



TOMATO

Health Benefits

- ◆ Tomatoes are a good source of vitamin A, vitamin C, vitamin K, potassium, and lycopene.
- ◆ Lycopene is an antioxidant that may decrease the risk of certain cancers and helps to keep the immune system healthy.
- ◆ Middle school students need 2 - 3 cups of vegetables per day.
- ◆ One large tomato counts as 1 cup of fruit.

Fun Facts

- ◆ Tomatoes gain weight as they ripen.
- ◆ The heaviest tomato ever grown weighed nearly 8lbs.
- ◆ Botanically, the tomato is a fruit. It is formed out of a flower and has fleshy material covering seeds.

Home Grown History

Tomatoes can be traced back to the Andes Mountains in Peru. These tomatoes grew in the wild and were the size of cherries. The Incas and Aztecs began cultivating tomato plants as early as 700 A.D. The Spanish conquistadors brought tomato seeds with them back to Europe in the 1500's where they grew in popularity in Italy, Spain, and Portugal.

Tomato popularity was very slow to develop throughout the rest of Europe. Most people believed the food to be poisonous, likely due to it being a member of the nightshade family. This family includes a number of edible fruits, but many of the family's plants are highly poisonous. In fact, eating the stems and leaves of the tomato plants can cause illness and should be avoided. However, by the middle of the 18th century tomatoes were extensively being grown for food.

Tomato popularity gradually grew in the United States following the Europeans' use of it as a food. Thomas Jefferson was one of the first Americans to grow tomatoes at his Virginia home as early as 1781. By 1812, tomatoes were gaining in popularity among Louisiana Creoles who used them in jambalayas and gumbos and Maine cooks who added them to seafood dishes.

In the 1893 U.S. Supreme Court case of "Nix v. Hedden," the tomato was declared a vegetable, along with cucumbers, squashes, beans, and peas. This came about as a result of tariff laws in 1887, which imposed a duty on vegetables but not fruits.



Student Activities

- ◆ Have students investigate how botanists define fruits and vegetables. Ask them to explain why the tomato is sometimes called a vegetable instead of a fruit.
- ◆ As a class, identify three nutrients found in tomatoes. Have students research some of the health benefits of these nutrients.
- ◆ Arrange for the class to work in small groups (3-5 students). Each group creates a recipe for a nutritious snack that uses tomatoes or tomato products. Have the group members write a recipe for their snack.
- ◆ Tomatoes are eaten by people throughout the world. Have students research at least three different cultures that use tomatoes, traditional meals, and how the meals vary.

Growing Tomatoes in Wisconsin

Tomatoes are a popular crop in most home gardens in Wisconsin. Tomato plants are warm-weather perennials that are grown as annuals in cold climates. Wisconsin's short growing season usually requires that tomato plants be started indoors, such as a greenhouse.

Tomato plants are very sensitive to frost, so it's important to wait to plant outside until the dangerous frost has past and soil temperatures are favorable. If tomatoes are planted outdoors in early spring and temperatures drop below 45 degrees, plants need to be protected.

Tomato plants may be determinate, semi-determinate, or indeterminate. Determinate plants are more compact and produce fruit all at once. While indeterminate plants are vining and flower over an extended period of time.

A wide assortment of tomato cultivars are available. Fruit color, size, and disease resistance are all factors to consider when selecting a cultivar. For example, heirloom tomatoes offer a full flavor and unique characteristics, but are more susceptible to diseases and malformed fruit.

Cultivars also differ in growth habits. Tomato categories include early crop, main crop, paste, and cherry. Cultivars suited to growing in Wisconsin include Early Girl, Beefmaster, Brandywine, Roma, Jubilee, and Gardener's Delight.

Beyond the Classroom

Ask students to note during their next trip to the grocery store if the fresh tomatoes are from abroad, out-of-state, or grown by local farmers. If the store does not purchase tomatoes from local growers find out why not. Propose options for stores to consider purchasing tomatoes from local or regional growers.

For More Information:

The Florida Tomato Committee:
<http://www.floridatomatoes.org/>

University of Wisconsin Extension:
<http://clark.uwex.edu/files/2010/10/Tomato.pdf>

Classroom Cooking—Pico de Gallo

Makes 36 taste test servings (1/4 cup)

Ingredients:

- 3 pounds tomatoes, chopped
- 4 1/2 cups chopped onion
- 1 cup chopped fresh cilantro
- 9 jalapeño peppers, seeds removed and chopped
- 6 cloves garlic, finely chopped
- 6 tablespoons lime juice
- 3/4 teaspoon salt
- Baked tortilla chips
- Paper cups

Directions:

1. Combine all ingredients in a large bowl.
2. Serve in small cups with baked tortilla chips

<http://www.harvestofthemonth.cdph.ca.gov/>



Exploring Wisconsin Tomatoes—Taste Test Activity

What You Will Need:

- 3-5 tomatoes, sliced per group of 6-8 students. Select different varieties to taste, such as Roma, Cherry, Grape, Heirloom.
- *Home Grown: Tastes of WI* resource guide
- Taste test survey, paper and pencils

Activity:

- Have students observe, touch, smell, and taste each tomato variety and make notes describing the different tastes. Extend the activity in class by comparing and contrasting the varieties and making a graph showing the likes and dislikes of the class.

