

# TOMATO GARDENING

TEXAS A&M  
**AGRILIFE**  
RESEARCH EXTENSION





# LET'S KETCHUP ON TOMATOES

## TOMATO PLANTS

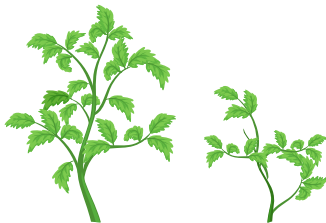
Tomato plants are an easy-care addition to any landscape, container garden or vegetable garden. Tomatoes grace the dishes of cultures across the globe, serving as massively popular inclusions in gardens everywhere. In Texas, typical garden and landscape challenges include heat, weeds, pests and lack of water during drought. You can overcome all these with some basic knowledge for growing tomatoes.

## PLANNING



### Location

Whether in the ground or in a container, select a location with a minimum of 5 hours of sunlight for tomatoes to thrive.



### Size

Tomato plants come in a range of sizes and growth patterns; select one that will not outgrow your allotted space. This will facilitate air circulation and help to prevent diseases and insects. (See **Determinate vs Indeterminate** for more info)



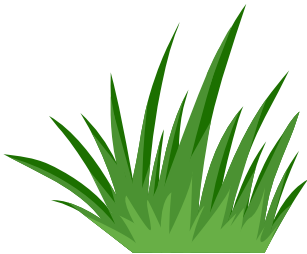
### Water

Tomato plants require even, constant moisture. They do not tolerate drying out or long periods of saturation. A soil moisture meter will equip you to maintain a healthy level of moisture. Consider harvesting rain water for all your plants. Tomato plants thrive with rainwater due to its low pH level and lower concentrations of other elements found in tap water. Mulching helps infiltrate more water from both rainfall events and supplemental irrigation. We recommend 2" - 4" of pine needles, straw, or leaf mulch which also works to hold moisture into the soil consistently for best production.



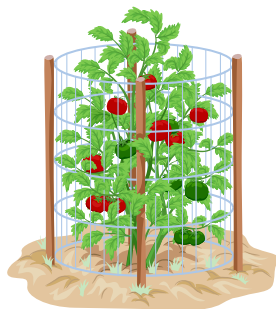
### Soil

Tomato plants thrive in well drained, organic-rich soils with lower pH levels. Before planting, amend the soil with compost, which is rich in organic matter. In poor soils, try incorporating up to 3" of compost into the top 6" of soil. Consider topdressing with a 1/2 layer each year. Compost also improves soil moisture retention while aiding in drainage.



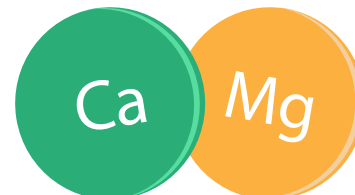
### Weeds

Gently removing all weeds from around your tomato plants will ensure undisturbed root systems and eliminate competition for water, sunlight and available nutrients and allow for ample air flow. This is especially important for young tomato plants.



### Support

Stake or cage tomato plants to ensure that the fruit does not rest on the soil. These supports also helps the plant carry the weight of their fruit. Larger store-bought cages may work for smaller bush-type plants while custom re-enforced cages are better for vining tomato cultivars.



### Nutrients

Provide supplemental nutrition to your tomato plants to keep them healthy and producing tastier fruit. Tomatoes thrive on calcium and magnesium often found in large amounts in our North Texas soils, but they may demand less nitrogen than other landscape plants. Many fertilizers are made specifically for tomatoes, including organic options.

Consider analyzing your soil with a soil test every other year to maintain optimum nutrient levels and get recommendations based on your specific garden. Follow the fertilizer package label for application rates and frequency. Some suggest monthly fertilizing to maintain a nutrient-rich balance.

## SELECTION

Choosing a tomato variety and the proper number of plants for your space will depend on your needs. Three to five plants will feed a family of five. Flavors vary between varieties; choose the ones that suit your taste. Also consider how you will use your tomatoes. For canning or preserving, a determinate tomato is better suited. For fresh tomatoes throughout the growing season, an indeterminate tomato is best.

**D**-means the tomato is determinate. Determinate tomato plants tend to be more compact in size, and their fruit tend to ripen soon and all at once, making them best for canning and preserving.

**I**-means the tomato is indeterminate. These tend to grow taller throughout the growing season and will produce fruit until the first frost of winter.

For more help on selecting the right tomato visit:  
[https://aggie-horticulture.tamu.edu/publications/veg\\_variety/](https://aggie-horticulture.tamu.edu/publications/veg_variety/)



## HEIRLOOM & HYBRIDS

Cultivars are open-pollinated and have been bred and passed down from generation to generation, for superior flavors, unique colors, or adaptability to regional weather patterns or soil types. Many heirlooms are valued for their size and exceptional taste, but may not produce as high of yields in most years.

