



## Cultural Requirements of Cymbidium

By James Rose

The most universally grown genus of orchids could be *Cymbidium* (sim-BID-ee-um). Ease of culture, variety of color and lasting quality of the flowers are but a few of the factors that justify its popularity. Although once raised primarily for cut-flower production, cymbidiums today are an integral part of many hobby orchid collections. Cymbidiums are often the first orchid tackled by hobbyists.

The genus consists of approximately 50 species, and many are cool growing. The majority of these originate in the highland regions of India and Burma. Other groups include the miniature species of Japan and China, popular for their small stature; the species of Australia; and species from tropical Malaysia (which are not discussed here because of their great differences in culture). Today's collections consist mainly of hybrids from the first three groups. The group(s) from which these hybrids are derived will dictate which cultural path to follow.

Cymbidium hybrids possess tremendous variation in floral color and shape. Flowers are produced on upright or pendulous sprays and can be quite small or quite large. Almost any color except blue is available at nurseries, garden centers, and even supermarkets. Due to the increase in pot-plant production, prices have become competitive, making a favorable marketplace for the consumer. Best of all, cymbidium flowers last longer than almost any other member of the orchid family, with individual flowers remaining fresh for eight to 10 weeks. Though the blooming peak is early spring, it is possible to begin the flower season in October and extend it through June. Indeed, the challenge for many hybridizers is to produce cymbidiums that flower during the summer so that growers can enjoy blooms year-round.



Today's new hybrids address both the disadvantages of growing cymbidiums and providing exciting new styles of flowers. The most common complaint has been that the plants tend to be too large. In answer to this, breeders have improved the quality of miniature cymbidiums and reduced the size of the foliage of standards, which are typically 3 to 4 feet tall. Bright new colors prevail – orange Cymbidium Mighty Sunsets (Wyalong Sunset x Mighty Mouse), red Cymbidium James Toya (Yowie Flame x Red Beauty) and polychromes (two or three blended colors), such as Cymbidium Kiri Te Kanawa (Tamatea x Mighty Mouse), delight collectors. Perhaps even more exciting is a new generation of miniatures, such as white Cymbidium Gladys Whitesell (Fifi x *parishii*) and red *Cymbidium* Phar Lap (Flame Hawk x *madidum*) that have commanded attention and awards. Advanced hybrids derived from the green Cymbidium Peter Pan (*ensifolium* x Miretta) extend the flowering season, add warmth tolerance and often impart fragrance.

**Temperature and Humidity**-Cymbidiums tolerate considerable temperature variation. Ideal day temperatures are 75°F to 80°F with night temperatures around 50°F to 55°F. Thrive to keep the heat from exceeding 90°F, but if it does, increase the humidity or invest in a swamp cooler and enclose the collection. A certain amount of warm weather can be dealt with or tolerated during the growing season, but this will often cause developing inflorescences to be deformed or drop their buds. During this time, keep day temperatures under 80 F and nights no lower than 40°F but under 60°F. Cymbidiums will tolerate a few degrees of frost, but temperatures 27°F and below cause damage to the inflorescences. A moderate differential in day/night temperatures of 20 degrees is desirable for the production of quality inflorescences. This can be difficult in areas like South Florida and Hawai'i, but there are many new warmth-tolerant hybrids available that grow and bloom in these climates.

Adjust humidity to the season. Provide more than 50 percent during the growing season and less during the flowering season.

**Light**-This is the single most important factor to ensure robust growth and flowers. Inadequate light or sunshine is the most common reason for failure of flowering-size plants to bloom. Provide as much light as possible without burning the leaves. The foliage should have a green, jade-color appearance rather than deep green. Except in rare cases, adequate light cannot be provided to plants grown in the home. Growth will be slower and uneven, and the constant temperature will inhibit inflorescence formation. In parts of the country where the weather in winter is extreme, grow the plants outside during spring and summer, and then move them indoors as late as possible at the first threat of frost. The spikes should be initiated by then and will progress fine under sufficient light, if kept cool. As a general rule, provide 5,000 to 6,000 foot-candles during the growing season and 2,000 to 3,000 foot-candles during the flowering season.

