

# Is Your Orchid Thriving?

By Dr Fred

A healthy, thriving orchid is easy to recognize. Not only is it disease free, but the leaves and stems are upright and do not droop. The colour is a uniform mid-tone green. Multiple new shoots are coming on and developing quickly.

The roots are often the neglected “window on the orchid’s soul”. Healthy growing roots have a green tip and burrow into the mix or across its surface.

A healthy plant that has found its niche is more likely to flower and resist disease.

It is often difficult to work out why an orchid is not thriving because many things are usually happening at the same time and many things can cause similar symptoms. There are usually clues. A good start is to read up on an orchid’s cultural notes to see if you are providing the right conditions.

**Inspect the plant for disease** remembering that scale and other pests are opportunistic and prefer damaged and poorly located plants. They are also masters of concealment even hiding amongst the roots.

**Black tips on the leaves** usually indicates either excessive nitrogenous fertilizer or a build up of salts in the potting mix. These should be leached out regularly during the growing season with a thorough hosing. A similar appearance can also simply indicate adverse growing conditions.

**Black spots on the leaves** can follow strong nitrogen fertilizers but may indicate fungal infection requiring treatment and repotting. Water drips on the leaves overnight can lead to bacterial or fungal infections especially in Phalaenopsis. Brown or black spots are also commonly seen in sunburn (too much direct sun).

**“Accordion” leaves** on Miltonias and Odontoglossums indicate insufficient humidity and adverse growing conditions especially in winter.

**Yellowing leaves** could be normal aging (if on old bulbs and starting at the tips), but if all the leaves are affected this is more likely due to cold or too much sunlight. Nitrogen deficiency is unlikely if the plant is being fed regularly so resist the temptation to pile on the fertilizer. Instead...

**Inspect the roots.**

You may suspect root damage if the leaves become limp and wrinkled, and then yellow and drop off. This is because the roots cannot absorb water or nutrients.

The damage from bad potting mix or root chewing pests such as snails and scarab grubs is readily seen by knocking the orchid out of its pot. This is always a good diagnostic manoeuvre which checks out the roots, the mix and the underside of the leaves. Scale and the silvery sheen of spider mite are best seen this way.

During a normal dormant phase, roots may temporarily look “blind” until new growth starts. Garlic snails are tiny and roots are a preferred food so check for signs of chewing.

At other times, if the roots have black tips and look dead and lifeless, the common problems are overwatering and over-potting. Remember that if the roots go the plant dies. Change the potting mix to something more free draining, remove dead material and try a smaller pot.

**A change in aspect**

Insufficient warmth or sun in winter are common causes of reduced growth and flowering. As the best location varies with the season, a number of moves may be needed during the year. It helps to be aware of the many microclimates available in your garden.

To find the orchid which is not thriving you need to inspect your plants regularly and thoroughly. A torchlight visit to the shadehouse can also solve many puzzles due to snails, slugs and cockroaches.

**Heat stress** can be seen in cool growing species in summer heat waves, first as leaf droop, then yellowing or brown spotting of the leaves, then sudden leaf drop. Indicator plants and frequent inspections can give early warning. Relocate the orchids to the coolest part of the shade house or bring indoors to the bathroom until the heat passes, water and keep humidity high.