Peppers are best started from transplants after the soil has warmed in the spring. The plants cannot tolerate frost, and they do not grow well in cold, wet soil. Pepper seed can be slow to germinate and temperatures need to be 76°F or warmer for germination in 7 to 10 days. Some of the cultivars may take 20 to 100 days to germinate. When night temperatures are 50°F or lower, the plants may be injured. The plants grow slowly, leaves may turn yellow and the flowers will drop off. Transplants should be planted in the field when they are small (4-5”). Larger plants will tend to set fruit too early and result in smaller fruit throughout the season. Plant peppers a week to 10 days after tomatoes are transplanted.

Set transplants 18-24 inches apart in the row. A dozen plants, including one or two salad and hot types, will produce enough peppers for most families.
Care

Peppers thrive in well-drained, fertile soil that is well supplied with moisture. The soil should be limed to raise soil pH above 6.0. Apply 8 ounces of a starter fertilizer solution (1 tablespoon of soluble fertilizer per gallon) to each plant when transplanting. Hoe or cultivate shallowly to keep down weeds without damaging roots. Mulch is recommended, especially for gardeners who wish to maintain their plants for full-season harvest. Black plastic or organic materials are suitable for mulching.

Water the plants thoroughly every four to seven days during dry periods. Plants confined in containers need daily watering. Side-dress with nitrogen fertilizer (ammonia nitrate) at the rate of 1/2 pound per 100 feet of row (equivalent to 1/2 tablespoon per plant) after the first peppers have grown to the size of golf balls. Apply supplemental fertilizer (side-dressing) cautiously, only after a good crop of peppers is set, at two-week intervals. Do not get fertilizer on the leaves. Gardeners do more harm than good by applying too much fertilizer. Irrigate during dry periods; a uniform moisture supply is essential throughout the harvest season.

Many gardeners train their pepper plants to stakes or trellises with great success. Using one stake for every four plants, the gardener can support the plants with one string tied about 15 to 18 inches above the ground. This prevents the plant from tipping over with wind and rain. All varieties are not equally suitable for staking.

Insect and Disease Control

Peppers have the same problems as tomatoes do in the garden and should be treated as such.

Harvesting

Fruits may be harvested at any size. The bell varieties, however, are usually picked when they are full-grown and mature (3-4 inches long, firm and green). When the fruits are mature, they will break easily from the plant. Some gardeners prefer to cut off the fruits to prevent damage to the plant. The fruit may be left on the plant to ripen fully to a red, yellow or purple color. Hot peppers, except jalapeno, are usually harvested at the red ripe stage. Harvest sweet peppers when they reach full size, while still in the green or yellow state. When allowed to mature on the plant, most varieties turn red, are sweeter and increase in vitamins A and C content. Entire plants may be pulled in the fall before frost and hung in an outbuilding or basement to dry.

Common Problems

People who use tobacco should wash their hands with soap and water before handling pepper plants to prevent the spread of tobacco mosaic virus disease. Grow resistant varieties, if possible. Watch for accumulations of aphids on the underside of the leaves. When a large aphid population is present, honeydew appears on the lower leaves and fruit. If this situation occurs, apply a suggested insecticide.

Frequently Asked Questions

Q. If I remove the first few blooms on a pepper plant, will my overall production be increased?
A. The plant will be stunted if it sets the first bloom that flowers. This is likely when the plant is growing under marginal conditions, which include low fertility or moisture. By removing the first bloom, the plant will grow larger before setting fruit, which often results in higher total yields.

Q. Can I save seed from this year’s pepper crop for planting in my next garden?
A. Yes. Peppers are self-pollinated and will breed true if seed is saved from this year’s garden for planting in next year’s garden. Occasional cross-pollination will occur, but this is usually not a problem. Do not save seed from hybrid pepper plants as these will not breed true and will result in plants exhibiting characteristics different than the desired hybrid.

