

Cacti

Cacti belong to the family cactaceae. All plants (and animals) are classified into groups known as families, which are subdivided into genera. Genera are then divided again into species and varieties. Plants in the same genus but of different species share some basic characteristics but may differ in size, shape or colouring.

Correctly labelled plants have a genus name followed by a species and if appropriate a variety.

Cacti or succulent?

There is a lot of confusion about the differences between cacti and succulents. The only difference between them according to Ken March in his book titled 'Cacti and other Succulents' is that **cacti are equipped with spines that emerge from areoles on the plant.**

Cacti produce many types of spines depending on the variety of the plant. Although the larger spines provide more dramatic protection for the cactus even the smallest almost invisible spines can act as a deterrent towards predators. Apart from act as a defence mechanism spines are thought to be primitive leaves and as such act as a life conserving mechanism to protect the plant from extreme lack of water such as occurs in the arid climate of the desert. Spines might actually help to reduce water loss as the cactus body begins to shrivel; the spines become closer together increasing the protective shield effect.

Succulents are similar to cacti (see above) they have the facility to store water in a swollen storage organ; the developments of succulents can be quite different. Where cacti may consist of pads or columns or barrel-like swollen modified stems, other succulents vary from what may appear to be a spine-less cactus form to one that looks similar to an ordinary plant which happens to have fleshier leaves.

Cacti and other succulents share the characteristics of being able to store fluids for long periods allowing them to survive periods of drought their natural habitat.

Where they grow

While succulents can be found in America, Africa and even Australia, most cacti can only be found in North and South America with just a very few exceptions such as the epiphytic cacti which is found in parts of Africa.

However cacti and succulents do not, as many people think, live in pure desert conditions. They do grow in semi-desert but always where there is some soil present, never in pure sand.

Some cacti and succulents are epiphytes and are tree-living, being found growing on trees where their ability to grow on a small root

system with a minimal reserve of water helps them to exploit their potential even in such a difficult situation.

Historical development and relevance in the other parts of the world

When the great plant collectors of the sixteenth and seventeenth centuries accompanied explorers on their world travels, the discovery of cacti and other succulents, particularly in the new World of the Americas, caused a tremendous interest. Great collections were started in Europe and much research and study was made of the plants as they were classified and listed by such famous botanists as Linnaeus, who established the name cactus for the first time in his work classifying the plant families of the world.

Although few cacti and succulents have any real commercial value they have been used in some interesting ways. The fruit of the Opuntia or Prickly Pear was once commercially developed to provide a major food. Although this idea for wide spread cultivation failed it is still grown on a lesser scale. Some cacti have melon-like qualities being composed of 95% water, some varieties of Opuntia can be made into a type of jam or marmalade, while the famous alcoholic spirit "Tequila" is made from the fleshy tissue of a variety of Agave; another can be made into wine and the fibrous tissue of yet another is made into rope.

Cacti have also been used as a hedging, which is not only stock-proof but also likely to deter rustlers.

Cacti and other succulents have long occupied a special place amongst botanists and plant collectors throughout the world. Some people collect only one group of plants such as Mammillaries many of which are very free flowering. Small collections can be grown together in bowls or individually in pots. A greenhouse is recommended for large collections although windowsills and conservatories are still suitable for the small collectors.

Botanical gardens in England and around the world provide large cacti collections, which can be admired by those who are interested. In these situations they are generally planted out rather than pot grown.