



# Champaign County Juvenile Detention Center Master Gardener Community Garden

## Peppers Lesson

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### Time

15 – 30 minutes

### Overview

Peppers, both hot and sweet, are common garden vegetables and familiar to most people. This lesson explores the pepper plant.

### Objectives

Students will:

- Discover different varieties, colors, and heat of peppers.
- Learn how to plant, care for, and harvest peppers.
- Learn about the nutritional value of peppers and how to prepare them in tasty ways.

### Supplies

- Different types and colors of bell pepper, sliced
- Hot peppers, sliced with membranes removed
  - Reserve a whole pepper of each variety for identification
- Paper towels and paper plates

### Snack

- Peppers for tasting
- Juice/water
- Ranch dressing

### Activity

Planting, harvesting, and tending peppers

Tasting various types of peppers

### Sources

<http://www.urbanext.illinois.edu/veggies/peppers.cfm>

# Peppers

**DO:** Begin by introducing yourself and the other Master Gardeners by first names.

**SAY:** Good afternoon. We are a group of Master Gardeners of Champaign County here to provide a gardening program today at JDC. In the fall and winter months we come every other week to give a lesson on plants, eating right, and taking care of the planet. In the spring and summer we work together with you to plant and maintain a vegetable and flower garden in the outside rec area. (depending on time... I became interested in gardening because... Does anyone else have gardening experience or a relative who gardens?)

Today's lesson will be... I am... with other volunteers... (introduce themselves).  
(Participants may introduce themselves also.)

Today we are going to talk about a popular type of garden vegetable, peppers.

Peppers are tender, warm-season vegetables.

## **What does this mean?**

Pepper plants require hot summers to grow well, and don't thrive in cold weather. Peppers grow more slowly and are smaller than most tomato plants.

For years, bell peppers were green, but in the past few years a variety of colors have begun to be marketed. In the grocery store you can find green, orange, and red, but purple, brown, white, and even lilac peppers can be grown.

Peppers make great ornamental plants because they have a compact shape when they grow. They do not get large, floppy or rangy when full grown. They also have colorful fruit that catches the eye.

**DO:** Point out the difference between the pepper bed and tomato bed.

**SAY:** But peppers are most commonly raised for food and as a spice. They are eaten green or ripe and are used for salads, stuffing, soup, stews, relishes and pickling.

The sweet varieties of peppers, especially the bells, traditionally have been by far the most popular in the United States. If a pepper has very little to no heat it is referred to as a sweet pepper.

The hot pepper varieties have also enjoyed a rebirth of popularity recently, mainly due to various ethnic cuisines that use their unique flavors and heat creatively.

## **When to Plant**

Pepper plants cannot tolerate frost and do not grow well in cold, wet soil. When night temperatures are below 50° to 55°F, the plants grow slowly, the leaves may turn yellow

and the flowers drop off. Raised beds and black plastic mulch may be used to warm and drain the soil and enhance the environment of young pepper plants when cool weather persists in spring.

### **Spacing and Depth**

Set plants 18 to 24 inches apart in the row, or 14 to 18 inches apart in all directions in beds. A dozen plants, including one or two salad and hot types, may provide enough peppers for most families; but with so many colors, flavors and types available, it is fun to raise a wider variety of peppers.

### **Care**

Peppers thrive in a well-drained, fertile soil. They also require a regular supply of water. Use a starter fertilizer when transplanting. Apply supplemental fertilizer (side-dressing) after the first peppers are set.

Because a uniform moisture supply is essential with peppers, especially during the harvest season, water during dry periods. Hot, dry winds and dry soil may prevent fruit from setting or cause small immature fruits to suddenly die.

### **Harvesting**

Fruits may be harvested at any size desired. Green bell varieties, however, are usually picked when they are fully grown and mature—3 to 4 inches long, firm and green. When the fruits are mature, they break easily from the plant. Less damage is done to the plants, however, if the fruits are cut rather than pulled off.

The new, colored bell pepper fruits may be left on the plant to develop full flavor and ripen fully to red, yellow, orange or brown; or they may be harvested green and immature. Some (including "white," light yellow, lilac and purple) are colors that develop in the immature fruit and that should be harvested before actually ripening, when they turn red.

Hot peppers are usually harvested at the red-ripe stage; but "green chilies," the immature fruits, are also required for some recipes. Some dishes may actually call for a specific variety of chili to be authentic.

Always be careful when handling hot varieties, because skin, noses and eyes may become painfully irritated. Plastic or rubber gloves may be helpful when picking or handling hot peppers.

### **Sweet Peppers**

Sweet green bell-shaped peppers are the most popular garden variety. Left to ripen, they turn red, purple, orange or yellow and gain various levels of sweetness depending on the variety. Although the paler green and yellow tapering varieties have more flavor, all sweet peppers are similar in flavor and texture. They are crisp and refreshing raw, and pleasantly assertive when cooked to tenderness.

Green bell peppers are a main ingredient in Louisiana Creole and Cajun cuisine as well as Italian and Mediterranean cooking. Peppers can be harvested from July to October. They are delicious in the green stage, the sweeter ripe stage or anywhere in between. Due to the short Chicagoland growing season, many sweet peppers never reach full maturity/ ripeness.

### **Chili Peppers**

Chili peppers are famous throughout the world, from the fiery cuisines of Mexico, India, Thailand and Africa to the subtle flavor enhancement of the most delicate dishes. The hot varieties can also be picked at any color stage, but are hottest if allowed to fully ripen. Chili peppers ripen through a wide range of colors from yellow, orange, purple and even brown. Some chili peppers turn bright red, which is more often an indication of ripeness rather than hotness.

Chili peppers are perennial subshrubs native to South America, which are grown as annuals in our colder climate. They range in hotness from mild to fiery hot. The burning sensation is attributed to chemical compounds called capsaicinoids, which are stored in the light-colored veins, on the walls, and surrounding the seeds. Capsaicin acts on the pain receptors in the mouth, not the taste buds. Experts agree that long hot dry summers produce the best (hottest) chili peppers.

### **Nutritional Value and Health Benefits**

Nutritionally, peppers vary depending on the variety and stage of maturity. In general, all peppers are a good source of vitamin A and C; the red ones are bursting with these two antioxidants. Antioxidants are a group of nutrients that neutralize free radicals in the body fluids reducing the risk of disease.

### **Additional Notes**

In the U.S. the term sweet pepper covers a wide variety of mild peppers that, like the chili, belong to the capsicum family. The best known sweet peppers are bell peppers, named for their bell-like shape. They have a mild, sweet flavor and crisp juicy flesh.

When young most bell peppers are a rich, bright green, but there are also yellow, orange, purple, red and brown bell peppers. Red bell peppers are green bell peppers that have ripened longer and are very sweet. The red heart-shaped pimiento is another popular sweet pepper. Pimientos are the familiar red stuffing found in green olives.

Other sweet pepper varieties include cachucha, European sweet, bull horn (thin, curved and green); Cubanelle (long, tapered, yellow to red); and sweet banana pepper (long, yellow, banana-shaped.).