



Peppers – Hot or Not?

However you like them, peppers are a wonderful addition to both your garden and your kitchen. They are a decorative addition to any garden bed with their abundant shiny leaves, dainty flowers and, of course, colorful fruit. Hundreds of varieties are available, accommodating differing tastes and regional cooking style and as much a treat to eat as they are a snap to grow! Even though they are tropical, heat-loving plants, it's not hard to grow a bumper crop of tasty peppers with a little planning.

A Few Words About That Heat

Peppers are rated as sweet, mild, hot, and very hot, but a more accurate rating can be found by looking at their rating on a scale of Scoville Heat Units. Sweet bell peppers are SHU 0, jalapeños are SHU 2,500-5,000, while habañeros come in at SHU 100,000-500,000. Taste preference and heat-endurance varies from person to person, so the best approach is to grow what you know, and then add a few new varieties each year to expand your experience!

Start With the Seeds

From February 4th to 18th is the optimum time for starting peppers in St. Louis (8 to 10 weeks before our average last frost date, April 15th). Fill small containers or peat pots with seed-starting mix and moisten well. Seeds will benefit if you soak them in water overnight before sowing. Sow only 2-3 seeds in each container, about ¼” deep, covering with a thin layer of vermiculite or seed-starting mix. Pepper seeds don't need light to germinate but they need to be kept warm (about 80° - 90°) or their germination will be very slow. Bottom heat is best – use a heat mat or place on a radiator or near a heat vent. Cover your containers/peat pots loosely with plastic wrap to contain the humidity and keep the soil mix lightly moist to ensure germination. Under optimal conditions you'll have seedlings in about 8 to 10 days. Remove the plastic wrap and give your plants good strong light. Provide a space with a southern exposure or better yet, set a grow light at about 2” directly above the seedlings for 12 to 16 hours of light each day. A timer can be helpful. Now your plants need it cooler (70° during the day and 60° at night) a heated basement is usually fine for this. Raise the lights as the plants grow and don't allow the soil to dry out. Use warm water to gently water the seedlings. When the plants have two sets of true leaves, thin to one plant per pot and begin to fertilize – we recommend *Espoma Tomato!* 1-3-1 every 10-14 days. It may be necessary to “pot up” your seedlings to give them space to grow. Gently transfer them to the larger pot and firm the soil around the stem to keep them upright. Keep the lights 2” from the top of the plants.

Prepare Your Pepper Bed

Optimally you will have chosen a spot for your tomatoes and prepped it in the fall, but if it is not too wet you could still prepare your site in the spring before it is time to set out your transplants. Peppers must have full-sun which is a minimum of 6-8 hours total. Choose a well-drained site with one square foot per plant. Consider constructing raised beds which will improve drainage and allow the soil to warm up more quickly in spring. Thoroughly work the top 8-10 inches of soil, adding *Dr. Earth Home Grown Vegetable Garden Compost* to loosen and enrich the soil and the soil conditioner *Turface* to improve water and nutrient uptake.

Time to Transplant

Around May 6-13, which is about 3 weeks after our average last frost date, it is time to set out your transplants. More important than the calendar date, when transplanting peppers it is best to WAIT until temperatures are consistently WARM. Soil must be 65° or growth will be affected. If planted out too soon, the plants will “just sit there and do nothing” until it gets warmer. More importantly, this cold exposure may affect growth for the whole season. If it gets cold again *after* transplanting, cover your pepper plants with row covers. Before you transplant them though, your plants need time outside to harden off. Set them out on the back porch or patio for a few hours each day for about a week, bringing them in at night and gradually extending the time that they are out in the wind and sun. The ideal transplant will have buds but no flowers - pinch off any small fruits that form to improve fruit size and quantity later. Dig a nice deep hole and sprinkle in scoop of compost. It is helpful, though not necessary, to stake peppers, especially those which will grow over two feet tall. Put the stake in *before* you transplant. Gently transfer a plant into each hole. Pack the soil firmly around the young plant to help keep it upright and to make sure there are no air pockets. Be careful to keep the roots from drying out during the transplanting process – a cloudy or drizzly day or in the late afternoon is ideal. Water them in with compost tea, liquid seaweed, or *Nature's Source 10-4-3*. Monitor them for the first few weeks so their roots do not dry out. If the weather is very sunny, protect them for the first four days with temporary paper tents or row covers.

Maintaining Your Peppers

Continue to water slowly and deeply to help establish a strong root system. Peppers are drought tolerant, but keep your pepper bed evenly moist for better fruit production, cutting back on watering somewhat as fruit matures. Water at the base of the plant or use soaker hoses rather than overhead sprinklers so foliage is kept dry and disease free. To help retain moisture and reduce weeds, maintain 2”-3” of compost or grass clippings as a mulch around each plant as soon as they have been staked. To increase fruiting, side-dress with *Espoma Tomato-tone 3-4-6* when the plants begin to flower and then again three weeks later. Beyond that, the compost at transplant time will be enough for your peppers.

Problem-Solving

For the most part, peppers sail through the season without any problems. However, since they are susceptible to aphids, hornworms, blossom-end rot and tomato/potato viruses, it is still important to choose disease-resistant varieties and use proper sanitation in the garden. Good cultural and sanitation practices include soil preparation, crop rotation, proper planting and spacing, and attention to watering and fertilizing. Scout often for problems as early detection and removal of diseased leaves and insects is the best way to ensure healthy plants. If you have previously experienced disease problems with either tomatoes or peppers, rotate with other crops or a green manure crop over the course of three or four seasons. Sun-scald can be a problem for peppers, so monitor damage to leaf development, as foliage will protect the fruit. Consider siting your peppers where there is afternoon shade next year if you notice indicators such as depressed dark spots on the shoulders of the fruit.

Harvest Time

Peppers can be picked while they are still green – but why? When they have turned their final color and are fully mature they are sweeter, with more intense flavor and higher Vitamin A and C. On the other hand, the secret to continual harvest is to pick peppers *just before* they turn their final color and let them finish ripening indoors – the plant will set more flowers and you’ll harvest more fruit! Harvest early and often: the more you pick, the more your plant will produce! Be careful not to pull the fruit off the plant, using scissors or two hands to gently pluck instead. Peppers will stop setting fruit if temperatures are above 85° - 90° or if they dip below 60°. Water well and wait. Harvest continues until temperatures are consistently below 55°.