

Reviving an Old Cattleya Pseudobulb

It is bound to happen. Every now and then we end up with a single leafless pseudobulb either as a result of us dividing our cattleya or someone else dividing their cattleya and tossing the scraps our way.

What do we do with these lowly backbulbs? Do we toss them into the compost bin? That is always option number one.

But for some adventurous folks out there who enjoy the challenge of coaxing backbulbs to produce new plants, this article might prove interesting.

For this article, we will take the most extreme example for cattleya growth: A single pseudobulb – a backbulb to be specific.

As most of us know, a single backbulb has all the odds stacked against it:

1. It has no leaves to receive solar energy
2. It has no roots to replenish lost fluids.
3. A single pseudobulb only has a finite number of foliar buds that can produce new leads. These are commonly called “eyes” or “dormant eyes”.

The plant does gain some solar energy from chlorophyll that exists in the pseudobulb itself and is able to absorb some moisture through its body. But it is minute compared to what the roots and leaves could have absorbed in the first place.

The idea behind this article is that: If I can help you revive the orchid from such extreme conditions described above, then you will have a much easier time if the orchid you are reviving is in better shape than the example. Maybe it has leaves to support it, perhaps it has multiple pseudobulbs still connected to each other, etc. Like Old Blue Eyes said, “If I can make it there...”

First Step: Evaluate the pseudobulb if it is still viable

- Check if it still has any available foliar buds (eyes)
- Make sure the pseudobulb is not diseased and is virus free.
- Make sure that the pseudobulb itself still contains enough stored nutrients and fluids to support the emerging new growth. (Green and plump is the ideal case)

Growing Conditions:

- Protect the plant from sunlight.
- Protect the plant from heat.
- Provide plenty of moisture, but avoid soaking the emerging bud in standing water.
- Provide plenty of air circulation to prevent fungus/mould from setting in.

You will want to avoid low humidities and high temperatures as this will cause the plant to expend stored water at a faster rate. Remember, rootless plants have very little capability to replace lost water.

Let's call this Plant A. Make sure the pseudobulb is not buried under the potting media. It is just sitting above the media, supported by a bamboo stake.

The idea here is to keep the pseudobulb close enough to the potting media that it benefits from the available moisture, but the plant itself does not get soaked by the water present under the potting media.

No roots = no need to water.

The plant just needs enough ambient moisture so that it is not forced to evaporate its own water to maintain equilibrium with the surrounding microclimate.

During this stage, the nourishment of the emerging bud is almost completely provided by the old pseudobulb.

From the time that the new lead emerges, up to the time that it has produced its own roots, it is almost completely dependent on the old pseudobulb for nutrition. Any damage received by the emerging lead will delay its progress and will prolong its dependence on the old pseudobulb.

If the pseudobulb's nutrient reserves are exhausted before the new lead can develop functioning leaves and roots, the new lead will most likely die. And that ends the journey of our dear plant.

That is why having more pseudobulbs attached together provides a much better success rate – they have more combined energy reserves to provide to the new leads. That provides a much better margin of error for the plant and the gardener.

For the photo below, the three attached pseudobulbs produced a faster growing, more robust new growth. After the roots developed, I repotted the plant and buried the roots under the orchid bark.

With cattleya's, there are two types or stages of roots.

1. Primary roots – these are the roots that grow directly from the pseudobulb.
2. Secondary roots – these roots grow from the primary roots.

Depending on the lineage, some cattleya's may only have primary roots. Typically, the primary roots only emerge from the growing pseudobulb. Mature pseudobulb's rarely produce new primary roots, if ever. Live primary roots from a mature pseudobulb, can produce secondary roots however.