



Growing Broccoli, Cauliflower, and Cabbage

David Hillock

Consumer Extension Horticulture Specialist

Three vegetables of the cabbage family, broccoli, cauliflower, and cabbage, may be successfully grown in Oklahoma gardens. They provide nutritious vegetables early in the gardening season. Broccoli is the more nutritious and contains substantial quantities of protein, carbohydrates, calcium, phosphorus, iron, thiamine, riboflavin, and niacin with very high levels of carotene (vitamin A) and ascorbic acid (vitamin C). Broccoli contains only one-third as many calories per pound as whole milk.

Soil and Climatic Requirements

These crops may be grown on a variety of soils, but do best in a medium-textured soil with additional organic matter, good drainage, and excellent water-holding capacity. These plants respond with vigorous succulent growth when supplied with needed fertilizers, moisture, and systematic care.

Since these are cool season vegetables, growth is best in the cool spring and fall seasons when supplied with adequate water and in a humid atmosphere.

Mulching should provide a cooler, more uniformly moist soil, which results in better plant growth. Do not use a film plastic mulch.

Starting Plants

It is recommended that one grow their own transplants. Seeds are planted approximately two months prior to field transplanting. Seedlings are transplanted to individual containers about one week later. These plants are grown until they develop 5 to 6 leaves, have a stem diameter one-half the size of a pencil or larger. They may be set in the garden from late February to mid-March depending upon weather and location in Oklahoma.

Plants of each of these three crops may be set in the garden prior to the last frost of the spring season. A starter solution may be applied at the time of planting to aid in getting them off to a fast start.

It is also a good idea to provide protection from insect attacks at that time. The most likely insect problem would be cutworms. Information on the control of cutworms is given in Fact Sheet EPP-7313.

Following planting and establishment, it is desirable to mulch the soil around these plants. They are usually set 18 inches apart in the row with rows two to four feet apart, depending upon methods of cultivation. Size and weight of cabbage heads will usually be less with closer spacing of plants in the row. Mulching is provided as a means of controlling grass and

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weeds, retaining soil moisture, and to allow the soil to remain cooler and encourage the development of a more extensive root system.

Of the three crops, cauliflower is the more difficult to grow followed by broccoli and cabbage in that order. There is more similarity between broccoli and cabbage with regards to culture. Cauliflower is more sensitive to a dry soil and to fluctuating temperatures.

As the plants develop in the season, it may be necessary to apply additional nitrogen fertilizer to stimulate leafy growth. Plants should be checked frequently to be assured that insect problems are not getting out of hand.

Four insects that may cause the most problems during the growing season are: the cabbage looper, the imported cabbage worm, the Harlequin bug, and aphids. Fact Sheet EPP-7313 provides recommended controls.

Since the quality of these crops is associated with maturation during the cool part of the spring season, it is extremely important to keep the plants growing luxuriantly during this season. One may determine the stage of development that is acceptable for harvest by different crops. For cabbage, check the firmness of the head and cut it when it reaches the size and firmness that is acceptable for you. This may vary depending upon the quantity of cabbage that you might have coming on at a given season. In the event much of the crop appears to be reaching maturity at the same time, it may be desirable to begin harvest a bit earlier than usual in order to avoid having an excess amount of material during the peak of the harvest season.

With regards to broccoli, the plant develops a sizable stem and head and should be harvested as the head increases in size to the point where the very earliest of the buds on the head open to show the yellow flower petals. At the time of harvesting, cut the head with only a short stem, leaving the side branches for harvest at a later time. The lateral branches on a broccoli plant will develop rapidly after the terminal or central head has been cut. We recommend only varieties that are branching in habit.

The harvesting of cauliflower is somewhat similar to the harvesting of cabbage in that the head or curd is allowed to develop to the size desired for harvesting. The only specific point of difference is that as the curd begins to develop and reaches a diameter of 1 1/2 or 2 inches, it is advisable to pull the main broad leaves up over the curd and tie them together to protect the curd from direct sunlight. If the curd is allowed



Cut the central head at this stage of development, leaving side branches to develop.

to develop and be exposed to direct sunlight, it usually develops a slight tannish or cream color and is often stronger in flavor.

When comparing the crops as home garden vegetables, one may harvest broccoli plants for a period of three weeks to as much as six weeks; whereas in the harvesting of cabbage and cauliflower, harvesting the one head terminates the production of that plant for that season.

Varieties

Fact Sheet HLA-6032 "Vegetable Varieties for Oklahoma," identifies some of the varieties most suitable for growing in Oklahoma.

All the varieties identified or recommended are of the branching type. These are also known as Calabrese varieties of broccoli. Some of the varieties that are recommended for the northern part of the United States are not too well suited for Oklahoma in that they are later maturing. We need to have production as early as possible due to the development of harsh flavor with high air and soil temperatures.

Each of these vegetables is excellent when prepared fresh for the table. Broccoli is more frequently selected for freezing preservation.



Tie cauliflower to protect the developing curd.

These crops may also be grown in the fall garden, but the difficulty here begins with the production of small plants in mid-July. Not only are plants more difficult to grow, but at the time of transplanting into the garden, more care must be given with regards to watering and protection from insects. The season of development and maturity is unusually good in the fall garden since it takes place during the cool nights and bright sunny days of late September and October, continuing on into November and even December, depending upon location in Oklahoma.

Additional fact sheets that relate to the culture of garden vegetables are:

- HLA-6004 Oklahoma Garden Planning Guide
- HLA-6005 Mulching Vegetable Garden Soils
- HLA-6007 Improving Garden Soil Fertility
- HLA-6009 Fall Gardening
- HLA-6012 Growing Tomatoes in the Home Garden
- HLA-6013 Summer Care of the Home Vegetable Garden
- HLA-6014 Making a Compost Pile
- HLA-6016 Asparagus Culture in the Home Garden
- HLA-6032 Vegetable Varieties for the Home Garden Oklahoma
- EPP-7313 Suggestions for Insect Control in Home Gardens

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