

## Module 14 Overview:



# Food Surface Sanitizing



*TRAINER: Read this page ahead of time to prepare for teaching the module.*

### **PARTICIPANTS WILL:**

1. Understand the importance of food surface **CLEANING** and **SANITIZING**.
2. Explain the **CLEANING** frequency of various utensils and equipment.
3. Mix wiping cloth **SANITIZING** solutions and measure the concentration with test strips.

**TIME:** 15 minutes

**TEACHING LOCATION:** Kitchen

### **MATERIALS NEEDED:**

- Activity: Wiping Cloth Basics (p. M14-5)
  - Bucket(s)
  - Approved **SANITIZER**
  - Test strips
  - Wiping cloths
  - Spray bottles (optional)

### **COPIES REQUIRED:**

- Pre and Post Quiz
- Talking Points (p. M14-4)
- Activity: Wiping Cloth Basics (p. M14-5)
- Fact Sheet: Mixing a Chlorine Sanitizing Solution (p. M14-6)

### **GLOSSARY TERMS:**

- **CLEAN**
- **POTENTIALLY HAZARDOUS FOODS**
- **PPM**
- **SANITIZE**
- **SANITIZER**



## Pre Quiz

# **MODULE 14: FOOD SURFACE SANITIZING**

1. How often should food contact surfaces be washed and sanitized when in continuous use?
  
  
  
  
  
  
  
  
  
  
2. What is the proper concentration for chlorine in a wiping cloth solution?
  
  
  
  
  
  
  
  
  
  
3. What is the proper concentration for quaternary ammonia compound (quat) in a wiping cloth solution?



## Module 14 Presentation:

# Food Surface Sanitizing

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*TRAINER: Read aloud to prepare participants for training.*

**Today We Are Learning About Food Surface Sanitizing.** Before our training begins today there will be a short quiz. The quiz helps the Health Department assess training effectiveness and success. You do not need to write your name on the quiz and you will not be graded. Try your best to answer all the questions and don't share your answers with coworkers. We will be taking the same quiz at the end of training so if you don't know the answers, you'll be learning them today. After the training presentation we will do an activity together followed by some review questions. The training will take about 15 minutes and all of you will be participating.



*TRAINER: Read aloud.*

## What's the Risk?

Food residues on food-contact surfaces and equipment can provide an ideal environment for the growth of disease-causing bacteria, which can easily contaminate other foods. Soiled wiping cloths can also become a breeding ground for bacteria that could be transferred to other surfaces. If food residues are not CLEANED within the required frequency, bacteria may multiply to dangerous levels. Routine CLEANING and SANITIZING of food-contact surfaces and equipment, either after use or at timed intervals, is necessary to prevent the growth of bacteria. In addition, because food debris on any surface may attract insects, rodents, and other pests, all areas of a food establishment must be frequently CLEANED.



*TRAINER: Read aloud.*

## What's the Law?

CLEAN and SANITIZE food-contact surfaces:

- Between cutting different types of raw meat
- Between working with raw meats and ready-to-eat foods
- Anytime contamination has occurred

Store wet wiping cloths in a chemical SANITIZING solution between uses.

Keep chemical SANITIZING solutions at the appropriate concentration and free from food debris and visible soil.

Use test strips for checking chemical SANITIZING solutions.



