

Planning a Garden

Home garden vegetables can be grown abundantly in most areas of South Carolina with proper care. Many who have grown vegetables for the excellent fresh flavor or as a hobby now find home gardening profitable with today's high food costs.

The number of home vegetable gardeners is steadily increasing in the state. Success or failure of home vegetable production can depend on many things, but some major reasons for failure are negligence, not following the proper instructions and not keeping up with current vegetable developments.

Planning the Vegetable Garden

When planning a garden, it is important to ask a few basic questions:

- Who will be doing the work? Will the garden be a group project with family members or friends who will work willingly through the season to a fall harvest, or will you be handling the hoe alone in between camping and swimming? Remember that a small weed-free garden will produce more than a large, weedy mess.
- What do you and your family like to eat? Although the pictures in the garden catalog look delicious, there is no value in taking up gardening space with vegetables that no one eats. Make a list of your family's favorite vegetables, ranked in order of preference. This will be a useful guide in deciding how much of each vegetable to plant. Successive plantings of certain crops, such as beans, can be harvested over a longer period of time and increase your yield. As you plan, list recommended varieties and planting dates.
- How do you plan to use the produce from your garden? If you plan to can, freeze, dry

or store part of the produce, this will be a factor not only in planning the size of the garden but also in selecting varieties. Some varieties have much better keeping quality than others. Care should be used in choosing the seeds, making sure the varieties you select are adapted to your area and intended use.

- Finally, how much space is available? How much area can be converted into usable garden space, and how much garden do you need? Do not plant more garden than you need.

Additional Planning Hints

- Plan the garden on paper first. Draw a map showing arrangement and spacing of crops. If you wish to keep the garden growing all season, you may need a spring, summer and fall garden plan.
- Plan the garden and order seeds by January or February. Some plants may be started indoors as early as January.
- In your plan, place tall and trellised crops on the north side of the garden so they will not shade the shorter vegetables.
- Group plants by length of growing period. Plant spring crops together so that later crops can be planted in these areas after the early crops mature. Consider length of harvest as well as time to maturity. Place perennial crops to the side of the garden where they will not be disturbed by annual tillage. Finally, practice crop rotation. Try not to plant the same vegetable or a related vegetable in the same location year after year.

Site Selection

The garden should be as small as possible to cut down on unnecessary work. In South Carolina, gardens should receive at least six hours of direct sun each day. Leafy vegetables can tolerate partial shade; vegetables that produce fruit, such as peppers and tomatoes, must be grown in full sun.

Avoid planting your garden close to or beneath trees and shrubs because shade and the competition for nutrients and water may reduce vegetable growth. If a garden must be planted near trees, reserve the sunniest spot for vegetables grown for their fruit or seeds.

Plants grown for their leaves or roots can be grown in partial shade. Because water is required by vegetables, especially during droughty periods, a site within close proximity to the house should be considered; this site is usually located close to an abundant water supply. Also, people are more likely to work in the garden and check for pests when the garden is close to the house.

When soil or landscape space is unavailable, vegetables can be grown in containers. As long as light, water and soil volume requirements are met, container-grown vegetables can be placed anywhere: sidewalks, patios, window boxes, porches or balconies. More information on vegetable gardening in containers is available in [HGIC 1251, Container Vegetable Gardening](#).

Sloping areas are satisfactory if managed properly. Contour the rows to the shape of the slope (plant around the hill). Construct terraces if erosion results even with contoured planting.

Gardeners with poorly drained or steeply sloped sites can improve their sites through the use of raised beds. A permanent raised bed can be created with used cross ties, concrete blocks or similar rot-resistant material. The completed form can then be filled with a mixture of good topsoil and compost. Permanent raised beds are easy to maintain, and require less effort to control weeds and overcome poor soil or site problems. Raised beds can be any size, but narrow beds (about 3 to 4 feet wide) will allow the gardener to reach the center of the bed without stepping into the bed. More information on raised beds is available in [HGIC 1257, Raised Beds](#).

