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# CHAPTER 1 BOTANY, SCOPE AND NATURE OF CUCURBITS

Cucurbits are plants that belong to the family 'Cucurbitaceae'. This is a particularly important family of plants which includes a wide range of vegetables and other useful plants as well as environmentally significant plants. At one extreme, in some circumstances, cucurbits play an important role in soil stabilisation. At the other extreme, some cucurbits are considered to be serious weeds.

Cucurbits are a broad group of creeping or climbing plants from mostly tropical to subtropical climates where they are mainly perennials. Some originate from temperate regions and although many species can be grown successfully in temperate zones, they are typically annuals in these regions.

There are thought to be more than 110 genera and up to 850 species in the family, although experts vary in their opinions with respect to the exact numbers. Of particular interest are those species which are classed as cucumbers, pumpkins, melons, and squashes.



Cucurbits come in all sorts of shapes, sizes and colours

## DISTINGUISHING CHARACTERISTICS

The main features of cucurbits are as follows:

- They are annual or perennial herbs.
- They are tendril-bearing plants with a climbing or creeping habit.
- They are fast-growing.
- The foliage contains a lot of sap.
- They don't tolerate frost or very cold soil (most will not tolerate temperatures approaching 0°C).

#### Notable botanical features are:

- Leaves are arranged alternately along the stem, typically on long stalks.
- Leaves are frequently roundish, simple; entire or lobed (often palmately lobed).
- Tendrils often form along stems on annual species, allowing plants to climb.
- Plants are typically monoecious (with only male of female flowers), sometimes dioecious.
- Flowers are generally regular and commonly have 5 united sepals, 5 petals - and typically 5 stamens.
- The ovary is inferior.
- Fruits are large, fleshy and berry like.

