

June 2010 - Growing Roots

A monthly growers advice column by Courtney Hackney. Hackneau@comcast.net

How do I get my orchid to grow roots? This is one of the most asked questions because so many new orchid growers start with the gift of a pot plant that, unfortunately, stays too long in the medium. But even those of us who have grown orchids for many years can find individual clones or times when an orchid just will not grow roots.

When the weather is warm most orchids will readily grow roots. There may be a few exceptions to the rule, but even those will at least grow a few new roots this time of year.

In nature, most orchids grow new roots when the growth of new leaves begins. For orchids with rhizomes, this usually happens when a new growth is maturing. For orchids that grow from a central stem, e.g. phalaenopsis and vandas, new roots are associated with the onset of the rainy season or warm weather. Thus, your orchids should be getting new roots right now.

There are some things that can prevent an orchid from growing roots, including insects and disease. If you have an orchid will not grow new roots, especially if it was just repotted, then some action may be necessary to stimulate new root growth and save the orchid plant. An orchid without roots will eventually die.

The first question to ask is whether the problem orchid is a species. If that is the case, then a quick check with an appropriate book will tell you if there are special issues with respect to new roots for that species. Many of the large bifoliate cattleyas, e.g. *C leopoldii* and *C bicolor* have specific times when they grow roots. These should be repotted only when they are about to get new roots.

If your orchid is not a species or a species with no specific rooting issues then a check of the plant is necessary. Are there currently live roots on the orchid? Are the leaves wilted or shriveled? If there are many live roots, but leaves are shriveled then look for insect pests. Scale insects, mites, and mealy bugs can all suck enough liquid from a plant that has good roots to cause desiccation of leaves. You may need to take the orchid from the pot, look under leaves and even check the living roots. Don't be hesitant to use a magnifying glass because some of these "beasts" are tiny. If you just find one it is a good bet there are more and this is the problem.

A fine jet of water can be used to remove scale from the leaves, under roots and even between leaves. My preference is to follow this procedure several times from different angles to be sure all are removed. It only takes one to regenerate a whole new colony.

If most of the roots are dead then the issue is likely either disease or decaying medium. Using the same fine water jet, wash the entire plant thoroughly and let it dry.

If there are soft spots on the rhizome or stem apply 2% Hydrogen Peroxide, the stuff you have in your medicine cabinet. After 15 minutes, soak the entire plant, not just the roots, in the recommended concentration of "Root Tone" or similar hormonal stimulant. Some orchid books maintain that orchids do not respond to such a treatment, but they will. Soak for 15 minutes and then let dry.

Next keep your orchid in a shady location. For me they go under the bench. Some growers that have humidity issues will remove all dead tissues and place the plant in a clear plastic bag under the bench until new roots appear. It is necessary to be sure no water accumulates in the bag. Once new roots appear repot, but keep the orchid under lower light until there are enough roots to anchor the plant in the pot. Then it can be slowly moved into its normal light regimen.

Getting vandas to grow roots can also be an issue. Members of the vanda group will occasionally become very leggy and refuse to grow roots on the stem, resulting in large plants with leaves at the top, roots at the bottom and a long stem in between. Find a long plastic window box that will hold the root mass and as much of the stem as possible and soak in "Root Tone" for 30 minutes. Place back in its normal location and wait. Typically, new roots will emerge from what looked like a dead stem. After these roots get 2-3 inches long you can cut just below these new roots and repot the top portion. Within a few weeks the lower part of the stem will sprout new leaves and you now have two plants.

Jacksonville Orchid Society member Dr. Courtney Hackney, Retired Emeritus Professor of Biology at the University of North Florida, is a noted author and acknowledged "orchid expert." He published a column of orchid advice that ran for many years, and we are presenting select articles with his permission.

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