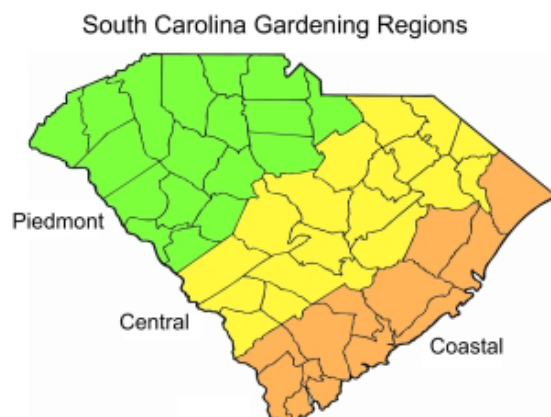
Season of Planting

The time at which vegetables are planted outdoors depends on the cold hardiness of a particular species or cultivar. Vegetables can be divided into two categories based on temperature requirements: cool-season and warm-season crops.

Cool-season vegetables originated in temperate climates and have their favorable growth period during the cool parts of the year. Cool-season crops grow poorly in summer heat. Though cool-season crops continue to grow well past the earliest freeze in the fall, they should be started early enough to mature before hard freezes are expected.

Warm-season crops primarily came from subtropical and tropical regions and require warm weather for seed germination and plant growth. They are injured or killed by freezing temperatures and should not be planted outdoors in the spring without protection or until the danger of freezing temperatures is past. Warm-season crops planted in the summer to mature in the fall should be planted early enough so they can be harvested before the killing freeze in the fall.

To determine when to plant cool- and warm-season vegetables in South Carolina, refer to Table 1. Knowing the number of days required to reach maturity, a gardener could determine the appropriate planting time for seeds and transplants by using the average dates of the first and last freezes in their area.



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.

