

by Dr. Carl L. Withner, Canadian Orchid Congress

There is a problem in fitting the right orchids with the appropriate beginner. In a vast plant family with over 20,000 species and twice that number of cultivated hybrids, producing a proper match between plant and grower is the first step toward successful growing. This success usually implies flowering at least, as most of us are not sufficiently "esthetic" to be satisfied with only beautiful variegated leaves or graceful grassy foliage - without blooms. There are foliage orchids but most require warmth and high humidity and are not the easiest subjects for starters.

In a survey we made of home growers — on window sills or under lights - people said several times, "I grow orchid plants well, but I want flowers!", while others said they wanted only plants that could be recognized as orchids. Just be advised that success with any kind of orchid plant leads to another, and then another, so even as a beginner, start making plans for your greenhouse soon!

There are a few caveats for the beginning grower besides trying to grow the most suitable plants. One is to realize that it takes one to three years for greenhouse grown plants to adapt to new home conditions. That's true for any plant moved around, but it can be critically important for the home grower with perhaps less than ideal conditions. (If you're growing good plants but without flowers, as the person quoted above, give them more light.) Another caveat is to start your orchid venture with several mature plants that will continue to bloom seasonally. Acquire seedlings as you go along and improve your knowhow gradually; you'll still have the mature plants for flowers without waiting so long for seedling rewards. Finally, do have several plants at once, along with other house plants — they grow better "en masse", and your worry over a new growth or a broken root won't be concentrated on just one item. Spreading out your worry is very helpful, enhances the therapeutic aspects of orchid growing and makes it all the more addictive and enjoyable.

Orchids require the same environmental factors as other plants for proper growth, development and the flowering. Since most orchids grow rather slowly and deliberately, you can usually observe by their appearance whether or not the proper conditions are being provided. They are slow to grow and slow to die, and this gives you time to change conditions if they are not satisfactory. The environmental factors listed would be: light (both amount and length of day), humidity, temperature, watering, potting medium, air and finally fertilizers or nutrients. The last-named is usually much overemphasized and overdone, often to the deteriment of the plants, when the other items are far more important. Of course it's the balance among these that's critical, and the born "green-thumber" is the person who "thinks like a plant" and through past experience immediately recognizes that a plant needs new soil, or more light, or whatever. You don't have to talk to them, but daily observation of their performance — and reacting properly to what you see — will result in developing your green thumb. Finally, don't be dismayed if a plant dies. We all have our un-successes; the plants we most like and find impossible to grow! Well then, either change the growing conditions or try to transfer your affections to other types of orchids.



by Dr. Carl L. Withner, Canadian Orchid Congress

Remember too, that how you grow them today will have its influence next year. It's a long term continuum of good care that is required.

Of all the environmental conditions, the balance among light, temperature and humidity is most important for good growing. Orchids require fairly high humidity as a rule — 50-70% or higher for some, and usually fairly bright light and temperatures from 60-75 degrees F. Many will grow and flower with those ecological parameters. It has been said that if you can grow ferns, rex begonias, or African violets, you can grow orchids. It's a good comparision, as these plants too are critical of this same balance of light, humidity and temperature. In home conditions, humidity is often a main problem so that humidifiers or frequent misting or such other arrangements as wet gravel in trays are necessary. Also, for most orchids there is a critical temperature differential necessary between night and day — 10 to 20 degrees. This drop at night is a factor for general good growth and imperative for flowering in many plants. Potting material and fertilizing need to balance. Tree fern. osmunda or composts have some nutritional content and will not need much supplemental fertilizer. Bark mixtures generally have no mineral content and require continual fertilizing, usually of diluted nutrients high in nitrogen, the nutrient that is most easily washed out and lost for the use of the plant. I, personally, belong to the school of fertilizing with extra dilute amounts — perhaps one quarter of whatever is called for — used fairly often, but always with some plain waterings between times to prevent any toxic build-up. If you forget or miss a few times, it won't make a big difference; the plants will still be O.K. and when they're dormant it can be skipped altogether.

What are some of the tolerant orchids that will grow and flower with least difficulty? "Tolerant" to me, means plants that can take too much light, too little humidity, too high temperature, or too low, and still behave. Many are species, and either they may be grown directly, or their hybrids may be chosen, as they will usually have the same characteristics as the parents.

The lady slippers - either cool types with solid green leaves or the mottled-leaved intermediate sorts — are easy to grow and do not require high light. This makes them ideal subjects for cultivation under lights if that's your arrangement. Phalaenopsis, particularly *Phalaenopsis lueddemanniana* or its hybrids are also good subjects for under-light-growing, but they require intermediate to warm temperatures and higher humidity than many other orchids. They flower readily over long periods, and the flowering stalks can branch for secondary flowering that extends their season. They bloom readily from seedlings and may not be as expensive as other orchids.

In the Cattleya alliance, a few species or their hybrids are tolerant, but they tend to be medium or larger-sized plants. If you've the room and enough light, then try *Cattleya aurantiaca* or any of its many hybrids bright-coloured flowers in Spring and easy to grow. Taller plants are produced from fall-blooming *Cattleya bowringiana* and its hybrids such as C. Portia, but they are tried and true under tough conditions and almost always produce

by Dr. Carl L. Withner, Canadian Orchid Congress

flowers. If you must have a purple cattleya, try *Cattleya percivaliana*, a medium-sized plant, flowering after Christmas and easy to grow into specimens.

All the terete-leaved Brassavola species are good candidates for beginners, particularly *B. nodosa*, the Lady-of-the-Night orchid with its aromatic perfume only in the dark. There are many hybrids of *B. nodosa* available with various cattleyas or laelias and they all behave well. Another vast alliance of orchids includes the yellow/brown oncidiums, either alone or hybridized with their cousins, the odontoglossums, the miltonias or the brassias. These are often described as cool orchids, the odonts especially, but the hybrids tolerate intermediate temperatures well. They flower with branched sprays of bright-colored blooms. *Odontoglossum bictoniense* and its combinations are particularly good, and also look out for *Oncidium splendidum* or *Onc. tigrinum* and their progeny.

This will get you started, at least, but by no means a complete list. Some will suggest Dendrobium kingianum or Dendrobium nobile in their many forms, or Maxillarias perhaps, or Lycastes. If you must have a Sophronitis, try Sophronitis cernua, more tolerant than the other species and not as demanding of cool, humid conditions. And for a red orchid, Slc. Jewel Box 'Dark Waters' would be my prime choice. It has *C. aurantiaca* in the ancestry and grows readily.

Now, you're on your own! As your orchid green thumb develops its calluses, remember to read as much as you can about growing orchids. There's a wealth of good books and journals available, and often commercial catalogs will contain helpful information. As your knowledge increases, you'll soon be ready for that greenhouse. Good luck!

Note: The late Dr. Carl L. Withner wrote this article for the Canadian Orchid Journal in the Spring of 1982, and it was reprinted in the March 2008 Canadian Orchid Congress newsletter, a great searchable source of orchid information.