

Growing Native Orchids in Pots – Healthy Roots

By David Butler

The culture of our native orchids is an enjoyable hobby but some aspects can be a bit of a mystery, especially to new growers. We may overhear experienced growers discussing a plant on the show-bench and be surprised they are sometimes more interested in the potting media, roots and size of pot rather than the leaves and flowers. As these are vitally important considerations, I have put together a few thoughts based on my understanding of why we do things the way we do; an understanding gained from listening to wise counsel, learning from experience while making all the usual mistakes, and getting used to the orchids' ability to communicate.

Orchid Roots

The roots of native epiphytic orchids consist of a hard, wiry core surrounded by a thick spongy layer called velamen which takes up and holds any available water. This may be from rain, dew, fog and mists – or in our case the hose – and provides a continuous supply of water to sustain the plant through dry periods. Orchid roots change colour from white (dry) to green (full of water), a good indication of whether mounted plants have received enough water or need a second spray with the hose. Once thoroughly wet most orchid roots like to be surrounded by fresh humid air and may die if kept very wet for too long.



Sarcophilus Velvet mounted on a gutterguard 'pot' with happy roots.

Pot size

What we know as "potting mix" is designed to keep the roots happy and able to function efficiently, the result being that orchid pots may seem too small for the size of the plant, and easily give an impression that the grower is a bit of a scrooge or too lazy to repot the orchid. To satisfy our curiosity and learn a bit more about culture it may be a good idea to take a closer look and if a plant is healthy and flowers regularly (check out the old raceme bases), simply ask the grower about it. Never hurts to ask! I once asked a *Cattleya* grower how he got away with growing in composted shavings and it turned out this was a thin layer on top of a potful of straight blue metal, put there simply to maintain humidity in the air around otherwise barren stones.

Watering

This goes hand in hand with potting mixes as the two cannot be considered separately. Water seems to simply run down through the potting mix and on to the ground, but in travelling through it fulfils important roles: the velamen becomes wet and stores water and available nutrients for the coming days; the potting mix soaks up water and gradually releases it to maintain humidity around the roots; the water rushing through ventilates the air spaces by drawing in clean fresh air.



Sarcophilus Velvet in a pot with large bark so the roots are well ventilated.

Potting medium

Growers often choose a basic potting mix to suit most of their cultural requirements, and they simply adjust its composition as needed for individual orchids. Most native orchid mixes are bark-based with added ingredients and may be very 'open' (coarse ingredients) or 'fine' (smaller ingredients). A safe starting point is chunky pine bark with a few stones mixed in, both being of a suitable grade for the roots and size of pot.

Finally

Trying too hard to keep your orchids happy can sometimes result in over-watering or over-potting. In natural conditions roots have a firm hold on the tree or rock-face, so too generous a choice of pot may result in the potting mix remaining too wet or the orchid feeling insecure. When we repot 'in the next size up' we should take into consideration that each 'size up' is roughly double the volume of potting mix and so may need coarser ingredients and less frequent watering, all things we take in our stride once we get used to the needs of 'healthy roots'. **Good growing and happy orchids!**

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