



St. Augustine Orchid Society

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Poorly Growing Plants

June 2001

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[Orchid Growing Tips](#)

The Summer Solstice occurs late this month indicating that the sun is at its peak even before the intense heat of summer arrives. Most hybrids of just about all the different groups of Orchids are growing rapidly now. Do your best to give them the water, fertilizer, and air movement they need to maximize that growth. Most repotting should be done by now because this is a time when Orchids can quickly replace roots lost during repotting.

When you repotted your Orchids this spring, did you note which ones did well and what media and pots were used? Observation of successful culture and poor culture will help you understand what it takes to grow better Orchids with more flowers. Remember that all orchids are not created equal; some grow better and more easily than others. There are even Orchids that commit suicide.

Most experienced growers will tell you that there are Orchids that refuse to grow no matter what you do. They are not referring to difficult to grow species or Orchids that come from very different habitats than exist in greenhouses, but to plants that should grow but do not. Why won't these plants grow? How do you know if there are "non-performers" in your collection?

If the majority of your Orchids grow and flower well then you may want to examine those that do not and consider replacing them. Their poor performance may have little to do with their culture. Some hybrids lack vigor just because of their parentage. These will always be a challenge. If you see the same hybrid doing well in another grower's collection ask about their culture. Often it will not be a culture problem; instead they may simply have found a more vigorous clone of that hybrid.

The same phenomenon can occur with mericlones. While mericlones are theoretically all the same, there are sometimes individual plants that grow better. This seems to be especially true of yellow Cattleyas, but can be found in any taxonomic group. If you are picking out a mericlone, pick plants in the largest pots, as they may be the most vigorous ones. The runts of the litter often never grow as well.

There are many reasons some plants do not grow as well as others. Hybrids close to original species are usually more vigorous than those many generations away from the species. Certain species in the background of a hybrid almost always mean that the plant will be more difficult to grow. This is true for many genera.

Do Orchids have a maximum life span? Most of the books describe Orchids as being immortal. While there are clones in cultivation that were originally pictured over 100 years ago, most individual plants seem to lose their vigor after 15 years or so. This is likely not caused by age, but by disease. Plants, unlike animals, do not have immune systems that destroy bacterial, fungal, and viral invaders. Instead, they tolerate and coexist with many of these infections. Each disease, however, takes a toll on the plant by using some of the



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energy captured by the plant from the sun. The plant's defense is to try and outgrow the disease. If the plant acquires enough different diseases it can no longer outgrow the disease and eventually succumbs. The best way to avoid this problem is to acquire high quality plants and practice good hygiene in the greenhouse, especially when repotting.

Viruses are very important in plant vigor. Even when there are no obvious signs, they take a toll. There are reliable tests for only two Orchid viruses, while many others cannot be detected. When infected plants are mericloned they carry the virus with them. Vigorous seedling mericlones can quickly become difficult to grow mature plants after they bloom for the first time. Flowering takes a large store of energy from an Orchid and allows the virus to catch up with what had been a fast growing plant. Scale infestations can cause the same effect as flowering if a plant is virused. After scale is eliminated most Orchids begin to grow well again while others never seem to recover. These plants typically test positive for virus and will never recover.

How do you solve this problem? Throw plants away! If the plant has some special memory or is a rare clone it may be worth keeping. Most, however, should be discarded and replaced by a less problematic plant. If you feel that it is not a disease problem, but a problem with your cultural conditions give the plant to another grower. Avoid giving diseased plants to novice growers, as it can be very discouraging to nurse an ailing plant. Novice growers also tend not to understand the need for good hygiene and may infect their other plants. Instead, give them divisions of your most vigorous Orchids to insure that the only disease you will infect them with is the "Orchid Bug".