Hybrids have been cross-pollinated to share desirable traits of each parent, which include flavor, productivity and pest/disease resistance. Many (but not all) adapted hybrids require less care and generate higher yields, but might sacrifice a little flavor when compared to their heirloom counterparts.

Both heirloom and hybrid cultivars should be included in your garden and can be purchased by seed or transplants in organic and "conventional" production methods, depending on your preference.

These terms should NOT be confused with the term GMO or transgenic. Those tomatoes are not available to home gardeners in ANY form.

## TOMATO ALPHABET

When selecting your hybrid tomatoes, you may notice acronyms like the ones below, which denote resistance to certain diseases.

<b>ASC</b>	Resistant to Alternaria Stem Canker
<b>BSp</b>	Resistant to Bacterial Speck
<b>F</b>	Resistant to Fusarium Wilt
<b>F1</b>	Resistant to Fusarium Wilt Race 1
<b>F2</b>	Resistant to Fusarium Wilt Race 2
<b>N</b>	Resistant to Nematodes
<b>V</b>	Resistant to Verticillium Wilt
<b>V1</b>	Resistant to Verticillium Wilt Race 1
<b>V2</b>	Resistant to Verticillium Wilt Race 2
<b>TMV</b>	Resistant to Tomato Mosaic Virus
<b>St</b>	Resistant to Stemphylium (gray leaf spot)

Heat-set-hybrids or heat tolerant heirloom cultivars are also available for those that have gotten a late start planting tomatoes in spring. While most tomatoes will begin losing blossoms as temperatures exceed 90 degrees F, these types will produce slightly better during hotter weather patterns.

## STARTING FROM SEEDS

For optimum yields, start seeds indoors in late winter or 6-8 weeks before the last expected frost of the year. This will ensure readiness for transplanting into large containers or in the ground from late March to early April, coinciding with the last anticipated frost of the season.

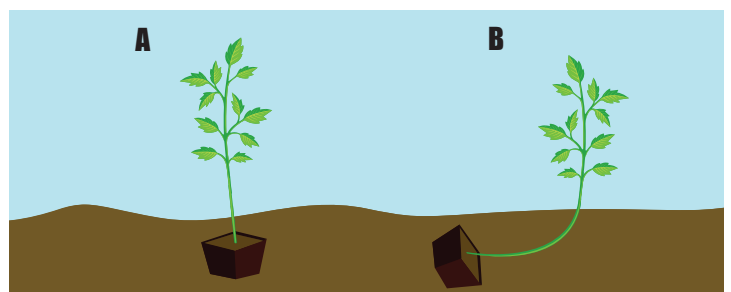
## TIMING IS KEY

Buying transplants (or producing your own) will give you a head start while increasing the chances of higher yields in the extreme and variable Texas climate. If tomatoes are planted too late in the spring they will suffer as temperatures exceed 90 degrees F in late spring to early summer. Shorter season determinate tomatoes (less than 75 days to harvest) will have a better chance of setting fruit before summer temperatures arrive. Indeterminate cultivars might struggle during the heat of the summer, but also have the potential to produce when the Texas heat subsides.

Fall Tomatoes - Planted in July or August, they will begin setting fruit as temperatures begin to cool in fall and depending on the cultivar can yield tomatoes until our first freeze. In some years, fall tomato production can exceed that of your spring garden.

## PLANTING TRANSPLANTS

For best results gently remove the lower 1/3 of leaves from the tomato transplant, and plant with the lower 1/3 below the soil. This will encourage the lower stem to grow roots, making your plant a stronger and more fruitful plant. Always plant transplants with their main trunk perpendicular to the soil level, even if the plant is growing at an angle (see image below). This will ensure a straight plant.



## HARVESTING

The most flavorful tomatoes can be harvested when allowed to ripen on the vine. To prevent harvest loss to birds, rodents, and insects, try harvesting tomatoes as soon as they change from green to red. Pick the fruit by gently twisting it until free from the stem. Take fresh tomatoes indoors to continue ripening in a bright window, breathable container or paper sack. Tomatoes are at their optimum flavor when they begin to soften and are at their peak color. Do not refrigerate, as tomatoes lose flavor when refrigerated.



## PROBLEM SOLVING

Tomatoes experience a fair share of threat from pests and disease, most often attributed to insufficient sunlight, poor soil moisture and poor air circulation.

Always garner an accurate identity of a pest or disease before attempting any treatment. All pesticides, either organic or conventional should be applied per label instructions for best results. For helpful tips on diagnosing tomato problems, visit: <https://aggie-horticulture.tamu.edu/vegetable/problem-solvers/tomato-problem-solver/>

Remember, “The best fertilizer is the gardeners shadow”. You must be present to positively identify problems, make the appropriate interventions, and experience your most successful garden.

For more information on other edible plants, and for recommended planting dates visit: <https://aggie-horticulture.tamu.edu/vegetable/>