*TRAINER: Give participants a copy and have them take turns reading aloud.*

## Talking Points

- **CLEAN:** A process that removes soil and prevents accumulation of food.
- **POTENTIALLY HAZARDOUS FOODS:** Foods bacteria will grow in when the temperature is in the danger zone between 41°F and 135°F.
- **PPM:** Parts per million. Used as a measure for sanitizer concentration.
- **SANITIZE:** The final step needed to remove bacteria from food contact surfaces that have just been **CLEANED**. A common **SANITIZING** solution is made up of one teaspoon of bleach to one gallon of water and is used to **SANITIZE** surfaces and equipment.
- **SANITIZER:** Chemicals that reduce disease-causing germs to safe levels.
- Examples of food-contact surfaces and equipment that may require frequent **CLEANING** and **SANITIZING** are: cutting boards, tabletops, slicers, grinders and food preparation sinks.
- The most common **SANITIZERS** used are chlorine (bleach) or quaternary ammonia compounds (quat).
- Food contact surfaces, like cutting boards or knives, must be **CLEANED** and **SANITIZED** at least every 4 hours when used continuously with **POTENTIALLY HAZARDOUS FOOD**.
- Food-contact surfaces used for non-**POTENTIALLY HAZARDOUS FOODS** such as baking equipment must be **CLEANED** at least every 24 hours or whenever contamination occurs.
- Nonfood-contact surfaces such as the outside surface of a refrigerator or utensil storage shelves must be kept **CLEAN** to prevent the accumulation of dirt and food debris.



## Module 14 Activity:

# Wiping Cloth Basics

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**TRAINER:** Give participants copies of activity sheet and corresponding fact sheet(s). Have participants complete individually or as a group.

This activity is intended to show how to set up a wiping cloth solution correctly and how to use chemical test kits to determine proper SANITIZER concentration.

### Supplies needed:

- Bucket(s)
- Chlorine and/or quaternary ammonia (quat)
- Test strips
- Wiping cloths
- Spray bottles (optional)

### Instructions for making a chlorine SANITIZER solution:

1. In a bucket, mix one teaspoon of chlorine in 1 gallon of water.
2. Using chlorine test strips, dip the test strip in the solution to measure the concentration of chlorine SANITIZER.
3. Be sure that the level is at least 50 ppm chlorine.
4. Chlorine should be used with warm water (110°F) for best results.
5. Never mix ammonia-based products with chlorine.

### Instructions for making a quat SANITIZER solution:

1. In a bucket, mix solution according to the directions on the label.
2. Using quat test strips, dip the test strip in the solution to measure the concentration of quat SANITIZER.
3. Be sure that the level is between 150-400 PPM quat.

### Tips:

- Check and change the solution as necessary, especially if solution is visibly soiled.
- Wet wiping cloths must soak in the bucket of SANITIZER solution when not in use to prevent bacteria from growing.
- With spray SANITIZER, use only single-use paper towels or dry cloths and discard or launder after use.
- Label all wiping cloth buckets and spray bottles accordingly.
- Safely use and store wiping cloth solutions away from food.

***It is important to never mix other cleaning chemicals with SANITIZER solutions because of product effectiveness. More importantly, mixing chemicals can be dangerous, which can result in serious illness and even death.***

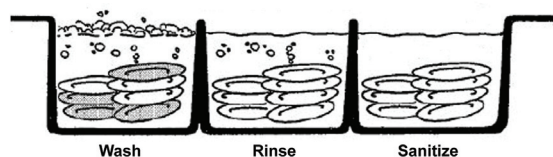


Fact Sheet:

# MIXING A CHLORINE SANITIZING SOLUTION



Graphic Courtesy of Daydots



## Wiping cloth container

100 ppm 1- <u>teaspoon</u> chlorine in 1-gallon water
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## Sink compartment

100 ppm 1- <u>tablespoon</u> chlorine in 3-gallons water
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Tips: 50 ppm chlorine is the minimum required amount in sanitizing solutions.  
Be sure to verify the volume of your own buckets, spray bottles, or sink compartments.

*Public Health – Madison and Dane County (06/04)*



TRAINER: Share one or more of the following "Tales from the Kitchen."



## Tales from the Kitchen

The following are examples of violations observed during inspections.

1. A sub shop cutting board is CLEANED with nothing but a dry cloth as needed throughout the day.

**Problem:** Unsanitized cutting boards breed bacteria.

**Solution:** Cutting boards and other food contact surfaces used for POTENTIALLY HAZARDOUS FOOD need to be CLEANED (detergent and water) and SANITIZED at least every 4 hours to prevent bacterial growth.

