaning sprays or pesticides near unwrapped food.

Food Safety Basics



Keeping Produce Safe

Key actions you can take to keep produce safe include:

Follow proper rotation and remove any products that have passed their use-by dates.



Follow all personal hygiene requirements, including hand washing.



Follow all sanitation requirements.



Follow all receiving and storage requirements.

The following sections of this guide address these requirements in more detail.

Food Safety Basics



Interview Your Manager: Food Safety Basics

In order to learn more about the food safety standards that your company or department must follow, interview your manager by asking the following questions:

Q: Do we have a document or manual for our food safety practices and standards? If so, where do we keep it? What are the most important elements of this document you want me to know first?

Q: Who is responsible for checking that everyone follows the food safety guidelines? What is my responsibility for reporting to this person?

Q: Will I be evaluated on how well I follow food safety procedures? If so, how often will this occur? What are the key elements for my getting a favorable evaluation?

Sanitation

Definitions

Cleaning

The process of removing food and other types of soil from a surface, such as a produce bin or food preparation area.

Sanitizing

The process of reducing the number of microorganisms on a clean surface to safe levels.

Each surface that will come into contact with food should be cleaned and sanitized before and after each food contact.



Items that should be cleaned and sanitized are:

- utensils
- cutting surfaces
- sinks
- display cases
- lugs

Failure to clean and sanitize these items can result in cross-contamination.

EXAMPLE

If there is harmful bacteria on a cutting surface and you do not clean and sanitize it before preparing fresh-cut fruit you will transfer the bacteria to the fruit, and then to customers!

Sanitation



Clean versus Sanitized

Are cleaning and sanitizing the same thing? No.

An item can be sparkling clean and still not be sanitized.

Two-Step Process for Sanitation

Fill the Sinks:

Fill the first sink with detergent, the second sink with rinse water, and the third sink with sanitizer.

Clean:

Using a stiff bristle brush, scrub the cutting board on both sides and edges, rinse in the second sink.

Sanitize:

Submerge in the sanitizer. Allow the cutting boards to air dry. (Wash, rinse and sanitize knives in the same way.)





Sanitation

Interview Your Manager: Sanitation

To learn more about your company or department's sanitation procedures, interview your manager by asking the following questions.

Q: What type of sanitizers do we use in the produce department? Where are these sanitizers stored, and which ones are used for specific produce areas or situations? Is there advice you want to share about how I should use each one?

Q: How often do we need to sanitize utensils, cutting surfaces, sinks, and lugs? What is the schedule for sanitizing the display cases?

Sanitation



On-the-Job Learning: Sanitation Procedures

Your goal is to learn about your company's sanitation procedures. Ask your manager to demonstrate or instruct you on how to sanitize the items listed below. Then, with your manager observing you, complete each of the tasks.



Utensils and Cutting Surfaces and Sinks

Demonstration Date: _____ Completion Date: _____

Notes about sanitizing utensils cutting surfaces (chemical used, procedures, etc.).

Display Cases

Demonstration Date: _____ Completion Date: _____

Notes about sanitizing display cases (chemical used, procedures, etc.).

Lugs

Demonstration Date: _____ Completion Date: _____

Notes about sanitizing lugs (chemical used, procedures, etc.)

Sign-off The completed practice display met the quality standards of our company.

Manager/Training Coach: _____ Date: _____



Personal Hygiene

All associates should arrive for work clean and well groomed. To maintain good personal hygiene, you need to:

- Bathe
- Trim your nails
- Pull long hair back before each shift
- Wash hands regularly
- If wearing gloves, change them regularly
- Change apron regularly
- Cover any cuts with a bandage

HELPFUL HINT

If you have a cut, use a colored bandage.

Colored bandages are much easier to find if they come off than flesh colored ones. If the cut is on your hand, you must wear a glove to cover the bandage. This will prevent the cut from coming into contact with food.

What should you do if you are sick and are scheduled for work?

Don't come to work. Not only could you get your co-workers sick, you could also contaminate the food and/or get our customers sick.

