

Learning from orchids in the wild

By Dr Fred

Epiphytic orchids grow naturally on rocks and trees, without the benefit of pots, mixes, feeds and insecticides. One of my first orchids was a *laelia anceps* which I grew outside on a piece of casuarina tree for many years. If you think about how they grow in the wild, you can learn a lot about orchid cultivation and avoid many basic mistakes.

It is easy to see when these plants are happy and thriving from their healthy, exposed, green-tipped roots. The roots firmly work themselves into grooves in the bark usually on the cooler side of the tree or the underside of a branch.

What does the orchid get from this close relationship with its host? It gets a firm platform for growth in a good location. When we divide and repot our plants they should also be staked or otherwise firmly stabilized to encourage new growth.

Orchids are not parasites and probably only derive minimal nutrition from the tree. The occasional passing bird contributes some fertilizer, but we should appreciate that an orchid's demand for this is not great.

These exposed roots are usually healthy but if we surround them with too much potting mix (over-potting) this will soon become stale and toxic to the plant.

Exposed roots are regularly washed by rain and dry out rapidly. This is an important key to cultivating many species, such as cattleyas. Cattleya orchids have no need of back bulbs as the tropical weather and rain pattern in their native habitat is similar all year round.

When an orchid lives on a tree there is no risk of build-up of salts and other breakdown products from fertilizer. This should encourage you to periodically give your potted orchids a good flush with clean water (this is also called leaching).

Location, location, location. Orchids in the canopy thrive with the best aspect which offers just the right combination of shade and sunlight. To duplicate this at ground level in the garden I often need to move the plant twice a year. Living high in the tree-tops means lots of air movement from breezes which reduces the risk of fungal and other diseases.

In exposed positions, many orchids must endure cold winter by going into a dormant phase, living off the energy stored in their pseudo-bulbs. My *laelia* survived a number of Canberra winters with only frost protection. During this phase the dry roots and bulbs shriveled but survived to shoot again in the spring.

Over-watering or over-feeding during dormancy upsets these survival mechanisms. Cold, wet potting mix must be avoided at all costs.

During hot dry spells the orchid must obtain what moisture it can through its leaves and roots in the cool hours before dawn or draw on reserves in back-bulbs. This should not occur in cultivation where watering can be provided daily if necessary.

If you have a suitable tree in your garden and a spare piece of cattleya or dendrobium, tie it on to a branch facing East using old panty-hose. Casuarinas and magnolias are ideal in Sydney, but any tree with knobbly or grooved bark will work just as well.