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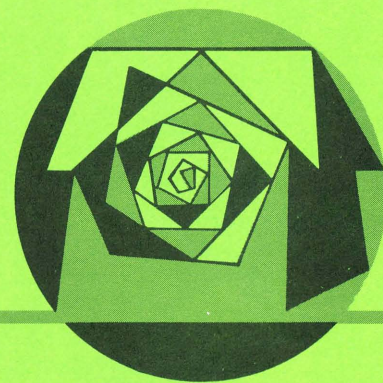
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Don't Let Food Spoil - Expanded Nutrition & Family Programs
Michigan State University
Cooperative Extension Service
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Expanded Nutrition & Family Programs



Don't Let Food Spoil

(A/V)

THE BIG IDEA (Your Goal)

When I (the aide) have taught this lesson, the homemaker will know that:

1. Some microorganisms cause food to spoil.
2. Microorganisms need food, water and heat to live, grow, and cause food to spoil.
3. Food spoilage can be prevented by correct food storage or food preservation.

FACTS BEHIND THE BIG IDEA (For You to Show and Tell the Homemaker)

• Organisms are living things. Microorganisms are **very small** living things. They are often found in or on food. Some microorganisms are helpful:

1. **Mold** — gives Blue cheese its flavor.
2. **Bacteria** — causes milk to sour for use in some breads.
3. **Yeast** — makes bread rise and fruits turn to wine.

• Other microorganisms can cause food spoilage:

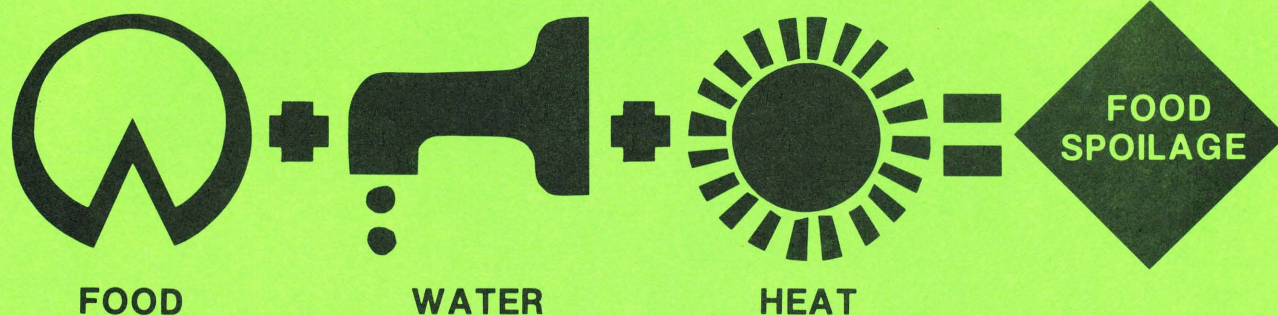
1. **Mold** grows in fuzzy patches on food. Examples: bread, berries.
2. **Yeast** causes food to ferment and sour. Examples: Fermented fruit — peaches.
3. **Enzymes** make food get ripe. If food is allowed to go beyond the ripe stage, it becomes mushy and loses its color. Example: banana turns brown and soft.

4. **Bacteria** causes food to sour. Examples: milk, juice. Bacteria called **Clostridium botulinum** is found in soil, air, and water. It can produce seedlike forms called spores, which resist heat. They are harmless. But the toxin they produce is a deadly poison. The spores will grow and produce poison when there is no oxygen — as in a sealed jar. Spores cannot grow in acid foods such as tomatoes. They can grow in foods such as corn, peas, and green beans. The signs of botulism poisoning begin usually within 12 to 36 hours after contaminated food is eaten. Some symptoms are double vision, inability to swallow, speech difficulty, and progressive paralysis of the respiratory system. Avoid this danger by canning and storing food properly.

• You can keep food from spoiling. Microorganisms need food, water, and a warm temperature to grow. Take away any of these things and you prevent spoilage. The best way to do this for a long storage is with food preservation:

1. **Canning.** Put the food in a sealed container and heat it long enough at the right temperature to kill microorganisms.
2. **Freezing.** Put the food in the freezer so it is too cold for the microorganisms to grow.
3. **Drying.** Take water away from the food.

