

# Pepper

## Grow

In the nutrition or culinary world, peppers are considered a vegetable. Botanically, peppers are the fruit of the *Capsicum* plant. Peppers are categorized in 2 groups:

1. Sweet peppers (which are mild)
2. Chile peppers (which are hot)

California, Florida and Texas grow the most peppers in the United States. New Jersey, Georgia, North Carolina, Ohio, and Michigan also have significant pepper production.

### How to Grow?

Peppers are started from seeds indoors in a container (in a greenhouse or on a window sill) in late winter (6-8 weeks before planting). The seedlings are planted outside during early spring. Or, transplants (4-6 inches tall) can be planted in late spring or early summer. In beds or rows, space pepper plants 15-18 inches apart. The plants cannot tolerate frost, cold wet soil, or temperatures below 55°F. Peppers can be available year round in the United States. Peak harvest is mid-June to mid-August in N.C.<sup>1-3</sup>

**Fun Fact:** Green bell peppers are the most popular type of bell pepper in the United States.<sup>2</sup>

## Choose

### Pick a Peck of Peppers

Sweet or spicy, there is a pepper for every taste. Sweet pepper varieties include Banana, Bells, Cubanelle and Pimiento. Hot peppers include Ancho, Cherry, Chile de árbol, Habanero Hungarian Wax, and Poblano. Sweet peppers are most often picked when green (immature). Sweet green peppers can mature into red, yellow, orange or purple with varying sweetness. Sweet green peppers are cheaper than their more brightly colored counterparts because they are quicker and easier to produce (due to a shorter ripening time). Chile or hot peppers can be picked at any stage. They offer the most heat when fully ripe.<sup>1-3</sup>

**Fun Fact:** Green bell peppers are usually picked when they are fully grown and about 3-4 inches long.<sup>1</sup>



## Store

### Wash before eating but not before storing

Peppers should be firm, glossy and have a rich green, red or yellow color. Discard any that are soft, mushy or have decay. Store in the coolest part of the pantry or store room or warmest part of the refrigerator. There is a risk of chill damage if peppers are stored at a temperature that is too cold (45-50°F, 85-95% relative humidity). The typical shelf life is 8-10 days. Store away from ethylene producers such as apples, bananas, pears and tomatoes and away from foods that absorb odors. Do not wash before storing.<sup>4,5</sup>

**Fun Fact:** November is National Pepper Month!<sup>4</sup>

## Use

Before eating or cooking, wash peppers under clean, running water. Remove the stems, seeds and white inner membrane. Bell peppers are versatile and can be enjoyed raw or cooked. Eat raw bell peppers as a snack, with low fat dressing, hummus or salsa. Peppers can also be steamed, baked, roasted, grilled or stir fried. They are often added to soups, salads, pasta, casseroles, burritos, tacos and omelets. Bell peppers are great stuffed with fillings like tomatoes, rice, beans, tofu, ground meat or poultry, and/or cheese and then baked. Bell peppers can also make a tasty pickled treat to top any dish!<sup>4,5</sup>

# Pepper

## Teach

The wild pepper plant originated 9,000 years ago near Bolivia and Peru. Pepper seeds were spread throughout Central America by wind and settlers. Columbus and Spanish explorers discovered peppers when searching for peppercorn plants to manufacture black pepper. Columbus took pepper samples back to Europe, where they became very popular and spread to Africa and Asia. Peppers were brought to the United States in 1583.<sup>1-3</sup>

### **Fruit or Vegetable?**

Although most people think of bell peppers as vegetables, they are actually fruits because they are produced from a flowering plant and contain seeds. Based on their nutrient content, bell peppers belong in the vegetable food group. Eating a variety of peppers can help you reach your goal of making half of your plate fruit or vegetables.<sup>1-5</sup>

**Fun Fact:** Pepper's scientific name is *Capsicum annuum*.<sup>1-3</sup>

### **Class Activity - Pepper Predictions**

#### **Materials Needed:**

- 3 different colored bell peppers, whole
- 3 different colored bell peppers, top sliced off
- Variety of bell peppers washed, sliced (for tasting)
- Microscope and/or magnifying glass
- Printed botanical image for peppers (See Harvest of the Month pepper newsletters - link in references.)

#### **Steps: \*Use food safety steps. Wash hands and produce.**

1. Wash hands thoroughly with soap and water.
2. As a class, examine the variety of peppers and make predictions if they will smell and taste differently.
3. Divide the class up into 3 groups.
4. Pass out 1 whole pepper to each group for students to explore the feel, look and smell and note observations. Rotate the peppers among the groups.
5. Pass out 1 of the sliced-open peppers to each group, along with the botanical image. Have students compare and label the parts.
6. Allow students to taste each of the sliced peppers and record predictions/observations and vote on favorites.<sup>3</sup>

## Eat

Peppers are naturally cholesterol free and low in fat and sodium. A ½ cup serving of chopped sweet green bell pepper has 15 calories. Peppers are an excellent source of vitamin A and C. Red bell peppers have 1.5 times the amount of vitamin C, 4 times the amount of folate and 9 times the amount of vitamin A of green bell peppers. Red bell peppers have 158% of the Daily Value of vitamin A and over 46% of the Daily Value for vitamin C. Red chili peppers have 1.5 times the amount of potassium of green or red bell peppers. Vitamin A promotes normal vision, supports the growth and health of cells and tissues, protects us from infection, and helps regulate the immune system. It also works as an antioxidant in the form of carotenoids (which form vitamin A). Vitamin C helps form collagen to hold muscles, bones and tissues together, protects us from infections and bruising, aids in healing, keeps our gums healthy, helps our body absorb iron and folate from plants and acts as an antioxidant to prevent cell damage. Folate is needed for blood cell, DNA and genetic development. Potassium helps regulate fluids and mineral balance, maintain normal blood pressure, transmit nerve signals and contract muscles. Lutein in peppers may contribute to maintaining healthy vision.<sup>5-7</sup>

**Fun Fact:** Capsaicinoids in hot peppers create the hot feel in the mouth. Capsaicin, the primary capsaicinoid, is a flavorless, odorless substance that acts on pain receptors. The amount of capsaicin or "heat" in peppers is measured in Scoville units. Drink milk to cool the heat of peppers.<sup>3,7</sup>

## Find

For more pepper info and resources, visit:

1. North Carolina State Extension, [www.ces.ncsu.edu](http://www.ces.ncsu.edu)
2. Wisconsin Department of Public Instruction, School Nutrition, <https://dpi.wi.gov/school-nutrition/programs/fresh-fruit-vegetable>
3. California Harvest of the Month, <http://harvestofthemonth.cdph.ca.gov>
4. U.S. Department of Agriculture, Food and Nutrition Service, [www.fns.usda.gov](http://www.fns.usda.gov)
5. Produce for Better Health Foundation, <https://fruitsandveggies.org>
6. USDA Food Composition Databases, <http://ndb.nal.usda.gov>
7. Academy of Nutrition and Dietetics, [www.eatright.org](http://www.eatright.org)