**Air Movement** -Breezy air movement reduces the occurrence of disease and invasion of insects. Hot drafts damage the buds. Where a space heater is operated at night, distance the buds from the hot air, and provide some humidity.

**Watering** -Water cymbidiums thoroughly to avoid the buildup of fertilizer salts. Cymbidiums are native to monsoon areas, so they require ample water during their summer growing season. This does not mean that during the cool flower season the plants go dormant. Pot size and coarseness of the mix dictate the frequency of watering. Water once a week, more frequently during warm weather, and less often in cool or wet weather. Over watering will cause roots to rot.

**Fertilizing**-The ideal fertilization program is dictated by the seasons. Provide a balanced formula (20-20-20) all year long, supplementing with nitrogen in summer, to speed growth. Plants in organic mixes, such as fir bark, require more frequent fertilizing during the growing season. Apply the fertilizer one-half strength every two weeks rather than once a month. Toward the end of the growing season (June), discontinue the nitrogen supplement to promote the initiation of inflorescences.

**Potting**-Novices are occasionally intimidated by the thought of repotting cymbidiums. Huge plants may fill a 14-inch tub and weigh 50 pounds. A few basic rules simplify the process and transform the challenge into a task that is within the grasp of every grower.

First, do not repot an entire collection at one time. Depending on how overgrown the plant is, the divisions may not bloom the following year. Second, repot them immediately after flowering ceases. This allows the plant sufficient time to develop new growths, form strong pseudobulbs and initiate flower spikes before the next bloom season.

Mix formulas vary from grower to grower. California hobbyists rely on fir bark. One recipe: equal parts fine and medium grade bark with about 15 percent perlite. A porous mix is best as it is always easier to add water than it is to take it away from a sodden medium.

Cymbidium divisions should be a minimum of two to three green bulbs with growths. This size should bloom the next season, providing there is a healthy root system.

Start new plants from turgid backbulbs. Remove all leaves and roots and set in a cool spot until new growth begins to show, then pot. Cut roots on strong divisions back to 6 inches and remove dead roots. Tap down the mix fairly tightly. The size of the pot should accommodate three years' growth. Provide typical cymbidium conditions once repotting is complete. If divisions are not robust, keep them on the drier side with a little more warmth for a few months.

Reflecting on 100 years of cymbidium growing suggests a bright future. In the approaching century, orchid enthusiasts will have available to them many bright new styles of cymbidiums. Improved plant habit, greater floriferousness and a rainbow of colors will result in compact plants covered with bright flowers lasting many months – truly a living bouquet.

### **Cymbidiums in the Garden**

Cymbidiums make wonderful plants for the home garden in mild frost-free areas. Shelter derived from trees often provides the perfect amount of shading. Do not permit surrounding landscape plants to encroach on the orchids, blocking light or preventing adequate air movement. Check the tree canopy every few weeks to be sure that there is still ample light. Branches will have to be thinned periodically.

Cultivate cymbidiums in mounded beds where the soil has been amended in order to provide proper drainage. Spread bait where snails and slugs pose a threat. Protection against frost may be necessary. Material put over the plants should not touch the leaves. With a little extra care, cymbidiums are an attractive as well as exotic addition to the appropriate garden setting.

### **Propagating Cymbidiums from Backbulbs**

When repotting cymbidiums, the problem of what to do when the backbulb arises. These brown, leafless bulbs are not dead. Dormant vegetative growing points (called "eyes") on the side of each bulb are capable of initiating new growth. Remove a bulb from the clump with a sterile knife or by applying a twisting motion until the bulb breaks free. Strip off the old leaf sheaths for a clean appearance, taking care not to damage any of the eyes. Label each bulb. Pot a single bulb in a small pot or, if there are several, plant them in a flat. Keep moist and protect from direct sun. Roots will emerge soon after growth begins on the back bulbs. When the new leaves are 6 to 8 inches tall, pot each bulb in a 6-inch pot. Water at the same frequency and fertilize at the same intervals as for mature cymbidiums. Once potted, the bulbs will continue to grow and usually flower within two to three years while still in the original pot.

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