

THE OUTSIDER

Illinois Extension Horticulture serving Henry, Mercer, Rock Island, and Stark



TOMATO: BELOVED GARDEN CROP WITH A STORIED HISTORY

Vegetable gardening is a popular hobby for many people and the reasons for gardening are diverse. Many grow gardens as a way of connecting with nature or relaxing, others enjoy harvesting fresh produce, some enjoy growing unique vegetables otherwise hard to achieve, and others like the thrill of racing neighbors to have the first garden-fresh tomato. The competition for this last reason might be fierce because according to the National Gardening Association, tomatoes are grown by 86 percent of people with a food garden.

Tomatoes (*Solanum lycopersicum*) are warm-season crops native to Central and South America where indigenous people first cultivated them. When Spanish explorers arrived in the region during the 16th century, the tomato began its world conquest. Tomato seeds were first transported from modern-day Mexico to Spain but quickly spread throughout Europe.

GROWING A GOOD TOMATO

To grow a good tomato begins with appropriate garden planning. Tomatoes require full sun with space between each plant to help manage pest and disease issues. Each plant requires approximately 24 to 36 inches of garden space.

When shopping for tomatoes and choosing a cultivar, the growth habit of the tomato should be considered and the type of tomato desired will influence selection. Tomatoes are categorized into two categories that describe how they grow throughout the season.



Illinois Extension
UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

College of Agricultural, Consumer and Environmental Sciences
University of Illinois, U.S. Department of Agriculture, Local Extension Councils Cooperating.
University of Illinois Extension provides equal opportunities in programs and employment

Determinant varieties produce tomatoes on the growing tips, a process that halts vegetative growth and limits the plant's overall size. Determinant cultivars are good for small spaces or container gardening. They generally do not require support.

Indeterminate varieties set fruit on side branches so the vegetative growth will continue to develop all season long. This non-stop vegetative growth, over time, produces much larger plants that require more space and trellising.

Beyond growth habit, the type of tomato desired must be considered. Over time, tomatoes have been bred to produce a variety of types of fruit that include slicers, sauce, and cherry. Slicers are large, round varieties that have a higher juice and seed content than other types. Sauce tomatoes (also called plum) are meaty, oblong tomatoes that are good for creating sauces and canning. Cherry tomatoes are the smallest type of tomato and can be consumed whole. They contain high levels of juice and seeds. All types of tomatoes are available in a variety of colors including red, yellow, purple, and variegated.



HARVESTING AND STORAGE

Harvest tomatoes when they are fully ripe meaning they are firm and have fully developed their color. Tomatoes are best left to ripen on the plant. Immature fruit can be harvested and ripened off the plant by picking when color is beginning to show.

Store tomatoes at room temperature out of direct sunlight. Do not refrigerate tomatoes because it causes a deterioration of flavor and quality.

TOMATO TROUBLES

Tomatoes often exhibit signs and symptoms that cause concern. Some are a cause for concern while others don't affect fruit production or quality.

- Leaf curling: The leaves of tomato plants may exhibit a physiological condition where the leaf margins curl. This is not a cause for concern and is not an indication of poor plant health or reduced fruiting capabilities.



- Zippering: Long, thin brown scars on the surface of a tomato are abnormalities caused when a part of the fruit flower attaches to the fruit during development. The mark looks like a zipper and usually runs the length of the fruit from top to bottom. There is no treatment to prevent zippering and the fruit is edible.
- Blossom end rot: In the early stages, blossom end rot appears as a light tan lesion on the end of the fruit and develops into a black, leathery spot with time. The cause is a lack of calcium in the fruit. Factors contributing to the development of blossom end rot include drought stress, fluctuating soil moisture, waterlogged soils, or rapid growth in response to excess nitrogen. Consistent but not in excess moisture is recommended.



Photo by Chris Enroth



ARE TOMATOES POISONOUS?

During the sixteenth century, tomatoes were wrongly assumed to be poisonous and the reputation has persisted. Tomatoes are high in acidity which can react with certain metals. In the 1700s, European aristocrats dined on plates made of pewter, a metal alloy containing lead. When tomatoes were a part of the meal, the acidity reacted with the tableware to leach lead into the food. On occasion, a person of means passed, and the reason was attributed to the tomato itself, when in fact those who died did so as a result of lead poisoning, not tomatoes directly.

Tomatoes are a member of the *Solanaceae*, also known as the nightshade family. Members of this plant family produced a variety of chemical compounds, some of which can be toxic at certain doses. Popular crop-producing plants in this family include potatoes, peppers, eggplant, tomatillo, and tomato. More lethal members of the *Solanaceae* family include belladonna (*Atropa belladonna*), mandrake (*Mandragora* spp), Jimson weed (*Datura wrightii*), and tobacco (*Nicotiana tabacum*).

OUTSIDER ACTION

Try these activities to be more of an Outsider

- Go to a farmers market and purchase a variety of tomatoes; then host a taste test with family and friends
- If you grew too many, donate extra tomatoes to a local food pantry.

Don't miss an issue - Sign up for The Outsider to be sent to your email!
@ go.illinois.edu/TheOutsider



Emily Swihart, Horticulture Educator
Tracy Jo Mulliken, Program Coordinator

321 West 2nd Avenue, Milan, IL 61264
(309) 756-9978
Email: ESwihart@illinois.edu