

Tomatoes and Tomatillos



Nutritional Components of Tomatoes

Carbohydrates
Water
The mineral potassium
Vitamins A, C, E, K, B5 (pantothenic acid), B6 (pyridoxine), B7 (biotin), and B9 (folate)

Tomatoes, like white potatoes, are members of the nightshade family or **Solanaceae**. Tomatoes were discovered **growing wild** in the fields of Peru and Ecuador around 700 AD. They were once thought to be **poisonous** but are now the most popular plant in vegetable gardens. Most **gardeners** believe that a home-grown tomato tastes much better than one purchased in a store.

Successful tomato growing depends on a few factors: good soil, the right varieties, early planting, sunlight, consistent watering, and wise fertilizing.

Planting: Bury tomato plants deeper than they grow in the pot. Bury them all the way up to a few top leaves. They are able to **develop roots** all along their stems. Frequently two seeds germinate in the same pot. Since you do not want them **competing**, one stem should be cut and placed in a container of water. Roots will form along the cut stem and the new plant will eventually be ready to join the other tomatoes in the garden.

Tomato plants need at least 8 hours of **sunlight** per day to produce a good crop. Raised beds with well-draining soil rich in organic matter encourage growth and production. Regular watering will avoid a number of problems. Most tomato plants stop **blooming** after daytime temperatures rise above 90 degrees F. or nighttime temperatures rise above 70 degrees F.

Each kind of tomato is in one of the following categories:

(1) Indeterminate tomato plants continue to grow in length through the growing season. Also referred to as "vining" tomatoes, **indeterminate** tomato varieties will set and ripen fruit over a long period until the weather becomes too hot or the plants are killed by frost.

(2) Determinate tomato plants are varieties that grow to a fixed mature size. Most of the fruits on a plant ripen in a short period, usually about 2 weeks. Once this first flush of fruit has ripened, the plant will begin to diminish in vigor and set little to no new fruit. **Determinate** tomato plants are usually shorter than indeterminate and are often referred to as "bush" tomatoes.

Tomatillos, or husk tomatoes, are also in the Solanaceae family and are considered a staple in Mexican cooking. The fruit is green and about the size of a cherry tomato. It is covered by a papery, inedible husk that is removed before use. The tomatillo plant needs a lot of space. At least 2 tomatillo plants must be planted together for cross pollination. Think salsa verde!



Questions:

If you wanted to make lots of spaghetti sauce at one time, would you plant determinate or indeterminate plants? _____ Why? _____

How many hours of sunlight should tomatoes have each day? _____

Most tomato plants will not set blooms when the daytime temperatures rise above _____ ° F and the nighttime temperatures stay above _____ ° F.

We usually harvest tomatoes just as they start to turn red and let them ripen on a counter or table.

Why do we not let them turn red on the vine? _____

Peppers and Eggplants



Peppers are tender, warm-season vegetables that originated in the **Americas**. They are all in the nightshade family. The plants require warm temperatures, **grow more slowly**, and are smaller than most tomato plants. We will plant our peppers in the garden about the beginning of April. They hate cold temperatures and love to be fed once the weather gets warm. We usually buy plants from the garden centers instead of planting seeds.

Nutritional Components of Peppers and Eggplants

Carbohydrates
Water
The mineral potassium
Vitamins, A, C, K, B6 (pyridoxine), and B9 (folate)

Varieties: There are hundreds from which to choose. The “sweet” varieties of peppers are the most popular in the U.S. In our garden we will be planting the traditional green bell peppers along with red, yellow, orange and purple peppers. A variety called Gypsy, a small yellow bell pepper that eventually turns red, is always prolific. Bell peppers start off green but can be left on the vine to ripen and develop color and flavor. Another sweet variety we like to grow is called banana pepper.

Peppers may taste hot or sweet. The chemical that makes some peppers taste “hot” is capsaicin. It can only be tasted by mammals. Some peppers are so “hot” that the capsaicin will blister exposed skin. This is why we only grow “sweet” peppers in the school garden.

Planting: Prepare the soil, dig holes slightly larger than the pots, and mix fertilizer and compost in the holes. Plant the **transplants** level with the soil in the pot. Add mulch around the peppers to keep out weeds and retain moisture. As the peppers develop, continue to fertilize them as they love to eat. Gardeners often make the mistake of using a fertilizer with too much nitrogen. The result is a great looking bushy, green plant, but with few peppers.

Do we feed peppers with lots of Nitrogen? _____ Why? _____

Eggplants were cultivated in China as early as 600 BC, but are thought to have originated in India before then. From India they spread to the Middle East where they became a popular Arab food. By the 16th century eggplants were being grown throughout Europe.



Eggplants are also a member of the **Solanaceae** family. They grow on a bush, which produces variously shaped fruit over a long period. Our most common type is the glossy, smooth-skinned, teardrop-shaped eggplant with dark purple skin. The spongy flesh inside is white to creamy white and has many small **edible** seeds. Varieties may be long and thin, round, or egg shaped. Colors may be white, white with red stripes, to purplish-black, yellow or orange.

Planting: Eggplants need the same growing conditions as tomatoes and peppers and are planted around the same time of year. Typically we purchase seedlings to plant in the garden. Eggplants mature in about 70 days.

Harvesting: Cut the stem of the eggplant with a pruner when it is a mature size, which varies with different varieties. Handle eggplants gently as they are damaged easily. Eggplants do not store well so it is best to use them soon after they are harvested.