

Cauliflower

PLANTING

Cauliflower (*Brassica oleracea*, Botrytis Group) is a cool-season vegetable that can be challenging to grow. It prefers average temperatures of 60 to 65 F for best growth. Cole crops will “bolt” or produce a flower stalk if exposed to a prolonged cold period of 10 or more continuous days of temperatures between 35 and 50 F following a favorable growing period. The larger the plants are at the time of exposure to the cold period, the higher the incidence of bolting. Cauliflower must be planted early enough in the spring to ensure that the crop is harvested before temperatures become too hot.

Buy transplants locally or produce your own. Direct seeding is possible, especially for the fall crop. Transplants can be produced in about six to eight weeks for the spring and in about five to six weeks for the fall crop. When growing transplants in the spring, give them sufficient cold to harden off, but protect them from temperatures below freezing. Cauliflower is extremely sensitive to temperatures that are either too hot or too cold.

Plant cauliflower in rows that are 3 feet apart and spaced 18 inches apart in the row.

TRANSPLANTING DATES		
Area	Spring	Fall
Piedmont	March 1-15	July 1-15
Central	-----	July 25-Aug.10
Coastal	-----	Aug. 1-20

RECOMMENDED CULTIVARS

- Amazing
- Snow Crown
- Milky Way

SOIL

Cauliflower can be grown on many different types of soil but does best in a rich, well-drained soil with a high moisture-holding capacity. Soil pH is very important for these vegetables and should be 5.8 to 6.5 for best growth. Have your garden soil tested several months prior to planting and adjust soil pH according to recommendations.

FERTILIZING

A soil test is always the best method for determining the fertilization needs of the crop. Information on soil testing is available in the fact sheet HGIC 1652, *Soil Testing*.

Cauliflower is a heavy feeder. If a soil test has not been taken, a general fertilizer recommendation would be to apply 5-10-10 at 3 pounds per 100 square feet before planting. Sidedress in about three to four weeks after transplanting when the plants have become established, with ammonium nitrate at 1 pound per hundred feet of row or calcium nitrate at 2 pounds per 100 feet of row. Nitrogen is important for this crop to produce a high-quality product.

WATERING

Water the garden to provide a uniform moisture supply to the crop. The garden should be watered in the morning so that the foliage is dry before nightfall. Water sufficiently to moisten the soil to a depth of at least 6 inches. Light sprinklings will encourage shallow rooting of the plants. The critical periods for moisture are stand establishment and crop maturation. It is important to have a constant uniform moisture supply to produce a high-quality crop and to have the spring crop mature before high summer temperatures.

CULTURAL PRACTICES

Cauliflower is the most sensitive of the cole crops to adverse conditions and should never be stressed for water or fertilizer. Some cultivars of cauliflower require tying the inner leaves around the head to keep the head white. Many of the newer cultivars are self-blanching, which means that the inner leaves grow around the head closer and these plants do not require tying. For the cultivars that do not self-blanch, tie up the larger leaves when the heads first begin to appear.

HARVESTING AND STORAGE

Cauliflower should be harvested 60 to 70 days after planting transplants. Harvest when the head is fully developed and before curds begin to separate. Leave a ruffle of leaves surrounding the head when harvesting to prolong keeping quality. Store all cole crops in the refrigerator.

PROBLEMS

Hollow stem is the most common problem on cauliflower. In hollow stem, the main stem is hollow but the inside of the stem is not decayed. This is caused by a combination of factors, including low soil pH. Proper spacing and the application of boron will help reduce the problem. Another problem that can be serious is tip burn and internal browning. Good soil pH, proper watering and the correct balance between nitrogen and calcium will avoid these problems.

Insect problems include imported cabbageworm, cabbage loopers, diamondback moth larva, corn earworm and cabbage aphids. Flea beetles can severely damage small seedlings. It is important to control the insects before the heads start to develop.

Most diseases are not usually very serious on cauliflower, except black rot. Other disease problems include *Alternaria* brown spot, downy mildew, bacterial head rot, soft rot and wirestem. Head rot can be very serious on cauliflower.

More information about growing cauliflower is available in HGIC 2202, *Cabbage, Broccoli, and Other Cole Crop Diseases* and HGIC 2203, *Cabbage, Broccoli, and Other Cole Crop Insects*.

Excerpted from *Home Vegetable Gardening*, EC 570, 2002.

Originally prepared by Powell Smith, Lexington County Extension Agent, and Nancy Doubrava, HGIC Information Specialist, Clemson University.

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. (New 6/99, Revised 4/03).