

## Tomatoes

Tomatoes are so popular they deserve their own attention, and they do require special care. They are heat loving plants originally from Mexico and can stop growing when temperatures dip below $55^{\circ} \mathrm{F}$. They should not be put out before our last average frost date of May 5, and frost will kill the plant in the fall if it does not have protection. They are easy to start from seed, but should be started indoors January to March, along with their "cousins" pepper and eggplant, on a heat mat to germinate and then moved under bright shop lights. They belong to the family Solanaceae, also known as the nightshades and are also related to tobacco. Never smoke around these plants or if you are a smoker do not touch them without first washing your hands. When you water tomato plants, water at the base of the plant and not the leaves.

There are two basic types. Indeterminate is the name they give to vines, and determinate is the name they give to bush. These types do not have to do with variety, such as beefsteak or cherry tomatoes, which might be found in either category. Indeterminate tomato plants do better with tall trellis or cord suspended in a greenhouse or tunnel. They can get up to 20 feet long with the right growing conditions. Indeterminate tomatoes need weekly pruning (explained later). Determinate tomatoes are well suited to home gardening and raised beds. They still need the support of a tomato cage or a stake.

The plants should not be transplanted outdoors until after the last average frost but do watch the weather... they are only averages. And they need to be "hardened off" by protecting them from the harshest of temperatures as they adjust to living outdoors; some gardeners just bring the plants back in at night for a couple of weeks.

Our hardiness zone in Oberlin, OH is 6 a , making our last average frost date May 5. They can safely be put in the ground in late May. Tomato plants are "heavy feeders," meaning they prefer soil rich in nutrients. They also prefer well drained soil. We recommend amending your soil with good compost before planting and fertilizing with an organic tomato fertilizer. Tomato fertilizers have more calcium than do all purpose vegetable fertilizers. You can optionally try something like compost tea and crushed eggshells, but you may run the risk of blossom end rot if your mix lacks calcium. So long as tomato plants don't sit in a puddle, you may not need to address drainage, but it can be improved in the following ways. For pots especially, mix sand into the soil. For rows or raised beds, you can plant into mounds of soil so that the plant is on a little hill.

You are best off giving the plant support from the moment you put it into the ground. Tomato vines and stems can be fragile except when new and supple, so you want to train it weekly rather than try to catch up and snapping a few productive branches. If your tomato plants are potted, you should deep water every day. If they are in the ground, you may wish to water two or three times a week, to encourage more rooting, but be careful to give the plant enough water to keep the leaves continually perky, or you will start hurting the health of the plant and its production.

## DETERMINATE TOMATOES

Most of us are familiar with the kind of tomato cage that has three legs that go into the ground and hoops attached to the legs. These are not very good and take up a lot of room to store. There are stronger, folding cages that can be purchased, but they are often pricey. Our preference has become using a very tall tomato stake and tying to the stake with strips of a torn bedsheet or a professional trellis clip that will not cut into the vine as it grows. These stakes can be found cheap at Aldi stores or can be ordered by the box on Amazon. Tying should always be done loosely and gently and checked meticulously every week if it is hand tied. Tomato plants can literally get strangled on these ties, so tie them in bows so they can be loosened. The first blossoms that appear on the tomato plant should be pinched off, to encourage the plant to put out more branches for better production.

## INDETERMINATE TOMATOES

Indeterminate vines need to be pruned and trained on a cord every week from the moment you plant. With vines, you remove "suckers" as they appear. You do not remove anything from the top growth, so as not to inadvertently remove the growth tip from which the vine emerges. A sucker is the growth that begins in the elbow of where a branch joins the main stem. (See image).


## WEEKLY TOMATO PLANT ROUTINE

1. Using clean gloves or hands, one by one check a plant for disease, insects, or other issues.
2. Check all ties to make certain they are loose. Add more ties or trellis clips as needed.
3. For indeterminate varieties, methodically look for and remove suckers from the base of the stem up, but not at the top of the plant.
4. Finish by watering deeply at the base of the plant (avoid watering the leaves).
