

## Miniature Cymbidiums\*

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**M**INIATURIZATION IS ACCUSED by the skeptics of being just a fad like the watchfob, which was popular so many years ago. And skeptics say that miniaturization is like the Charleston—here today and gone tomorrow. Just a passing fancy. But I do not believe this is so. Americans like miniature things. We have miniature poodles, we have breakfast cereals in all sorts of miniature shapes and we have little Volkswagens. And all of these things are very popular—so popular that it is almost safe to say that a large proportion of the American people like miniature copies of large, life-sized objects.

### CYMBIDIUM MINUET

This cross began the trend to miniature Cymbidiums when it was registered in 1942 by Mr. H. G. Alexander.



Miniature Cymbidiums are increasingly popular and so it is proper that we discuss them not only from the point of view of how they got that way, but how to grow them and what we can expect of them in the next few years.

Miniature Cymbidiums are designated by the size of the flower and not by the size or type of foliage. The Cymbidium Society of America has prescribed a particular rule for miniature Cymbidiums. A Cymbidium is a miniature if its flower is not over two and a half inches across. I do not believe the American Orchid Society follows this rule for they have a different type of judging which depends on the breeding background. "If there is a dwarf species in the background, then the plant can be a miniature," says the American Orchid Society.

Miniature Cymbidiums did not just suddenly appear. And we in America did not invent them. They were around a long time ago. A thousand years ago, a Chinese scholar by the name of Kin-Sho published a book called Kin-Sho's

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CYMBIDIUM KORINTJI  
(*Cym. ensifolium* × *Cym. Rangoon*)

Orchid Book and in it he described some of the dwarf species. In modern times, about 1942, the well-known H. G. Alexander and his son started the first miniature-flowered Cymbidium — *Cymbidium* Minuet. It was made from a dwarf species, *Cymbidium pumilum*, crossed onto a standard-size species *Cymbidium insigne*. *Pumilum* has dwarf flowers and dwarf foliage. Minuet has long been a favorite for its dwarf flowers and foliage and has received an Award of Merit from the Royal Horticultural Society.

Most of the miniature-flowered Cymbidiums have been bred from only a few of the dwarf species. Quite a number of other dwarf species are about to be used, or are used in the crosses that are growing but that have not yet flowered. The favorite dwarf for breeding is *Cymbidium pumilum*. *Pumilum's* flower is about as big as a fingernail but it is responsible for most of the popular miniatures available today. *Cymbidium ensifolium* is another favorite and its hybrids are becoming more prominent. When *ensifolium* is combined with standard types of Cymbidiums, we come up with things like Peter Pan, not only a popular variety but a variety having many plants with excellent flowers, very round in form and under two and a half inches across. Another popular miniature is *Cymbidium Patricia*

Ann. Patricia Ann is *aloifolium* × *Dryad*. *Aloifolium* has large foliage and relatively large bulbs but it produces a relatively small type of flower.

Good form and color are beginning to appear in miniature *Cymbidiums*. Up until just a few years ago we were satisfied to obtain just a miniature-flowered *Cymbidium*. That was enough of a novelty. But the novelty began to wear off and people became tired of having a flower that was small and with not very much form. And not only did they demand better form but they wanted color as well. These are the things we are beginning to see. But the way they came about was not easy.

The big breeding question has always been, "What do you get when you make the cross?" Suppose you take *Cymbidium* Flirtation, which is a well-known cross, and it is hybridized onto a standard-size conventional *Cymbidium*. What can you expect? Will the result be miniatures, or dwarfs, or semi-miniatures, or just what? On the basis of the knowledge we've gained so far, I think you would find quite a large percentage of the cross would revert to standard-size parent and that the remainder would range from the standard size down to the semi-miniature type. This is the big problem confronting every breeder, and he has to learn to live with it. Up to the present time we have only had diploid miniatures and these have been primarily of the *pumilum* type. But now we are going into a new phase. There is a new word that has been coined recently—"polymins." Polymins are polyploid miniatures. For example, if I take *Cymbidium* *Alexanderi* 'Westonbirt', which is a standard-type, tetraploid *Cymbidium*, and cross it onto a diploid miniature, I'm going to come up with something that by American Orchid Society standards is still a miniature-flowered *Cymbidium* but will have a much better form. And it will be a triploid miniature with all that the term triploid implies.



