

Florida Flower Grower



MONTHLY NEWSLETTER
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AGRICULTURAL EXTENSION SERVICE, UNIVERSITY OF FLORIDA, GAINESVILLE

April 1965

Vol. 2, No. 4

ORCHIDS SUITABLE FOR RETAIL GROWERS

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One of the most frequent questions posed by retail growers is "What crop can I grow that will help increase my income without taking up a major portion of my range?" One of the best answers to that question is to grow orchids.

Usually when you mention the word "orchid" most people immediately think of purple-flowered Cattleyas, and rightly so, as they have long been the most popular in the trade. The genus *Cattleya*, however, contains a mere 50 species in a family of over 15,000 known species. Actually many of the so-called botanicals and spray type orchids are easier to grow than some large flowered varieties.

It is recommended that a retail grower try growing *Phalaenopsis*, *Dendrobium*, *Oncidium*, *Vanda* and *Epidendrum*. These genera have numerous species or hybrids which can be used. *Phalaenopsis Doris*, *P. Pamela*, *P. Rothschildiana* or butterfly orchids are excellent spray types. They will have from a few to 25 or more flowers per spike and flowers measure up to 4 inches across. Most *Phalaenopsis* grown have white flowers with a dash of yellow in the throat, however, other varieties have varying amounts of pink in the sepals and petals and speckled lips. A yellow flowering type has been introduced. All are ideal for corsages. Flowers are known to remain open on the plants for six weeks or longer. Frequently when a spike is cut a secondary spike will develop on the old stalk below the original flower head, thus extending the blooming season. These plants are very easy to grow.

Dendrobium phalaenopsis and its hybrids are some of the better corsage types. The lavender or white flowers, which are borne in profusion on a well grown plant are also long lasting. There is no telling how many flowers a healthy *Dendrobium phalaenopsis* will have. Flowers on these spikes, like most

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
(Acts of May 8 and June 30, 1914)

Agricultural Extension Service, University of Florida,
Florida State University and United States Department of Agriculture, Cooperating

M. O. Watkins, Director

other orchids, open gradually and remain open for several weeks. Two or three of these flowers will make a very nice corsage. The thin texture of some of the flowers adds to the enhancement of the corsage. Quite often old canes of *Dendrobium* will flower a second or third time, thus producing flowers for three years on one cane. They are a prolific group in that offsets are frequently produced on the cane. When each offset has produced several aerial roots, it can be cut from the parent plant, and will frequently flower after one year of growth. Few flowers are produced at first, followed by profitable numbers during ensuing years.

Many other *Dendrobium* species that are grown are also well adapted for corsage work. There are yellow flowered varieties in this genus and some with cork screw-like petals that can be readily used for exotic corsages.

Oncidiums commonly referred to as dancing girls are excellent subjects. These dainty yellow and brown or white and brown flowers are suitable if used alone or in combination with other orchids. The small flowered *O. stipitatum* can be used as a filler or for ear lobes or wristlets as the flowers are less than an inch in diameter. The large flowered *O. splendidum* with their yellow and brown color combination can be made up into a corsage that is really different. These hardy plants flower even under adverse growing conditions, but naturally, flower much more profusely when properly grown.

Vandas are becoming one of the most popular genera among orchid growers. The wide range of colors, which incidentally, includes some fairly good blues, and browns and the long life of the flowers has added greatly to their popularity. *Vandas* are often grown in Florida in hanging baskets containing only charcoal. Of course, they are fertilized. Many people call this group the pansy type orchids since most of the flowers are flat, similar to pansies. Some of the more popular strap-leaf varieties are *V. sanderiana*, *V. manila*, *V. corinne*, *V. venus*. The terete and semi-terete *Vandas* include the well known *Vanda Miss Joaquin*, *V. Princess Elizabeth* and *V. Nelly Morley*.

Epidendrum radicans, *Epidendrum hybrids*, along with the new Epi-cats (*Epidendrum x Cattleya*) with their fine pastel shades are becoming popular garden subjects in south Florida and house plants elsewhere. These are undoubtedly one of the easiest orchids to grow and one of the most prolific groups. The tall thin reed-like growths are constantly putting out aerial roots and it is relatively simple to take tip cuttings with a few aerial roots and pot them. Although the flowers are small, about one inch in size, they are produced in great profusion. The excellent pastel shades can be used as fillers in making corsages or arrangements. One Hawaiian grower is reported to have 100 different pastel shades available.

Many of the spray type orchids can also be used in flower arrangements. The graceful curves of spikes of *Phalaenopsis* and *Oncidium* lend themselves very readily to exotic arrangements.