Personal Hygiene



Hand Washing

There are many activities you do – and things you touch – during your shift that require you to wash your hands again, before handling produce.

These activities include:

- Handling raw food
- Using the rest room
- Taking a break
- Changing tasks or stations
- Using chemicals
- Handling rotting or damaged produce items
- Eating or smoking
- Sneezing or coughing
- Touching your hair, skin, or face
- Touching trash



You should wash your hands before handling or preparing fruits and vegetables, portioning salads, and combining ingredients for salads.



Personal Hygiene



Gloves and Aprons

It's also important to change your apron or gloves regularly.

Remember, the gloves are protecting the food – not your hands!

Pay close attention to the condition of your apron and gloves as you are working. Change your apron when it becomes soiled.



The same rules that apply to washing your hands also apply to when you must change your gloves.

NOTE

Aprons are not to be worn outside of the produce department.

Personal Hygiene



Hand Washing– Putting the Steps in Order

Instructions: In the right column are the steps for washing your hands, but they are not in the correct order. Determine which step you would take first, second, and so on. Put the steps in order by writing the appropriate number of the step in the left column (1, 2, 3, etc.).

Order	Steps
	Apply a generous amount of soap.
	At the hand sink, turn on the hottest water you can tolerate.
	Rinse thoroughly.
	Use a clean paper towel or air dryer to dry your hands. Make sure you throw the paper towel away in the trash can when you are finished.
	Rub your hands together and scrub your hands and forearms for 20 seconds. Don't forget to clean under your fingernails and between your fingers.
	Wet your hands and any uncovered parts of your arms with hot water.

You can check your answers on the next page.

Personal Hygiene

Answers to the Activity

This is the correct order of the steps for hand washing:



- 1: At the sink, turn on the hottest water you can tolerate.
- 2: Wet your hands and any uncovered parts of your arms with hot water.
- 3: Apply a generous amount of soap.
- 4: Rub your hands together and scrub your hands and forearms for 20 seconds. Don't forget to clean under your fingernails and between your fingers.
- 5: Rinse thoroughly.
- 6: Use a clean paper towel or air dryer to dry your hands. Make sure you throw the paper towel away in the trash can when you are finished.

Personal Hygiene



On-the-Job Learning: Hand Washing

Your goal is to learn the proper hand-washing technique so that you use it every time. Ask your manager to observe you washing your hands, sign-off on each step as it is successfully completed, and sign-off that all six steps were performed correctly.



Hand Washing Steps

Mgr. Initial	Step	Description of Step
	Step 1	At the sink, turn on the hottest water you can tolerate.
	Step 2	Wet hands and any uncovered parts of both arms with hot water.
	Step 3	Apply a generous amount of soap.
	Step 4	Rub your hands together and scrub your hands and forearms for 20 seconds. Clean the area under the fingernails and between the fingers.
	Step 5	Hands and uncovered areas of arms were rinsed thoroughly.
	Step 6	Use a clean paper towel or air dryer to dry the hands. The towel must be properly disposed of in a trash receptacle.

Sign-off: All six hand-washing steps were followed according to guidelines.

Manager/Training Coach: _____ Date: _____

Receiving and Storage

Inspecting Produce

You probably already know that proper receiving and storage practices are important to reduce shrink. Those practices are also essential to maintain the safety of the produce you sell. When you are inspecting and handling a new shipment, you are also ensuring that any items that could be unsafe to eat never make it to your produce display.

When produce is delivered to your store, it will need to be inspected for quality and then put into storage immediately.

- Inspect each storage container as it is unloaded off the truck.
- Look for any quality issues, such as mold, bruising, or decay.
- Use all of your senses. Although an item might look fine on the outside, it might smell rotten.

Once each item has passed your quality inspection, it's time to put everything into storage.

Refrigerated items must be placed in the cooler at the correct temperature, and un-refrigerated items must be placed in dry storage.

Temperature Warning!

Why is it critical that all temperature guidelines are followed?

Improper storage temperatures can result in chill, damage, accelerated decay or the accelerated growth of bacteria, among other things.

