



Basic Vegetable Gardening

Lesson 16: Cooking to Maintain Nutrition

Lesson Summary: Members will cook several vegetables using different cooking methods. They will compare the taste, texture, color and how well the nutrients stay in the vegetable.

Intended Learning Outcomes:

Members will see how cooking removes nutrients from produce.

Length: 60 minutes

Materials:

- Vegetables for cooking
- Cooking supplies
- Notebooks for taking notes
- Vegetables to eat raw

Background: Preparing and cooking food for eating is the last step in growing a garden.

Lesson Steps

1. (5 minutes) – Introduction

Today members will learn about different ways of cooking garden produce. Some cooking methods take out a lot of the nutrients from the produce, so it is important to think about the different ways of cooking before deciding how to prepare a vegetable.

2. (5 minutes) – Discuss different ways of cooking vegetables.

Ask members to explain different ways to cook vegetables. If they need more help, ask them to describe different ways they have eaten carrots, greens, onions and other specific vegetables.

Expected Results: Members may say that they have eaten vegetables raw, dried, fried, cooked in a pan, boiled, steamed, and with other foods.

3. (35 minutes) Cook some vegetables.

3.1 (25 minutes) Cook the vegetables several different ways. The goal is to have the members taste vegetables prepared in several different ways, such as raw, dried, fried, boiled, and steamed. You could either have the members cook the vegetables during the gathering if you have the equipment. Or you can have some of the members prepare the vegetables before the meeting and simply have the entire group look and compare how the same vegetable tastes different depending on how it is cooked.

Note: It is important to have both girls and boys do some of the cooking so both learn the nutrition lesson well.



3.2 Compare (10 minutes) Write this chart on the board and fill it out with descriptions of the taste and texture of each vegetable. Change the chart as needed.

Vegetable	Dried	Raw	Boiled	Steamed
Carrots				
Sweet Potato				
Greens				

3.2 Discuss the taste of each of the foods cooked different ways.

Which cooking methods did they like best for each vegetable?

Which cooking method is the most practical for our households?

Did any of our foods change color? (This is most likely to happen with green foods or cauliflower.) Sometimes the color changes are due to the acid in the foods. This does not change the nutrition of the food.

4. (10 minutes) Discuss the nutritional value of the vegetables.

Ask the students which type of preparation they thought was the healthiest. Ask several members for their opinions and ask them to explain their opinions.

Tell students that most foods are healthier when they are eaten as directly from the garden as possible (and washed). Vitamins are very sensitive to heat, water and oxygen and are easily destroyed when we bake, cook or dry the fruit and vegetables that contain them.

For example, when we boil greens, many of the vitamins move from the greens into the water. When we cook tomatoes, some of the vitamin C is destroyed by the heat. Drying yellow- or orange-fleshed sweet potatoes destroys the vitamin A that helps our eyes.

Explain that it is best to cook fruits and vegetables with as little water – and in as short a time – as possible. That way, when you pour off the excess water, you are pouring out fewer nutrients. Better yet, do not waste the water and instead use it as a base for soup or sauce.

5. (2 minutes) Ask the members to summarize what they learned.

- Do not overcook – cook as lightly as possible.
- Try steaming rather than boiling.
- Cook using very little water. This works best with vegetables that are not over-ripe.
- If you boil vegetables, use the water for soup or sauce.



- Make dishes like soups and stews that use the cooking water as part of the dish.
- Put fruit and vegetable peels on the compost heap. This will improve the nutrition of the soil.

6. (5 minutes) - Summary and Debrief

Ask the members these questions:

- How does the cooking method affect the taste, texture, smell, and color of the vegetable?

Answer: Sometimes the color changes due to the acid in the foods. Some methods, such as boiling, make the food softer. Steaming keeps it crispy.

- How does the cooking affect the nutrient content of the vegetable?

Answer: The longer food is cooked, the more nutrients are destroyed by heat or leached into the cooking water.

- What does orange- or green-colored cooking water indicate?

Answer: The color shows how nutrients are lost in boiling.

- What did you discover about eating vegetables prepared differently?

Answers will vary.

- What is the best way to prepare each of the foods to have them be the most nutritious while still tasty and appealing?

Answer: Will vary by food. Boiling is a poor method because many nutrients are thrown away with the water. Steaming is better than boiling. However, boiling is very common in Africa. Discuss the best way to boil to preserve vitamins.

- How can people who are food insecure make the most of the food they do have?

Answer: Responses will vary

7. (1 minute) - Close



Cooking and eating are the last steps in food production. Review with the boys and girls some of the things they've learned since they first planned and planted a garden. Discuss what lesson will be next.