A few plants of each of these above genera would provide growers with a wide variety of material for corsage work for a long period of time. These plants can be grown in pots suspended from a pipe above the bench or attached to the gable end of the greenhouse, thus increasing income without increasing the amount of bench area needed. Little extras like these help a greenhouse to be a profitable enterprise.

The culture of orchids probably worries more people than any other factor and rightly so since a great many orchids die even under tender care. However, if a few basic steps are followed you shouldn't have any trouble growing orchids.

LIGHT:

Most orchids have to be grown in partial shade, therefore, it is best to shade the section of the house you intend using or else grow them in an area that you have already shaded for foliage plants or African violets. Dendrobium phalaenopsis, Oncidium and Vanda will grow best in 20-30 per cent of normal outdoor light, whereas Phalaenopsis requires only 10-15 percent of normal light and only one type of shading will be necessary. For the deep south, it is advisable to apply a permanent shade to the house as our high light intensities during the winter months require us to maintain shade throughout the year.

TEMPERATURE:

Temperature is our second most important factor. A night temperature between 60° and 65°F. is considered good if you are growing a mixture of various species. Phalaenopsis grows best at night temperatures of 65-70°F. and Dendrobium, on the other hand, will grow well at a night temperature of 50°F. All the plants, however, will grow very well if the temperature is maintained between 60° and 65°F. That is night temperature and refers to the minimum temperatures. Actually, the temperatures will be considerably higher for a greater portion of the year in the southern states.

The genus Epidendrum is one of the more rugged and will grow in full sunlight as will some of the terete Vandas.

POTTING:

Potting is not a problem in orchid culture, however, most plants need to be repotted about once every two years.

There are a number of materials, used by orchid growers, that are considered quite adequate for culture of epiphytic orchids. Substances, such as fir bark, osmunda or tree fern fibers are some of the most widely used materials.

When potting with osmunda the bottom of the pot is covered with broken crock. Next osmunda fiber is packed in on top of the crock. The plant is set in the pot and additional osmunda is packed around the plant to hold it in place. Barks simplify potting as they are easier to handle than osmunda. First you pour a small amount of bark into the bottom of the pot, set the plant in place and then pour in more bark packing it around the roots as you would soil. The bark should come up to the base of the rhizome the same as osmunda. Once the bark is in the pot, the pot can be tapped to help settle the bark and the plant is ready to be set out on the bench.

Although barks, especially fir bark, osmunda and tree fern are very popular, many other materials are being used. In addition to plastic foam and calcined clay growers are using volcanic cinders, tree fern logs, charcoal, clinkers from sugar mills, peat moss and various combinations of these materials. One can readily see that many orchids will grow and survive in a wide range of media.

FERTILIZATION:

Probably the two most important cultural factors involved in any medium are fertilization and watering. Growers using osmunda or tree fern as a medium generally use a 1-1-1 ratio fertilizer, such as a 10-10-10, at the rate of 1#/100 gallons/400 square feet*. In terms of the small grower that would be sufficient material for 1600 six-inch pots or 3600 four-inch. Consequently, one-quarter pound to 25 gallons would be enough for 400 six-inch pots. These rates would be based on a monthly application. If fertilizer is applied every two weeks then use half as much fertilizer per application. On the other hand, when orchids are grown in bark, a grower should use a 3-1-1 or 30-10-10 fertilizer at the rate of 1#/100 gallons. Plants growing in bark are receiving three times as much nitrogen as those growing in osmunda. Why is all this nitrogen necessary? There are two reasons for this difference. First, osmunda and tree fern fibers contain a small amount of nitrogen, up to 3 per cent which is released as the fibers decay, and consequently, made available to orchid plants. There is little or no nitrogen in barks. Secondly, bark in the pot is being decomposed by a myriad of microorganisms which thrive under cultural conditions in which orchids are grown. These microorganisms attack the bark and not the plants; however, they have the ability to obtain nitrogen at the expense of the plants. Thus, they are detrimental in this manner. Consequently, when fertilizing, enough nitrogen must be added to take care of, not only the needs of the plant, but also those of the microorganisms. When this balance has been reached, then excellent plants can be grown in bark.

WATERING:

Watering, or more accurately incorrect watering, has probably caused the death of more orchids than any other malady. Unfortunately due to the wide variety of cultural and climatic conditions encountered within the State, there is no general rule of thumb recommendation as far as watering is concerned. The best method is to water plants thoroughly and then not water again until the top layer of the medium is dry. The time lapse between waterings will vary with size of pot, size of plant in the pot and climatic conditions. However, despite all this a grower can set up a very effective watering program. During the cool months a six-inch pot, if watered thoroughly, need be watered only once a week. The same pot will have to be watered twice a week during hot summer months. Smaller pots will require more frequent waterings. The main thing to remember is to water thoroughly and not water again until top layer of the medium is dry.

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