• If you don't want to preserve the food through canning, freezing or drying, make sure you:



EXPANDED NUTRITION & FAMILY PROGRAMS

1. Buy perishable foods only in amounts you can use.
2. Store foods properly.
3. Use food promptly when ripe or ready to serve.

- If you use canned food:

1. Don't buy cans of food that are swollen, leaking, or bent.
2. Home can foods such as meat, poultry, string beans, and corn in a pressure cooker. Make sure your pressure cooker is working properly.
3. Heat home canned meat and vegetables for 10 minutes at boiling temperature **before** tasting them.

THINGS TO DO BEFORE VISIT

Get samples of food spoilage such as molded bread, soured fruit, overripe banana. Be prepared to discuss these foods and the causes of food spoilage with the homemaker.

HOW DO YOU KNOW SHE LEARNED?

When the homemaker recognizes the causes of food spoilage, she can learn to prevent spoilage. Can she tell ways to prevent food spoilage in her home?

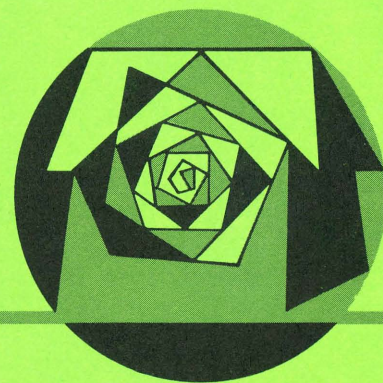
REFERENCES (Available in Your State)

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Issued September 1977.

Expanded Nutrition & Family Programs



Don't Let Food Spoil

(A/V)

(Use this sheet on home visits)

THE BIG IDEA

You can prevent food spoilage by:

- Buying fresh food only in amounts you can use.
- Storing foods properly.
- Canning, freezing, or drying food.

HOW TO PRESENT THE BIG IDEA

- Show examples of food spoilage.
- Discuss causes of food spoilage.
- Talk about ways to keep food from spoiling.
- Ask the homemaker about her problems with food spoilage. Help her fill in the homemaker handout.
- See if the homemaker wants to learn more about food preservation.

HOW DO YOU KNOW SHE LEARNED?

You could ask the homemaker some questions:

1. What happens if bread is left in the wrapper at room temperature for a week or two?

Answer: In a warm kitchen, bread gets damp. It molds.

2. Why don't you have to store dried pinto beans in the freezer?

Answer: Dry beans keep without freezing or canning.

3. Why keep frozen food cold until you cook it?

Answer: Freezing does not kill microorganisms. It just stops their growth temporarily until they warm up again.

EXPANDED NUTRITION & FAMILY PROGRAMS

What Makes Food Spoil?

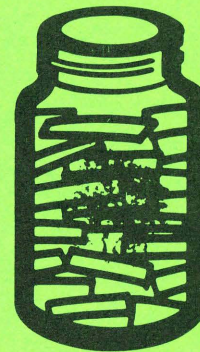
Mold can cause
molded bread.



Yeasts can cause
fermented fruit.



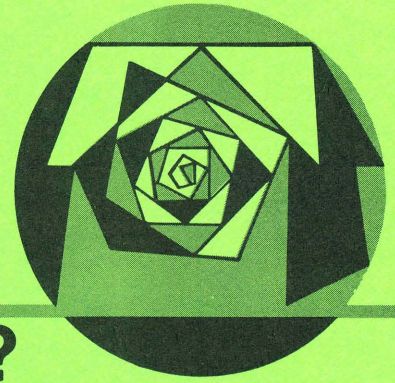
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food to spoil
and decay.



Enzymes can cause
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Expanded Nutrition & Family Programs



What Makes Food Spoil?

(H)

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molded bread.



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EXPANDED NUTRITION & FAMILY PROGRAMS

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Don't Let Food Spoil

Did any foods recently spoil in your home?

Yes _____ No _____

What was spoiled?

Why did the food spoil?

**What Kinds of Foods
Sometimes Spoil at
Your House?**

**Example:
Molded hamburger buns**

**Can You Think of Ways
to Save the Food?
Write Them Down.**

**Example:
Freeze the Buns**