CYMBIDIUM ORIENTAL LEGEND 'CINNAMON'  
(*Cym. pumilum* × *Cym. Babylon* 'Castle Hill')  
A polymin hybrid produced by Dr. Lee Lenz.

Possibly the two miniature crosses that are foremost on the market today of this new type are *Cymbidium* Oriental Legend and *Cymbidium* Evening Star, both made by Dr. Lee Lenz. The two crosses are happy combinations resulting in fine polymins. Both are made from the dwarf *pumilum*. In the first cross, *pumilum* is crossed with *Cymbidium* *Babylon* 'Castle Hill', a tetraploid. In the second cross, *pumilum* is crossed with a tetraploid *Balkis*.

Free flowering is an important objective in breeding miniatures. Most of the things you see today, the *finlaysonianum* and the old *aloifolium* hybrids, will not fit into the free-flowering category. They are not flowering as freely as we hoped they would, and they are growing too large. This means that basically we are going to use things with *pumilum* and *ensifolium* in the background, for many of these are really free-flowering plants in that some of them bloom two and three times a year.

The *pumilum* and *ensifolium* hybrids have other advantages. They are small in stature; they do not take up a lot of room. This is as important for the amateur who has only so large a growing space as it is for the commercial grower. Some of these plants, but not all of them, are scented. This is especially true of the *ensifolium* hybrids. Many of these hybrids are warm growing. This fact is especially important for people who can only provide adverse conditions. I do not say they will grow under every single condition, but hybrids with *ensifolium* and *pumilum* will flower under Cattleya conditions.

Miniature Cymbidiums are early. At Christmas time, we have a wealth of miniature Cymbidiums in bloom and only a few standard Cymbidiums to look at. Miniature Cymbidiums make good gifts. We find that Flirtation, Bo Peep and many of Mary B. Ireland's crosses, bred from *pumilum* species, are delightful for this purpose. We can break off a few green bulbs, say in February, pot them on and next year we have an excellent chance of blooms to make an ideal gift.

Growing miniatures is not like growing standard Cymbidiums. Most of them can take much warmer temperatures — Cattleya conditions, for example, with temperatures of 63°F. at night and even up to 90°F. in the daytime — and still bloom. Standard Cymbidiums generally cannot do this. On the other hand miniatures do not have to have warm conditions. We find that we can grow them outdoors under normal growing conditions in southern California, even with temperatures going down close to freezing, without any damage to the bulbs. We find that miniatures must have as much light as the standard Cymbidiums, but we cannot give them as much fertilizer. Fertilize them at the same rate as the standards — say once every two weeks — and they will show tip burn on the leaves faster than the standards. So we have to cut the fertilizer in half or fertilize, for example, only once a month.

Most Cymbidiums do better potted in a loose type of compost. Firbark with a binding agent of hapuu or peatmoss makes an ideal loose friable mixture. The miniatures should be potted rather high in the pot. The Japanese pot their miniatures quite high and mound their compost around the bottom of the bulbs. They do this because when the bulbs are high in the pot, there is little chance of new spikes damping-off from too much water or too damp conditions as they emerge.

Now what of the future? We are going to see lots more color and much better form and substance. There is even a possibility of a breeding program based on dwarfs and miniatures and combining the results with standard types to produce a strain of Cymbidiums that will bloom under warm conditions with fairly good-sized flowers of excellent shape and substance. This would permit the grower in the warmer regions of the United States — Florida and Texas and Arizona — to enjoy Cymbidiums as we do here on the West Coast. The future of the miniature Cymbidium looks very rosy. We anticipate seeing everything fine we see in the standard types in the miniatures. And the big thing is, that we can put more of them in less space. — *c/o Fred A. Stewart, Inc., 8606 E. Las Tunas Dr., San Gabriel, Calif.*