

Cacti and Succulents

Natural defenses in a rugged climate



Cacti and succulents are some of the world's most unusual plants. They live in some of the driest and most inhospitable climates in the world - some in the Atacama Desert where until recently it had not rained for over 400 years!

How can these plants survive in such places? Cacti originate from America whilst succulents are found right around the world. Cacti and succulents have evolved over millions of years and have changed to adapt under dryer conditions. The trunk, roots and leaves store every drop of water the plant can drink or collect in fleshy or spongy tissue, leaves have become smaller and leathery and in some cases have transformed completely into hard spines.

This reduces the amount of water a plant loses through its leaves and provides protection by repelling thirsty animals looking for water. The spines and hairs are also used to protect the plant from high UV light and to collect moisture, as well as fog and mist. However - some also live in tropical forests why is this?

Many of these plants have developed further defenses against marauders with bad tasting or toxic sap just below the surface and spines with poisonous or acid tips to make sure their water reserves are kept to themselves. So for most of these spiky plants - it's best to follow the rule "Look, but don't touch"!

Man has learned to use these valuable, often beautiful and sculptural plants in many ways. The tough leaves on some are woven into fibre to make cloth and rope, the juice is extracted and distilled to make alcohol and the spines are used to make needles for sewing.

Desert dwellers know which plants are safe to drink from and which ones are poisonous. Even birds, mice and other animals have learnt to live in, amongst and under these spiky plants for their own protection. Today, cacti and succulents are popular plants for desert themed, low water and modern architectural gardens.

The cactus and succulent garden can be found in the Malta Precinct of the Mackay Regional Botanic Gardens.



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