2. A deli slicer used for slicing various ready-to-eat meats is sprayed with a SANITIZING solution between uses. At closing the slicer is broken down and CLEANED and SANITIZED at the 4-compartment sink.

**Problem:** A spray SANITIZER is not a substitute for CLEANING (detergent and water) and SANITIZING.

**Solution:** Spraying with a SANITIZING solution between uses is acceptable as long as the slicer is broken down and CLEANED (detergent and water) and SANITIZED at least every 4 hours to prevent bacterial growth.

3. When tested for SANITIZING concentration, a spray bottle with quaternary ammonia compound sanitizing solution measured above 400 ppm on the test strip.

**Problem:** Too much SANITIZER can be toxic.

**Solution:** Quaternary ammonia compound SANITIZING solutions should measure 150 - 400 ppm on the test strip.



## Module 14 Questions:

# Food Surface Sanitizing Review

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*TRAINER: Ask participants to answer the following.*

1. What is the difference between CLEANING and SANITIZING?

**Answer:** CLEANING is the process that removes visible dirt and prevents the accumulation of food residues by using detergent and water. SANITIZING is the process that reduces disease-causing germs to safe levels, by using very hot water or chemicals such as bleach.

2. Why is the chemical SANITIZER concentration so important?

**Answer:** If the concentration is too low the SANITIZER will not be effective in reducing the disease-causing germs to safe levels. Too much SANITIZER can leave toxic residues on the surface of the utensil or equipment.

3. How often should you CLEAN and SANITIZE a slicer used for slicing deli ham throughout the day?

**Answer:** The slicer must be completely broken down and CLEANED and SANITIZED either at the utensil washing area or in-place at least every 4 hours.



## Post Quiz

# **MODULE 14:** **FOOD SURFACE SANITIZING**

1. How often should food contact surfaces be washed and sanitized when in continuous use?
  
  
  
  
  
  
  
  
  
  
2. What is the proper concentration for chlorine in a wiping cloth solution?
  
  
  
  
  
  
  
  
  
  
3. What is the proper concentration for quaternary ammonia compound (quat) in a wiping cloth solution?



## Post Quiz Answers

# **MODULE 14: FOOD SURFACE SANITIZING**

1. How often should food contact surfaces be washed and sanitized when in continuous use?

**Every 4 hours**

2. What is the proper concentration for chlorine in a wiping cloth solution?

**50 – 100 ppm chlorine**

3. What is the proper concentration for quaternary ammonia compound (quat) in a wiping cloth solution?

**200 ppm quat**



## Module 14 Moving Ahead:

# For Managers/Trainers

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*TRAINER: Do not read aloud. These are your next steps, additional activities and resources.*

## After the Training

- Have participants sign Training Verification Log (p. 9), a requirement for **SAFE FOOD CREW** Recognition Program.
- Complete the Trainer's Evaluation Form (p. 10), a requirement for **SAFE FOOD CREW** Recognition Program.
- Present participants with Certificate of Completion (p. 12).
- Track all trainings an employee receives on the Employee Attendance Record (p. 13).
- Develop or review procedures for food surface **CLEANING** and **SANITIZING**.
- Ensure that your food employees know how to safely disassemble equipment for proper **CLEANING** and **SANITIZING**.
- Review equipment manufacturer's manuals for recommended **CLEANING** and **SANITIZING** procedures.
- Post the Mixing a Chlorine Sanitizing Solution fact sheet (p. M14-6) in the kitchen for a quick reference.

## Resources

- FDA 2001 Food Code and Wisconsin Food Code: 3-304.14, Wiping Cloths; 4-302.14, Sanitizing Solutions, Testing Devices; and 4-602, Cleaning Frequency.
- Video: [The Food Protection Video Series: Your Safe Food Training Guide - Vol. 5: Cleaning And Sanitizing.](#) University of Florida/Florida Restaurant Association, 1997. *The University of Florida Food Protection Video Series is ideal for training your food service personnel about the most important aspects of food safety. This volume covers proper cleaning and sanitizing of food equipment and utensils (9:00 min).*