



St. Augustine Orchid Society

www.staugorchidsociety.org

Selecting New Plants

by Sue Bottom, sbottom15@hotmail.com

You hear all kinds of suggestions for how to select an orchid to bring home. Buy the largest plant you can afford, only buy blooming plants, buy a blooming plant each month to have flowers year-round, and on and on. There are so many different approaches to buying orchids, which is best for you?



1. Vandas with their vibrant colors are almost irresistible. The best grown plants have leaves all the way down the stem and lots of thick white roots.



2. Orchid shows are a great place to find seedlings and blooming sized plants from a variety of vendors, offering plants not seen in the big box stores.

Some orchid growers love species, finding perfection in nature's beauty. Hobbyists and commercial growers line breed: self, sib and outcross species to change flower size, form, stem arrangement and other desirable qualities. Seedlings of species available today are often better, with respect to judging standards, than those found in the wild. Purists, however, believe these line-bred species are more accurately called hybrids.

Technically, hybrids are produced when two different species or hybrids are used to produce seedlings. Each seedling contains a unique combination of genes, so each seedling produced is, to some degree, unique, with variable growth habits and flowers. No one can predict exactly what the flowers on a new hybrid will look like, but experienced hybridizers have a goal for each hybrid and usually provide a range of expectations for seedlings of a new hybrid. Blooming a seedling for the first time is one of the great pleasures of growing orchids.

Sometimes a flower is so extraordinary, that it is cloned to produce an exact genetic replica, a mericlone. Mericlones are often given a cultivar name that follows the hybrid name within single quotation marks. Awards to the clone follow the clonal name. Some desirable cultivars may be unavailable or extremely expensive, but a mericlone of that exact plant may be commercially available and relatively inexpensive.

Tetraploids, denoted as $4n$ on the plant tag, have twice the number of chromosomes that Nature intended. Tetraploids are desirable because even though they may grow a little more slowly, the flowers are larger, have more substance and deeper color saturation than their



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2N counterparts. Hybridizers use tetraploid parents in their breeding program for specific purposes. When only one parent is tetraploid, the progeny will have two sets of that parent's genes vs. one set from the 2N diploid parent. The tetraploid parent asserts double the influence. When both parents are tetraploid, the offspring will all be tetraploids, and more uniform.



3. Make sure the plants you buy are healthy and well established as well as having beautiful flowers.



4. Look for wider, bigger leaves on phalaenopsis, with no signs of wrinkling or dehydration.

Mature Plants. New growers are often told to buy blooming sized plants, because it is easier to keep a mature plant healthy than it is to raise a seedling to blooming size. Plus, you know exactly what to expect when it reblooms next year. This is easier if your new orchid is healthy, particularly if you are just learning how to take care of orchids. Once you have decided on the plant with irresistible flowers, it is time to ignore the flower and inspect the plant to make sure it will not require any special attention in the near term. Be aware that plants in flower as well as seedlings are often ready to be repotted. Repotting is a major expense for commercial growers, so expect many orchids for sale to require repotting within a year.

- ✦ *Well Rooted.* Your new plant should be established in the pot, with healthy roots. You should be able to lift the plant up by its leaves, pot and all. If the plant is wobbly in the pot, you might suspect it was either recently repotted and the roots have not yet recovered, or the potting mix is starting to break down and the roots are suffocating. A good root system is critical for your plant to thrive and provide you with future blooms. If you decide you want to rehab an ailing plant, accept the possibility that this may push the next blooming date back by a year or two. Many experienced hobbyists repot all orchids they purchase. This ensures that a new plant is in the medium that works best for the grower and eliminates any uncertainty about root health.
- ✦ *Clean and Green Leaves.* Healthy orchid leaves are green, occasionally with purplish freckling, and some have natural silvery markings. Beware of brown and black markings, brown leaf tips, yellow chlorotic spots or soft and sunken areas. These blemishes are



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danger signs. Leaves should be thick and turgid. Do not buy plants with wilted leaves, which can be a sign of abuse, root damage or disease.