Q. The very youngest leaves of my pepper plant are twisted and misshaped, and the flowers are not developing into fruit. What causes this?
A. The plant may be infested with aphids, a small insect that feeds by sucking the cell contents out of young succulent tissue. Use an insecticide to control them.
Garden Preparation and Plant Setting

A soil test is the best way to determine the fertility needs of the garden. Plant sweet potatoes in an area of the garden that is well-drained and preferably a sandy loam that is well-aerated. One of the best ways to grow sweet potatoes is in a raised bed. Prepare a bed that is 12 inches tall and 15 to 18 inches wide at the base. This will settle to a bed that is about 8 inches tall. On very sandy soils, the height of the beds will be lower.

For each 20 feet of row, place 1/2 pound of 10-20-10 fertilizer in the bed. This may be followed with another application in four weeks. Using a trowel or hoe, make a hole deep enough to bury all but the upper leaves of the slip. Use a transplant starter solution to water the plants in just as is recommended for other transplants. After transplanting, apply a starter solution high in phosphorus at a rate of one cup per plant. One tablespoon of soluble fertilizer such as 15-30-15 in a gallon of water can be used in making starter solution.

Plants can be spaced as close as 6 inches apart but 12-inch spacing usually works best for the production of high-quality roots. Only use shallow cultivation near the plants to avoid damage to the shallow feeder roots. By maintaining clean middles of the rows, there is less competition with grass and other weeds for water and nutrients.

Care and Irrigation

Few pests and diseases attack sweet potatoes. In fact, it is one of the easiest vegetable crops to grow organically. The key is to start with certified disease-free seed roots or slips.

Irrigation is important in the production of quality roots. It is important to keep the soil moisture above the wilting point because soil moisture determines both the number and the size grade of the sweet potato roots. Adequate moisture is necessary during the first half of the season for the initiation of storage roots and during second half of the season to control the sizing of the roots.

Harvesting

Harvest sweet potatoes any time after the hills have produced adequately sized roots. Dig potatoes when the soil is dry. Be careful not to skin or bruise the tubers. Since the roots develop 4-6 inches beneath the soil surface, a spade fork is a useful tool for digging. The first sweet potatoes dug in the mid to late summer are called green or “uncured.” When the potatoes reach 2 inches or more in diameter, dig a few hills to use right away.

Later potatoes are usually dug in September or October just before a killing frost. In any case, you need to get potatoes dug before the soil temperature drops below 55°F or the storage ability will be damaged. The sweet potato roots are easily bruised by rough handling.

Curing

The importance of curing sweet potatoes is to have favorable conditions for the healing of cuts, bruises and other wounds. The roots produce a corky layer of tissue over the wounds that prevents the loss of moisture and prevents infection. Curing should take place immediately after harvest. Dig your potatoes and allow the soil on the surface of the potatoes to dry. Shake off any excess soil but do not wash the roots. Roots can be cured by holding them at 90% relative humidity and 85°F for seven to ten days. Note that even though the humidity is high, there should not be any condensation or free water on the surface of the potatoes or they may rot.

Storage

As soon as the curing is completed, the temperature of the storage can be lowered to 60°F but no lower than 55°F or injury will occur. Keep the humidity high without condensation to prevent moisture loss. Provide adequate ventilation around the roots by storing them in slatted wooden crates or baskets that are not over-filled. You should be able to store the roots for six months or more.
The best way to start your garden planning is with a soil test. Many gardeners make the mistake of over-fertilizing. A soil test will give you the recommendations you need to fertilize and lime your garden. Soil testing is done free through our lab in Marianna, Arkansas. You need to take a FULL ziplock sandwich bag of DRY soil, taken from several spots in your garden, into your local Extension office. It takes about three weeks to get your results, so take your soil samples in early.

If you have any questions or want further information on horticulture, please contact the Sevier County Extension office at (870) 584-3013 or come by Cossatot Community College U of A and visit us in the Agriculture Building.

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