



SOUTH CAROLINA FAMILY AND COMMUNITY LEADERS

Affiliated with National Volunteer Outreach Network, Country Women's Council, U.S.A., Associated Country Women of the World and in partnership with Clemson University Cooperative Extension Service

SCFCL website: <http://www.scfcl.com>

Leader Training Guide

Growing Tomatoes in Containers

Objectives:

Students will be able to successfully grow tomatoes in containers in a limited amount of space. This will enable them to provide healthy and fresh tomatoes for their families, and also help them save money on their grocery budget.

Lesson Overview/Introduction:

Choosing the best varieties of tomatoes for container growing will be discussed, along with container choices, sizes and the proper soil mix. Students will learn how to correctly plant and successfully grow a tomato crop. They will also learn the proper light, water and fertilizer requirements needed for growing tomatoes in containers.

Lesson:

Growing tomatoes in containers is useful when you don't have a yard or space for a garden. Another advantage in growing tomatoes in containers is that the soil type, content, drainage, and temperature can be easily controlled.

Variety Selection: In choosing a tomato variety, it's necessary to pick a tomato that has a determinate growth habit. This means that the tomato is bred to grow to a predetermined height, which makes it better suited for container growing. Also, choosing a tomato variety that has a high disease resistance will ensure a better chance of success in producing a good crop yield. Some suggested large fruiting hybrid varieties are 'Bush Early Girl', 'Better Boy Bush', 'Celebrity' and 'Marglobe'. Good cherry hybrid varieties are 'Jubilee', 'Sweetheart of the Patio', 'Patio F' and 'Mighty Sweet'.

Planting Dates: The state of South Carolina is divided up into three gardening zones. Depending on the area, this will determine the best time to plant the tomatoes.

Planting Dates		
Area	Spring	Fall
Piedmont	May 1-May 30	July 10-20
Central	April 5-25	July 10-20
Coastal	March 25-Apr. 10	July 25-30

Piedmont: Abbeville, Anderson, Cherokee, Chester, Edgefield, Fairfield, Greenville, Greenwood, Lancaster, Laurens, McCormick, Newberry, Oconee, Pickens, Saluda,

Spartanburg, Union and York counties.

Central: Aiken, Allendale, Bamberg, Barnwell, Calhoun, Chesterfield, Clarendon, Darlington, Dillon, Florence, Kershaw, Lee, Lexington, Marion, Marlboro, Orangeburg, Richland and Sumter counties.

Coastal: Beaufort, Berkeley, Charleston, Colleton, Dorchester, Georgetown, Hampton, Horry, Jasper and Williamsburg counties.

Planting: Temperature and Sunlight Requirements: Tomatoes are warm-season plants that grow best at temperatures of 70 to 80°F during the day and 60 to 70°F at night. They will do best planted where they can get eight to ten hours of sun a day.

Containers: There are many possible containers for gardening. Clay, wood, plastic and metal are some of the suitable materials. There should be holes in the bottom for drainage, and be at least 8-12 inches deep for adequate rooting. Consider using barrels, flower pots, window boxes and even pieces of concrete blocks. A plastic pot will not dry out as rapidly as a clay pot and will require less watering. If reusing a container, be sure that the container has never held products that would be toxic to plants or people.

Potting Mix: A fairly lightweight potting mix is needed for container vegetable gardening. Soil straight from the garden usually cannot be used in a container because it may be too heavy, unless your garden has sandy loam or sandy soil; and also may harbor diseases. Clay soil consists of extremely small (microscopic) particles. In a container, the undesirable qualities of clay are worse. It holds too much moisture when wet, resulting in too little air for the roots, and it pulls away from the sides of the pot when dry. Container medium needs to be porous because roots require both air and water. Packaged potting soil available at local garden centers is relatively lightweight and may make a good container medium. Also, soilless mixes are sterile and contain few nutrients, so even though major fertilizers are added, no trace elements are available for good plant growth. Add potting soil if you wish to use a peat-based mix. For a large container garden the expense of prepackaged or soilless mixes may be quite high. Try mixing your own with one part peat moss, one part potting soil and one part clean coarse builder's sand or perlite and a slow-release complete fertilizer. Lime may also be needed to bring the pH to around 6.5. In any case, a soil test is helpful in determining nutrient and pH needs, just as in a large garden.

Staking: Depending on the variety and growth habit of the tomato, it may need to be staked for support. Tomato cages are the easiest way to stake the plant. They should be placed over the tomato at planting. Many tomato cages are now painted in bright colors, adding interest to the area.

Watering: Pay particular attention to watering container plants. Because the volume of soil is relatively small, containers can dry out very quickly, especially on a concrete patio in full sun. Daily or even twice-daily watering may be necessary. Apply water until it runs out the drainage holes. On an upstairs balcony this may create problems with the neighbor downstairs, so make provisions for water drainage. Large trays filled with

coarse marble chips work nicely. However, the soil should never be soggy or have water standing on top of it. When the weather is cool, container plants may be subject to root rots if they remain too wet. Clay pots and other porous containers allow additional evaporation from the sides of the pots and watering must be done more often. Small pots also tend to dry out more quickly than larger ones. If the soil appears to be getting excessively dry (plants wilting every day is one sign), group the containers together so that the foliage creates a canopy to help shade the soil and keep it cool. On a hot patio, consider putting containers on pallets or other structures that will allow air movement beneath the pots and prevent direct contact with the cement. Check containers at least once a day and twice on hot, dry or windy days. Feel the soil to determine whether or not it is damp. Mulching and windbreaks can help reduce water requirements for containers.

Fertilizing: If a soil mix with fertilizer incorporated is used, then the plants will have enough nutrients for eight to ten weeks. If the plants are grown longer than this, use a water-soluble fertilizer formulated for vegetables at the recommended rate, every two to three weeks. Do not add more than the recommended rate of fertilizer, as this can cause fertilizer burn and kill the plants. If tomatoes are fertilized with too high a rate of nitrogen, the plants will be healthy and green, but with little fruit.

General Care: There are a number of insects and diseases that are common to tomatoes. The leaves and fruit should be periodically inspected for the presence of insects as well as the occurrence of diseases. Place the container in full sun and protect from the wind. Keep mature fruits harvested to encourage more fruit formation.

Lesson Summary:

Tomatoes are an easy crop to grow in containers. Choose tomato varieties that have determinate growth habits as they will only grow to a pre-determinate height. Planting at the correct time, choosing an appropriate container, and following the cultural care instructions will ensure a successful crop.

Suggested Activities:

Look at the landscape and determine if there is a suitable location for container growing tomatoes

Select a tomato variety based on size and taste preference.

Choose a desired container and tomato cage.

Plant the container, follow the cultural care instructions and harvest the tomatoes.

Prepare a meal with the tomato harvest, and enjoy.

Suggested materials:

HGIC 1251 Container Vegetable Gardening

<http://www.clemson.edu/extension/hgic/plants/pdf/hgic1251.pdf>

HGIC 1323 Tomato

<http://www.clemson.edu/extension/hgic/plants/pdf/hgic1323.pdf>

HGIC 1652 Soil Testing

<http://www.clemson.edu/extension/hgic/plants/other/soils/hgic1652.html>

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Sources/References:

HGIC 1251 Container Vegetable Gardening

<http://www.clemson.edu/extension/hgic/plants/pdf/hgic1251.pdf>

HGIC 1323 Tomato

<http://www.clemson.edu/extension/hgic/plants/pdf/hgic1323.pdf>

Burpee Seed Company, Determinate Tomato Varieties

<http://www.burpee.com>