Anything that becomes contaminated as a result of improper storage will have to be discarded as waste.

Receiving and Storage



Proper Storage Procedures

Label all items.

As you are stocking each produce item, make sure to label each container with the day's date.



Rotate stock.

Always rotate the stock so that the new items are placed behind the older items. This will allow everyone to follow the First-In, First-Out (FIFO) rule when pulling items from storage. The FIFO rule ensures that the older items are used first, which helps to prevent stock from exceeding its expiration date.



Keep produce off the floor.

Never store produce on the floor. All food products should be stored on a shelf at least six inches off the floor to keep the food dry and away from possible rodents or insects.



Check temperature gauges.

Incorrect temperatures on storage equipment, such as coolers and display cases, can result in accelerated growth of bacteria. Check the temperature gauges on your storage equipment frequently, and alert your manager immediately if you notice any problems.





Receiving and Storage

Interview Your Manager: Receiving and Storage

To learn more about your company or department's receiving and storage procedures, interview your manager by asking the following questions.

Q: How often do we receive deliveries? What quality issues do I need to look for when I inspect the containers?

Q: Which items are rotated most frequently and how often is each of them to be rotated?

Q: What is the correct temperature for the coolers and display cases? Do these temperatures vary depending on the type of produce? If so, do we have a record of the appropriate temperatures?

Care and Handling



Keeping Produce Displays Safe

Food safety doesn't end in the storeroom. Once produce is displayed, strict safety standards must be followed to keep the produce safe for our customers, including rotating the stock.

Display conditions

Maintaining the proper display temperature is critical to keeping produce safe. Monitor the temperature of each display throughout the day.

Display cases should be cleaned and sanitized regularly to remove the dirt and debris that accumulates as a normal result of selling produce. Your produce manager should have a schedule for cleaning and sanitizing display cases.

When filling refrigerated cases be sure to keep product within the load level lines so the cold air can surround the products. Filling products over the load level lines disrupts the flow of cold air and causes products to warm. For some produce, this results in quality loss. For other items, like ready-to-eat salads, this can cause food safety issues.



HELPFUL HINT

Familiarize yourself with the temperature requirements of each produce item and display so you'll recognize temperature problems.

If you notice an incorrect temperature, notify your manager immediately!

Care and Handling

Rotation

As you are stocking an item, make sure to rotate the produce so that the older stock is located in front of the newer stock. This will help to ensure the older stock is purchased first. Also, some produce will need to be rotated periodically to avoid bruising and other damage.

Make sure to familiarize yourself with the requirements of each produce item your store offers. Ensure that you remove any product that has passed its use-by date if it has one on the package.



Protection of packaging

You will need to monitor the packaging of certain items, such as bagged salads and salad dressings, throughout your shift. Occasionally, packaging may become damaged or compromised.

Any time you notice packaging that has been compromised, you will need to remove the product from the display and notify your manager.

Care and Handling



Case Study: Situation 1

Instructions: Read the following situations and answer the questions that follow.

Bill is building a display of vegetables. As he is stocking the items, he places the older product in front of the newer product. A customer standing nearby drops a jar of peaches and it shatters on the floor. Bill tells the customer, “Don’t worry, I’ll take care of it.” He gets a mop and cleans up the jar of peaches. The customer thanks him.

Then Bill returns to the display. As he’s working, he notices that the temperature doesn’t seem cool enough. He checks the temperature gauge and sees that it’s a little high. He adjusts the temperature.



Bill

Q: What are the actions Bill took that were good procedures for ensuring food safety?

Q: What did Bill fail to do, or do incorrectly, that could risk food safety?

Care and Handling

Case Study: Situation 2



Jack

Jack starts his shift by receiving a delivery of produce. As the containers are unloaded off the truck, Jack carefully goes through a few of the containers and inspects them for any quality issues. The produce looks good. He then dates all of the containers and stores them. He stocks them so that the older items are behind the newer items and he also makes sure to keep them off of the ground. He also checks the temperature gauges of the coolers and sees that they are set correctly.

