



Growing a Tomato Plant In a Container

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“Recipe” for Growing a Tomato:

- A container with drainage, at least as big as a 5-gallon bucket
- 1 bag of soilless mix “potting mix” - 25 qts (or compost and other materials)
- Horticultural lime—1 lb
- Fertilizer—1/4 cup “slow release”
- 1 tomato plant

CONTAINER: Any type of container will do but it must be large enough for the plant’s roots when it is full grown, and it must have drainage holes in the bottom. For a tomato to do well the container should be bigger than a 5 gallon bucket for a plant that keeps growing throughout the season (called an “indeterminate” variety). Some plants are smaller and only grow to a certain size and then all the fruit ripens together in a fairly short period of time (called a “determinate” variety). These smaller varieties can be grown in a 5 gallon bucket. The packet of seeds or label in the tomato plant will tell you this information.

If you have access to larger containers, you can put drainage holes a few inches off the bottom on the sides, instead of the bottom. This creates a water reservoir that the tomato roots can utilize. You can also purchase or make containers with a separate water reservoir.

SOIL: It is best to use “soilless mix” available in bags from stores, garden centers and feed mills. This mix is much lighter than soil from the garden, allowing you to move the container around if needed. It is also disease free, which gives you a much better start with your plants. Add garden lime to the mix (approximately 1 cup to a 5 gallon container and adjust from there according to volume) when mixing, to make sure you have enough calcium available for your plants.

There are other options that can be used for the plant growing media. If you make your own compost, or have access to high-quality compost, you can use that as a major part of your mix. If the compost allows sufficient drainage, it can actually be used as the only material. True soil can certainly be a part of your mixes, but realize that weight will become the limiting factor. Soil is much heavier than soil-less mixes, so only use it where you do not plan on moving the containers at all. Soil also drains and wets more slowly, so you will likely need to water these containers more slowly and at different intervals.

WATERING: After the first watering there should be 1” of space at the top of the container. Each time you water, you should add enough water so that it begins to drain out of the bottom of the container. Then wait until, when you push your finger into the soil, it does not feel moist before you water again. In summer this may be twice a day, particularly with smaller containers. Deeper containers that allow for larger root volumes can help you with water management, but it doesn’t change the need to check them on a daily basis.

FERTILIZER: Soilless mix may not have enough nutrients added to give adequate food to the plant for the whole season. Check the label. If more is needed, you can either use a soluble fertilizer (such as Miracle Grow) that you use when watering, or use a “time release” form, such as Osmocote or other brands. The label will tell you how much to add. Time release fertilizer comes in pellets and breaks down gradually, releasing food to the plant’s roots as needed. Mix this into your soil before you plant. If you have added compost as part of your mix, your plant will get most of the nutrients from the compost. Again, container size will be a determinant here, with smaller containers needing additional fertilizer, but larger containers with more than 25% compost likely not needing any additions.

LIGHT: Tomatoes need full sun for good fruit production and optimum plant health. Full sun is considered to be direct sunlight (not partial shade) for more than 6-8 hours daily.

CULTIVAR SELECTION: As mentioned in the containers discussion, there are many different types of tomatoes that you can grow. The most important difference is whether the tomato is a determinate or indeterminate plant. Indeterminate cultivars need to be grown in larger containers and may also need some type of support to keep the growth somewhat upright. Determinate cultivars are smaller plants making them fit better in containers but they also have a shorter harvest season, which may either be a good or negative aspect for you, depending on your interests.

There are now many cultivars available that have been selected specifically for traits that make them work better in containers. Some of these are very small plants, some of them fruit very quickly, and others are simply smaller versions of better-known cultivars. Do a little homework prior to buying your plants so that you are reasonably confident that the cultivar is going to be the right type for your situation.

PROBLEMS YOUR CONTAINERIZED TOMATOES MAY ENCOUNTER:

1. Blossom End Rot. This disorder is caused by either a lack of calcium in the soil media (not enough lime or you didn't add any) or inconsistent watering, which is a very, very common occurrence with containerized tomatoes. If the plant dries out too much it won't be able to move enough calcium through the plant and out to the ends of the fruits. This causes the ends of the fruits to start dying back, creating a brown then black portion at the end of the fruit. Adding the garden lime will help somewhat with this problem, but if you cannot water the plant daily, or sometimes twice a day, you need to use a container with a water reservoir. Cultivar selection also plays a role in managing this disorder, as roma-type tomatoes are much more susceptible to blossom end rot and smaller-fruited, round tomatoes are less susceptible. Fruits with this disorder may still ripen normally and be edible, as long as the skin does not crack, which will allow secondary fungi in and turn the fruit to mush.



2. Leaf Diseases. A pair of leaf spotting fungi called Septoria leaf spot and Early Blight are also very common problems on any type of tomatoes being grown. These diseases overwinter on diseased plant material from tomato, pepper, potato, eggplant, or nightshade family weeds. The fungal spores get splashed up onto tomato leaves by overhead irrigation or raindrops, with the first disease symptoms usually showing up on the lowest leaves and then progressing up the plant from that point. You should expect to have to deal with these diseases, so be ready for them. Use disease-free material to start, by removing all leaf and plant material from the containers if you are re-using the soil media. If you had severe disease problems in last year's containers, strongly consider starting over with new media.

If you see the disease getting started, clip off affected lower leaves to try to stop it from spreading upward. You can also apply fungicides to prevent new infections or further spread. Active fungicide ingredients that work well against these diseases are chlorothalonil, maneb, and mancozeb. If you apply a fungicide product, make sure to read and follow the label, apply them thoroughly, and consider second or third applications at 7-10 day intervals if the weather is warm, humid, and/or wet.

3. Other Problems. Your plants may also get grazed on by deer, chipmunks may eat your ripe tomatoes before you get them, or there may be some slugs or earwigs that get up into your container. If it is going to get truly hot, consider the soil temperature of your containers. In full sun and off the ground, the soil media may actually get too hot, causing significant problems, so consider placing them on the ground or in a spot where they may have some shade during the hottest parts of the day.

Other concerns? Call Scott at 715-732-7510 or e-mail scott.reuss@ces.uwex.edu or check out more horticulture information at our website at <http://marinette.uwex.edu>