

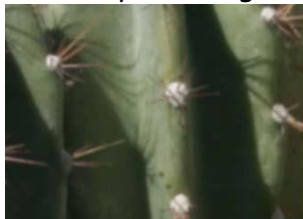
# ALL ABOUT CACTI

Cacti are perennial, that is they live for more than a year, and they do not die after flowering. The plant body is often fleshy, often columnar and sometimes globular. It is these shapes which give a reduction of the surface exposed to evaporation. The thickening of the skin and the reduction of the pores also help to reduce the loss of moisture. Several species have also developed tuberous roots for additional water storage.

All plants belonging to the **cactus** family have six characteristics in common.

- The fruit is a single-celled berry. The seed pod has no internal divisions to divide it into sections. It may be dry, juicy, smooth or spiny, and often large and highly coloured.
- Each seed has two cotyledons. This means that when the seed germinates the two seed leaves appear at the same time. They remain to supply food for the developing plant—they disappear as the plant becomes established.
- Areoles or spine cushions are always present. These are latent points for growth, usually bearing cushions of wool or glochids. From these areoles, arise new spines, leaves (if any) roots, new joints and flowers.
- The flower is borne above the fruit. This means the ovary is inferior. The ovary must be below the point where the petals are inserted.
- The stigma is always divided into a number of lobes—in the genus *Echinocereus* they are a vivid green.

The waxy covering of the **cactus** skin often apparent as a 'bloom' on some cacti, again



helps reduce diffusion of water vapour through the skin during the hot weather. Fluting and ribbing of the stem allows the rapid expansion or contraction as water is supplied or withheld with a minimal risk of splitting. This permits the plant to store water reserves rapidly when water is available. The thin-walled cells also help the storage.

Several species have also developed tuberous roots for additional water storage.

These roots are often bigger than the exposed stems of the plant e.g. *Peniocereus johnsonii*. The plants which are exposed to hot desert sun have evolved a copious spine covering, which helps to give protection to the skin by shading it to some extent.

Cacti must have:

- Well-drained compost free of stagnant moisture, containing little or no active nitrogenous material.
- A proper resting period during winter to develop the previous season's growth and help develop the flower buds in many species.
- Ample light and fresh air such as a well-lit, ventilated glasshouse or northern aspect. Some of the plants will tolerate a southern light. In the towns it is a good

idea to spray overhead to wash off the dust and allow the breathing pores to function to their best ability.

- Those who grow them in the snow areas—cacti will need protection from frost and snow, since too much will lead to rotting or unsightly scarring.

Cacti will not tolerate:

- High humidity combined with cold—they will rot.
- Nitrogenous fertilisers as commonly found in garden fertilisers, either natural or artificial. It is better to use very old animal manure or leaf mould.
- Too much watering or too high temperature during the dormant season is nearly always fatal and is the most common fault of new growers. Too much water in the cold weather will cause the roots to rot off. If the temperature is too high, the plants will be forced to start into new growth too early to the detriment of the next season's flowers.
- Fumes from gas heaters, fires or kerosene heaters are all highly dangerous to cacti. These fumes will kill them. Any form of combustion heating is safe providing the exhaust fumes are prevented from coming in contact with the plants.