Later that day, Jack begins working on a display of citrus fruit. As he's stocking the fruit, he notices that one of the produce clerks has left a cleaning rag on the apple display and it's touching the apples. He immediately discards the rag, and then washes his hands before returning to his task. As he's stocking the oranges, he notices that two of them feel a little soft, but they look fine on the outside. So he smells them and discovers that they have a rotten smell. He decides to throw them away, and then carefully checks the rest of the oranges.

Q: What are the actions Jack took that were good procedures for ensuring food safety?

Q: What did Jack fail to do, or do incorrectly, that could risk food safety?

Knowledge Test



Circle or check the best answer for each of the following questions.
When you are done, ask your manager or training coach to grade your answers.

- 1:** A foodborne illness occurs when a person gets sick after eating contaminated food.
 TRUE FALSE

- 2:** Who is more likely to contract a foodborne illness and have difficulty fighting it off?
A. pregnant woman
B. the elderly
C. those with a weakened immune system
D. all of the above

- 3:** Physical hazards include bacteria, viruses, parasites and fungi.
 TRUE FALSE

- 4:** Biological food hazards are typically easy to protect against because they are slow to spread.
 TRUE FALSE

- 5:** Each surface that will come into contact with food should be _____ before and after each food contact.
A. cleaned
B. sanitized
C. cleaned and sanitized

- 6:** When you are inspecting a shipment of produce, the best indicator of quality will be the external appearance of the produce.
 TRUE FALSE

- 7:** You should always rotate stock so that the older stock is _____ the newer stock.
A. behind
B. in front of



Knowledge Test

YOUR SCORE

11+ correct:
Congratulations! You are on your way to becoming a produce expert.

10 correct: Excellent

9 correct: Good job

8 or less correct:
You might need to pay closer attention.

- 8:** If you notice that a display is at the improper temperature, you should:
- A. adjust the temperature
 - B. rotate the produce on the display
 - C. tell your manager immediately
 - D. ask a produce clerk to adjust the temperature
- 9:** It is okay to wear your apron outside of the produce department as long as you don't wear it in the restroom.
- TRUE FALSE
- 10:** You should wash your hands after:
- A. sneezing or coughing
 - B. handling rotting or damaged produce items
 - C. using chemicals
 - D. all of the above
- 11:** Once the produce is displayed on the floor, you will need to continue to rotate the stock.
- TRUE FALSE
- 12:** When filling refrigerated cases, you should keep produce _____ the load level lines.
- A. below
 - B. above
 - C. within

If you need to refer to the pages of this study guide, each of the test items are listed below with the page number where the content is provided.

- | | |
|------------|------------------|
| 1. Page 5 | 7. Page 24 |
| 2. Page 5 | 8. Pages 24, 26 |
| 3. Page 7 | 9. Page 19 |
| 4. Page 7 | 10. Page 18 |
| 5. Page 13 | 11. Pages 26, 27 |
| 6. Page 23 | 12. Page 26 |

Activity Completion and Sign-off



The purpose of the module was to provide you with some hands-on experience with food safety procedures. Specifically, you should feel confident in your ability to keep the department well sanitized, demonstrate good personal hygiene and safely receive, store and display produce.

Activities to Complete

On-the-Job Learning Exercises	Trainer Initials	Trainee Initials
Sanitation (page 16)		
Hand Washing (page 22)		
Manager Interviews	Trainer Initials	Trainee Initials
Food Safety Basics (page 12)		
Sanitation (page 15)		
Receiving and Storage (page 25)		

Trainee Signature

Manager Signature

Date

Date

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Future Learning and Development Plan

Naturally, there are bound to be some tasks related to food safety that you are more confident in than others, as learning is a continual process based on experience and practice. Your manager will provide you with specific development goals based on your performance throughout this program. You and your manager will take these ideas and create a development plan together (see next page).

Trainee Signature

Manager Signature

Date

Date



Development Plan

Name: _____ Date: _____

Development Goal	Actions to Take	Team Member Mentor	Follow-up Date	Completed (Mgr Initial)



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