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### **CHAPTER 1 GROWING**

Dianthus is a genus of around 300 species of small herbaceous plants. They belong to the plant family "Caryophyllaceae".



These include annuals, biennials and perennials. The species has been cultivated by man for over 2,000 years. Cultivars of Dianthus have been important ornamental plants and cut flowers for a very long time; and remain so today.

- The common names "Pink" or "Carnation" are applied to many if not all species. In some places "Carnation" tends to refer more to larger flowered cultivars bred and grown for cut flowers; while "Pinks" may tend to refer more to plants with large numbers of small flowers, often grown in rockeries or containers.
- The common name "carnation" is most commonly applied to cultivars of the species Dianthus caryophyllus, that produce larger flowers than most other species.
- Most are from Europe to Asia
- Ancient Greeks and Romans grew them more as medicinal and culinary plants than as ornamentals. In ancient times one species was used to flavour homemade alcoholic drinks (It was called "Sops in Wine). Others, which had a clove like scent, were used to hide bad smells.

- Carnations became increasingly popular as ornamental plants throughout the 19th century in the UK, Europe, USA and elsewhere, Thomas Hogg wrote extensively about Carnations in the early 1800's. Around 1830 in Lyons, France, a new cultivar was raised. which became the forerunner of the modern perpetual flowering carnation. Various nurseries in the Lvons region continued breeding and developing cultivars for decades after that. American and UK growers continued to promote and develop cultivars though the late 19th and early 20th century.
- Montague (Monty) Allwood and his brother George, established a nursery in Sussex in 1910; through which many new cultivars were developed throughout the 20th century. D x allwoodii refers to a cultivar created by breeding perpetual flowering carnations with a hardy species called *D. plumarius*
- Before World War II; Carnations were often considered second class cut flowers, and did not usually command a high price at the markets, compared with things like roses or orchids. In the decades following the war though, a lot of breeding was undertaken, and quality as improved. Carnations began to become a more popular flower; and in many places today; carnations are one of the most widely cultivated cut flowers.
- Sweet William (Dianthus barbatus) is widely cultivated as an annual flower; bot as a bedding plant, and picked as a cut flower

- The cut flower carnation widely sold in florist shops originated from *Dianthus caryophyllus*. It was bred with other species of Dianthus at least with *Dianthus sinensis*; and has been developed extensively by plant breeders over more than 180 years to get the cultivars we grow today.
- Many other species of carnations are grown today in a wide variety of situations including: as rockery plants, border plants, container plants and as herbs.

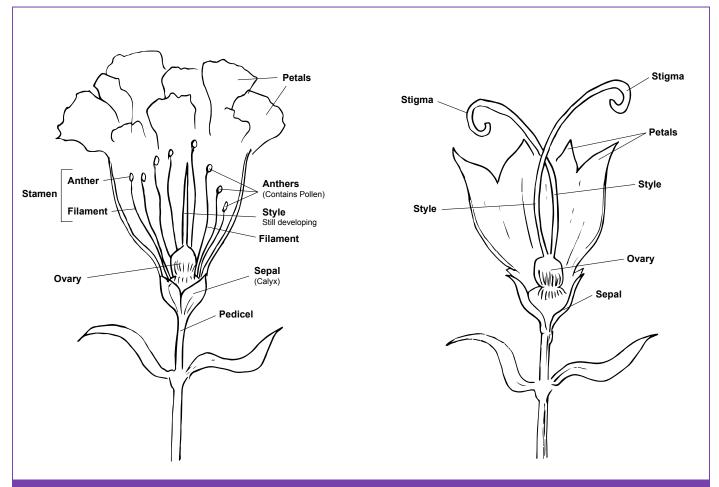


## BOTANICAL CHARACTERISTICS OF DIANTHUS

- leaves are opposite
- each pair of leaves is joined at the base by a sheath that rings the stem
- nodes (point from which leaves emerge) are swollen sections of stem
- flowers occur singly, or in a panicle

   (a panicle is a cluster of flowers
   sitting on a branched series of stalks)
- a tubular calyx

- usually five petals
- ten stamens
- two styles
- one celled ovary
- four valve caps with the fruit
- flowers are often but not always fragrant
- flowers often showy, mostly pink or reddish, but can be other colours
- generally best flowering is on two year old plants.



Mature Anthers (Male parts develop fully before female parts have matured. This ensures cross pollination between different flowers)

Mature Stigmas (Female parts have develop fully after the male parts largely disappeared from the Dianthus flower)