Table 1. Planting Chart — Dates to Plant in South Carolina

Vegetable	Piedmont		Central		Coastal	
	Spring	Fall	Spring	Fall	Spring	Fall
Asparagus	Early Feb.- Late Mar.(crowns)	—	Late Jan.- Early March (crowns)	—	Early Jan.- Late Feb.(crowns)	—
Beans, Snap	Apr. 15-30	Aug. 1-15	Apr. 1-15	Aug. 5-20	Mar. 15-30	Aug. 15-30
Beans, Pole	Apr. 15-30	July 15-25	Apr. 5-20	July 20-30	Mar. 20-30	Aug. 1-10
Beans, Half- runner	Apr. 15-30	Aug. 1-15	Apr. 1-15	Aug. 5-20	Mar. 15-30	Aug. 15-30
Beans, Lima	May 1-15	July 1-15	Apr. 5-20	July 20-30	Mar. 20-30	Aug. 1-10
Beans, Pole Lima	May 1-15	July 1-15	Apr. 5-30	July 15-20	Mar. 20-Apr. 15	July 20-30
Beans, Edible Soy	May 10-June 15	—	May 10-July 1	—	May 10-July 15	—
Beets	March 1-30	Aug. 1-15	Feb. 1-28	Aug. 1-20	Dec. 15-Jan 30	Aug. 1-20
Broccoli ¹	Mar. 1-15	July 1-30	Feb. 20-Mar. 10	July 20-Aug. 15	Feb. 15-Mar. 1	Aug. 10- Sept. 15
Brussels Sprouts	—	July 15-Aug. 15	—	Aug. 1-15	—	Aug. 1-15
Cabbage ¹	Feb. 15-Apr. 1	July 1-30	Jan. 15-Mar. 1	July 25-Aug. 10	Dec. 1-Jan 15	Aug. 1-15
Cantaloupe & Honeydew	Apr. 15-May 15	June 15-30	Apr. 1-15	—	Mar. 10-Apr. 10	—
Carrots	Mar. 1-15	July 1-30	Feb. 10-28	Aug. 1-15	Dec. 15-Jan 30	Aug. 1-20
Cauliflower ¹	Mar. 1-15	July 1-15	—	July 25-Aug. 10	—	Aug. 1-20
Collards	—	July 1- Aug. 30	Feb. 25-Mar. 20	July 15-Aug. 15	Feb. 20-Mar. 15	Aug. 1-25
Cucumbers	Apr. 15-May 15	July 1-15	Apr. 1-15	Aug. 1-10	Mar. 20-30	Aug. 1-20
Eggplant ¹	May 1-15	July 1-15	Apr. 10-25	July 10-20	Mar. 25-Apr.10	July 20-25
Garlic	—	Sept. 1- Oct. 30	—	Sept. 15-Nov. 15	—	Oct. 1-Nov. 30
Kale	—	Aug. 15-Sept. 15	—	Aug. 15-Sept. 15	—	Aug. 15- Sept. 15
Lettuce	Mar. 1-15	Aug. 15-25	Feb. 1-28	Aug. 15-25	Dec. 20-Feb. 5	Aug. 15-25
Mustard ²	Feb. 1-Mar. 15	Aug. 15-Sept. 15	Jan. 15-Feb. 25	Aug. 15-Oct. 1	Jan. 1-Feb. 25	Aug. 15-Oct. 1
Onion, Sets	Mar. 1-30	Sept. 1-Oct. 30	Feb. 15-Mar. 15	Sept. 15-Nov. 15	Feb. 1-Mar. 1	Oct. 1-Nov. 30
Onion, Plants	Mar. 1-30	—	Feb. 15-Mar. 15	—	Feb. 1-Mar. 1	—
Onion, Seeds	—	—	—	Sept. 15-Oct. 15	—	Oct. 1-Oct. 30
Okra	May 1-15	June 15-30	Apr. 10-30	June 15-30	Apr. 1-20	June 15-June 30
Peanuts	May 1-15	—	Apr. 15-May 15	—	Apr. 25-May 15	—
Peas, Garden	Feb. 1-15	—	Jan. 20-30	—	Jan. 10-20	—
Peas, Southern	May 1-June 30	—	Apr. 10-30	June 20-30	Mar. 25-Apr. 15	Aug. 1-10
Pepper ¹	May 1-30	July 20-25	Apr. 5-25	July 15-25	Mar. 25-Apr. 10	July 20-25
Potatoes, Irish	Mar. 15-30	July 1-15 ³	Feb. 20-Mar. 10	July 15-30 ³	Feb. 1-15	July 15-30 ³
Potatoes, Sweet	May 10-June 10	—	May 1-June 15	—	Apr. 15-July 1	—
Pumpkins	—	June 1-15	—	June 15-30	—	July 1-15
Radish ²	Feb. 15-Mar. 15	Sept. 1-30	Feb. 1-28	Sept. 1-Oct. 25	Jan. 1-Mar. 1	Sept. 1-Nov. 1
Rutabaga	—	Aug. 1-20	—	July 25-Aug. 10	—	Aug. 1-20
Spinach ²	Feb. 15-Mar. 15	Sept. 15-30	Feb. 1-28	Sept. 15- Oct. 20	Jan. 1-Feb. 25	Sept 15-Nov. 10
Sweet Corn ²	Apr. 15-30	—	Mar. 20-Apr. 30	—	Mar. 10-Apr. 30	—
Squash, Summer	Apr. 15-May 15	July 1-20	Apr. 1-20	Aug. 1-15	Mar. 20-Apr. 10	Aug. 10-25
Squash, Winter	Apr. 20-May 15	—	Apr. 15-30	—	Mar. 20-Apr. 10	Aug. 10-25
Tomato ¹	May 1-May 30	July 10-20	Apr. 5-25	July 10-20	Mar. 25-Apr. 10	July 25-30
Turnips ²	Feb. 20-Apr. 1	Sept. 1-15	Feb. 1-Mar. 10	Aug. 1-Oct. 1	Jan. 1-Mar. 1	Aug. 25-Oct. 15
Watermelon	Apr. 20-June 30	—	Apr. 1-30	June 15-30	Mar. 25-Apr. 20	—

¹Transplant plants.

