



## **Brassicas**

(See also related article on cabbages)

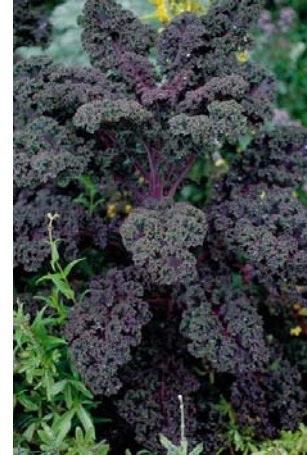
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### **We Are Family**

Members of the brassica family are amongst the top ten economic crops in the world. The group includes controversial transgenic crops like canola and vegetables such as broccoli that are credited with cancer prevention qualities. No matter where you live or whether you grow vegetables, flowers or just weeds, your garden is sure to be home to more than one representative of this diverse group.

### **You Are What You Eat**

Brassica crops offer a diverse harvest. In the case of cabbage, kale, collards, Brussels sprouts and cress, the leaves and buds are the major portion consumed. For broccoli and cauliflower it is the immature flower heads. A root and/or leaf harvest is obtained from turnip, swede, salad radish, daikon radish, wasabi and English horseradish. Kohl rabi, Chinese cabbage and other Asian brassicas such as mizuna are grown for their harvest of leaves and stems. The majority of mustard brassicas are grown for their seeds that are processed into the paste or powder we use as table mustard. Brassicas such as canola and rapeseed are grown for their harvest of oil.



### **Cancer Cure**

*Studies indicate that brassica vegetables are more effective in preventing the development of cancer than other foods groups.*

### **Flowers or Weeds**

The group also includes well-known ornamentals. Flowering annuals such as alyssum (*Lobularia maritima*), stocks (*Matthiola incana*) and candytuft (*Iberis amara*) are some of the more widely grown brassica representatives. And finally, there are those wild relatives of common vegetables that are generally referred to as weed species including wild turnip (*Brassica tournefortii*), wild radish (*Raphanus raphanistrum*), turnip weed (*Raphistum rugosum*).

### **Brassicas in Brief**

While there is a brassica vegetable suited to every climate, the most well-known representatives such as cabbages, cauliflower, broccoli, turnips and swedes are cool climate vegetables. Crops in most regions can be planted during autumn and harvested during winter and spring. Carefully selecting varieties allows gardeners in cool temperate regions to grow these vegetables all year round, but summer plantings are more subject to attack from chewing pests.

Plants have high nutrient requirements. Harvest periods vary from just a few weeks from seed for some Asian greens that can be grown in pots, to four months for cabbages grown in garden beds.

### **Space Savers**

Small gardens can squeeze in space saving kohlrabi, swedes, turnips and Asian greens by sowing seed or planting seedlings at close intervals. Delicious baby vegetables will be ready in no time. You can accommodate six or more plants in the room it would take to grow a giant cabbage and your harvest will be more diverse. Thinned seedlings provide a quick harvest and leave more room for remaining plants to develop. Look for root vegetables that provide tasty leaf greens in advance the root harvest and double your investment. Small headed cabbages and cauliflowers or sprouting broccoli that provides a repeat harvest are other options.

### **Cauliflower and Broccoli**

Cauliflower and broccoli are a little more difficult to grow than other brassica vegetables. The immature flower heads are the part consumed, so you are actually growing plants to a more



advanced stage within their lifecycle than species that are harvested for their foliage, roots or stems. Producing flowers is a demanding task for the plant, so nutritional needs of these plants are particularly high. The intricate branching of the flower stalks provides the perfect hiding place for tiny caterpillars and crops can be ruined before you realise.

### **Curds and Way**

Cauliflower is well suited to cooler climates, but will not tolerate prolonged frost. A good covering of foliage helps to protect the curds and produce crisp, white heads. *Phenomenal Early* and *Paleface* are popular varieties. The fast maturing *Early Snowball* is favoured by gardeners in warmer districts where the winter growing season is short. A cauliflower/broccoli crosses with pale green and purple curds are also available.