- ✦ *Plump Pseudobulbs.* The pseudobulbs or canes should be full and hard, without soft spots. On many orchids, including cattleyas, you might notice brown papery sheaths on the outside of the pseudobulb. These are protective tissues that protect emerging growth as it develops. These brown to black sheaths should be dry. If the tissue looks wet, rot could be a problem, so make sure the underlying tissue is hard.
- ✦ *Plant Tags.* Make sure there is an identifying plant tag in the pot – one that you can read! That ugly little plant label tells you the plant's name, from which you can learn many things. The plant name includes the type of orchid you have, so you can determine how best to care for it. From a plant name you can find its parents, grandparents, etc. dating back to the early days of orchid hybridizing.

Seedlings. As you become more confident in your growing skills, you may find you are attracted to seedlings. They are less expensive, take up less space, and you will be the first to see it bloom, unless it is a mericlone. Some people buy multiples of seedlings of the same hybrid, so they can see how much variation there is in a cross. They keep their favorites and give others to friends or their club's raffle table.

If you are at an orchid show or club meeting, you will often see a whole tray of seedlings offered for sale. Which one should you select? Pick out the one you think best, and then, if the sales booth is not too busy, ask the vendor which one they think you should buy. Then ask why, some of the interesting insights I have heard include:

- ✦ *Strong Growths.* Find one with strong new growths or leaves. You may gravitate to plants with lots of new growths, but a plant with multi-lead growths may tend to put its energy into vegetative growth rather than blooms. For cattleyas, a better plan is to look for single or double lead growths, where each new growth is substantially larger than the older growth. These vigorous growers mature more quickly and bloom sooner than one with clusters of small growths.
- ✦ *Healthy Runts.* Select one of the runts, as long as it looks healthy. It may be one of the slower growing tetraploids that will have larger flowers and more substance once it finally matures.
- ✦ *Wide Leaves.* Look for wide and thick leaves. Greater leaf surface area means these will be able to generate more energy reserves than one with narrow leaves. Wider and thicker leaves may also suggest a tetraploid. When there is a lot of variation in the leaf morphology, choose a few plants that have different characteristics to see the range of variation that might be exhibited in some of the more complex hybrids.



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- ★ *Unbloomed.* Buy one that has not yet bloomed. You might end up with an incredible flower, or a seedling that the grower might have discarded had he seen it bloom. Of course, previously bloomed seedlings can also be a sign of floriferousness or the flowers might all be of uniform good quality. Ask the vendor if he has bloomed any of the plants and what they looked like.



5. Imported plants may have to be pampered to recover from the trauma of root loss, treatments required when they enter the U.S. and the radical change in season if from the southern hemisphere.



6. Healthy catasetums will have a thick firm pseudobulb that is larger than the older growth, indicating plenty of energy reserves for flowering.

Vendors. Get to know your vendors. Some growers have stellar reputations for healthy, well-grown plants, making high quality hybrids or having unusual plants. You will meet them at your local Society and at Orchid Shows. Ask questions when you purchase a plant. When they are not busy, try to get some insight into their hybridizing or growing conditions. Learn the type of orchid for which they specialize, whether they do their own hybridizing and growing or purchase stock for resale. If you find a vendor whose plants grow and bloom well for you, patronize their sales booth. If they also sell on eBay, you can be comfortable making on-line purchases because you know the quality of their material.

Overseas vendors often bring bare root plants for sale at Orchid Shows. These plants are often unusual, tempting the orchid hobbyist to purchase them. They can be a greater growing challenge, having just lost most of their root system. If they are from the southern hemisphere and you buy in July, the plant thinks it is winter. It can take a year or two to adjust to seasons in the northern hemisphere. Perhaps southern hemisphere plants are better purchased in January and February, so they will go through a double summer while they are adapting. This is particularly true of winter dormant plants like the *Catasetinae*.

My approach to orchid buying these days is simple. Mericlones are bought when young and less expensive, as I know what flowers will look like. Seedlings of desirable hybrids are bought, often in multiples, and bloomed. Wait for the second bloom before deciding if a plant is a keeper. Form often improves with a little age. Look at the sales booths of all vendors,



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but normally buy from your favorite vendors. The ones who have a great eye for hybridizing and whose plants have healthy root systems. Always be on the lookout for some new alley to go down, whether it is trying new genera, collecting different color forms of a favorite species or just love at first sight.

Citations and Additional Reading:

Clarke, Fred. 2012. Choosing a Healthy Plant. *Orchids*, 81(4): 200.

Gripp, Paul. 1965. Brief Look at Polyploidy. *Orchids*, 34(2): 135-138.