²For longer harvest season, plant at intervals during suggested dates.

³Seed potatoes for July planting and fall harvest may have to be mailed-ordered (usually unavailable from local garden supply stores).

Table 2. Vegetables Planting Chart

Vegetable	Seed (100-foot row)	Spacing Between-row x In-row (inches)	Planting Depth (inches)	Approximate Days to Harvest
Asparagus	—	36 x 18	4 crowns	2 years
Beans, Snap	¾ pound	36 x 2	1	50-60
Beans, Pole	½ pound	36 x 4	1	60-70
Beans, Half Runner	½ pound	36 x 2	1	55-65
Beans, Lima	¾ pound	36 x 3	1½	65-75
Beans, Pole Lima	½ pound	36 x 6	1½	70-75
Beans, Edible Soy	½ pound	36 x 3	1	60-70
Beets	½ ounce	30 x 2	¾	50-60
Broccoli	½ ounce	36 x 18	½	60-70
Brussels Sprouts	½ ounce	36 x 18	½	90-100
Cabbage*	½ ounce	36 x 12	3	60-80
Cantaloupe	1 ounce	60 x 24	1	75-85
Carrots	¼ ounce	30 x 1	¼	60-70
Cauliflower	¼ ounce	36 x 18	½	60-70
Collards	½ ounce	36 x 8	½	60-70
Cucumbers	1 ounce	60 x 12	1	50-60
Eggplant*	—	36 x 18	3	70-80
Kale	½ ounce	36 x 1	½	50-55
Lettuce, Leaf	¼ ounce	30 x 2	½	40-70
Lettuce, Head	⅛ ounce	30 x 12	¼	30-50
Lettuce, Mustard	½ ounce	30 x 2	½	40-60
Onions, Green	1 quart	30 x 2	1½ sets	35-45
Onions, Bulb	½ ounce	30 x 3	½ seed	100-120
Okra	1 ounce	36 x 9	¾	60-70
Peanuts	¼ pound	30 x 4	1½	100-120
Peas, Garden	1 pound	36 x 1	1½	65-80
Peas, Southern	½ pound	46 x 4	1½	75-85
Pepper*	—	36 x 18	3	60-70
Potatoes, Irish	12 pounds	36 x 12	3	90-110
Potatoes, Sweet*	—	36 x 8	3	120
Radish	½ ounce	24 x 1	½	25-30
Rutabaga	½ ounce	36 x 12	¾	100-110
Spinach	1 ounce	30 x 2	½	50-60
Sweet Corn	4 ounce	36 x 10	1	80-95
Squash, Summer	1 ounce	36 x 15	1	50-60
Squash, Winter	½ ounce	60 x 48	1½	90-120
Tomato*	—	60 x 24	4	70-80
Turnips	¼ ounce	30 x 2	½	60-70
Watermelon	½ ounce	60 x 60	1½	80-100

*Transplants

Excerpted from the South Carolina Master Gardener Training Manual, EC 678.

Prepared by Bob Polomski, Extension Consumer Horticulturist, Clemson University. (Revised 01/05. Images added 1/09.)

This information is supplied with the understanding that no discrimination is intended and no endorsement by the Clemson University Cooperative Extension Service is implied. All recommendations are for South Carolina conditions and may not apply to other areas. Use pesticides only according to the directions on the label. All recommendations for pesticide use are for South Carolina only and were legal at the time of publication, but the status of registration and use patterns are subject to change by action of state and federal regulatory agencies. Follow all directions, precautions and restrictions that are listed.