### **Bring on the Broccoli**

Broccoli can be grown successfully across a broad climate ranges. In cold climates plants should be given a head start by establishing them in early autumn. Planting in warmer regions should be left until late autumn and early winter. Regions with high Italian migrant populations often have the best range of varieties available. Some new hybrid varieties of broccoli have been bred to be more heat tolerant.



### **Up to Their Necks**

The weight of flower heads of both cauliflower and broccoli make these vegetables top heavy especially when you consider that plants reach over .5 metre in height. One technique to overcome the problem is to plant seedlings up to their necks. Seedlings grown in containers can be planted out up to the point where the first leaves form. This results in a greater proportion of the stem being buried, a deeper root system and a more sturdy plant.

Where seed is sown direct into the ground, expect germination in 10-12 days. Sow seeds into a shallow trench. Thin out or transplant any excess seedlings and gradually fill the trench with nutrient rich compost to provide additional support.

### **Feed Me**

Seedlings of cauliflower and broccoli need to be kept well watered and fertilised. Prepare the soil by adding plenty of rich compost and animal manure or digging in a green manure before planting. A pH of between 6.0 and 7.5 is preferable.

Where soil conditions are less than ideal, liquid fertiliser in the form of compost tea, soluble fish fertiliser and kelp or liquid manure should be applied each week. Even in fertile soil, applying seaweed-based products will help to promote strong, pest resistant plants.

### **Come Again**

Cauliflowers and broccoli are slow maturing with anywhere between 12 – 20 weeks required until harvest. Having waited that long you will want to make the most of your crop. A succession of axillary flower heads will form after the initial harvest providing adequate nutrition is available to plants. Cut cauliflowers will produce supplementary heads in the same way, though not to the same extent, as broccoli.

### **Caterpillar Alert**

Grow your own cauliflower or broccoli and you will soon realise that chewing insects, particularly the larvae of the cabbage white butterfly and cabbage moth, love these vegetables just as much as you do. Attacks can occur from the seedling stage, so it pays to be prepared. Derris dust, molasses and chilli sprays or hand picking of grubs are control options. The formation of leaves within the flower heads of plants is not caused by insects but by water and nutrient stress.

### **Seed Saving**



Saving seeds from broccoli and cauliflower is a little more difficult than with other crops. In order to preserve seed purity, broccoli and cauliflower must be isolated from each other and also from related plants such as cabbage and kale that are flowering at the same time. Many brassica are self-incompatible, meaning that individual plants cannot pollinate themselves. Be sure to allow several plants of the one variety to go to flower to ensure cross-pollination by insects.

#### **Cauliflower Varieties**

**Paleface** – This variety is aptly named. It is slow maturing, but produces large, white heads. A favourite in cool climates.

**Phenomenal Early** – Quick maturing for its size, this variety is often favoured by gardeners in warmer areas.

**Snowball** - What this variety lacks in size, it more than makes up for in rapid growth. Plant these for a quick harvest.



The Seeds Savers Network in Byron Bay reports that heirloom cauliflower varieties such as Metropole, Late Italian Giant, Black Sicilian and Green Glaze are extremely rare today. Gardeners still growing these varieties who have small quantities of seed they would be willing to donate to the Network should write to PO Box 975 Byron Bay NSW AUST 2481 or visit their website at [www.seedsavers.net](http://www.seedsavers.net).

#### **Broccoli Varieties**

**Di Cico Early** – This quick maturing, heirloom variety is flavoursome and produces a good repeat harvest.

**Green Sprouting Calabrese** – Tolerant of a range of climatic conditions, this variety take slightly longer to mature, but remains productive for an extended period.

**Purple Sprouting** – This selection has similar characteristics to green sprouting calabrese types, but produces masses of small purple heads.

The continued popularity of broccoli as a vegetable has seen it fair a little better than cauliflower when it comes to preservation of varietal types. Gardeners of Italian descent are often curators of their own family heirloom varieties that have been grown, selected and had seed saved by generations of gardeners.

#### **Links to Asia**

*The hot, green paste known as wasabi (Eutreme wasabi) which typically accompanies sushi is a relative of the common cabbage. In Japan this prized condiment is grown in the running water of crystal clear mountain streams.*