Tomatoes are one of the most popular garden vegetables. They are easy to grow and produce a lot of fruit rich in vitamins A, B and C. They can be used fresh or cooked, in salads or sauces, or can be frozen, dehydrated or canned. Tomato fruit can be red, pink, white, orange or yellow, depending on the variety. Most are round, but some are pear-shaped.

Basic types of tomatoes:
- **All-purpose tomatoes** are of medium size and suitable for a variety of uses.
- **Early varieties** produce tomatoes in as little as 49 days from being transplanted.
- **Cherry, grape and salad** types produce small, tangy or sweet tomatoes that grow in clusters.
- **Heirloom tomatoes** are older tomato varieties with desirable characteristics.
- **Paste tomatoes** are used for making sauces or ketchup.
- **Giant tomatoes** produce the largest tomatoes.

**Tomato terms:**
- **Determinate varieties:** Plants grow to a certain size and all the fruit will ripen within a several-week period. They take up less garden space than indeterminate types and usually don’t require staking. These tomatoes are ideal for large containers. Sometimes they may be sold as “patio tomatoes.”
- **Indeterminate varieties:** Plants continue to grow all season and produce fruit until frost. They should be caged or staked to keep fruit clean and prevent the fruit from being damaged by resting on the ground. These are the most common kinds of tomatoes to find when buying transplants.
- **Disease resistance:** Many tomato varieties will have V, F, N or T listed after the tomato name on the tag. This indicates resistance to Verticillium, Fusarium, Nematodes or Tobacco mosaic virus.

**Start early:**
Tomatoes are a warm-season crop and develop best when temperatures are between 70 and 75 degrees F. This is why many gardeners put transplants in the garden the last week or two of May. Tomatoes take a long time to grow, and using transplants gives the tomatoes enough time to produce adequate fruit. Buy healthy transplants. It is possible to start tomatoes from seeds indoors about six to
eight weeks before you’ll want to move them outside. It is important to use fluorescent lighting to produce sturdy, compact, green plants. For many gardeners, buying high quality transplants is easier than growing them.

**If you buy transplants:**

- Choose dark green, stocky plants 6 to 10 inches tall with stems the thickness of a pencil.
- Don’t buy tall, spindly plants or those with leaf spots or yellow or curling leaves. They are already experiencing difficulties.
- Avoid plants with flowers or fruit on them. They will not be big producers. Once the plants have begun flowering and fruiting, they do not grow much larger. Picking off flowers or fruit will not change the pattern of growth.

**Transplanting:**

Tomatoes cannot withstand cold temperatures or cold soil. Transplant them after danger of frost has passed.

Set plants 1 inch deeper in the garden than they were in containers. If plants are tall and leggy, set them deeper and on a slant. Plant them in the evening or on a cloudy day to reduce transplant shock.

Water well. A dilute starter fertilizer can be used, if desired. Cover plants at night if there are frost warnings. Remove the covers during the day.

**Basics:**

**Sunlight:** Tomatoes need full sun (eight or more hours a day) and warm soil for good yields.

**Soil:** Plant in well-drained, loose soil.

**Fertilizer:** Get a soil test done and follow the recommendations. Beware of using too much nitrogen — you may grow a large, lush plant without much fruit.

**Water:** Provide water as needed. Prevent blossom end rot by keeping the soil evenly moist. Blossom end rot causes the bottom of a ripe or semi-ripe tomato to be flat, black and leathery. It is often caused by uneven watering in hot weather and affects those much anticipated first fruits.

**Growing:**

Indeterminate tomatoes should be caged or staked to keep fruits off the ground.

Containers used to grow tomatoes must be large enough to allow for adequate root growth. Choose one of the determinate varieties or patio tomatoes that are bred to be compact.

Pick tomatoes when ripe for best flavor. Do not eat tomatoes that have been frosted.

Refrigerating tomatoes causes them to lose much of their flavor.

**Big do-nots:**

- Do not plant within 50 to 70 feet of a black walnut tree. Walnut roots contain a substance called juglone, and when tomato and walnut roots come in contact with each other, the tomato dies.
- Do not plant tomatoes in the same area each year or following other members of the nightshade family: peppers, eggplant and potatoes. Growing related plants in the same spot year after year increases the likelihood of disease and insect problems.

**Fun fact:** Botanically, the tomato is a fruit. It is classified as such because the portion that is eaten contains reproductive structures (seeds). But in 1893, the tomato was declared a vegetable by the U.S. Supreme Court. The reason involved the collection of import duties. So the tomato is either a fruit or a vegetable, depending on whether the definition is botanical or legal.

Find out more about Michigan Fresh at msue.anr.msu.edu/program/info/mi_fresh.