

BASIC CYMBIDIUM CULTURE

Many people consider that orchids ARE cymbidiums - probably the most widely cultivated of orchids. In the southern states they are the easiest to grow and flower, readily available and inexpensive. For us in Brisbane the standards can be difficult to flower even though they grow well. The species originate in the Himalayan region of northern India at fairly high altitudes with warm days and cool nights during summer and dry, cool conditions in winter. Hybrids inherit similar preferences.

Ideally, the temperature range should be 18-27c for growing and 13-22c for flowering. A shade house permits greater control over temperature and light, simulating the cymbidium's natural habitat. However, cymbidiums don't require expensive housing and can be grown successfully even in the shade of a peach, plum or apricot tree (on the northern side). It is almost impossible to kill cymbidiums. However, they will not grow successfully on a veranda or in the shade of a heavily foliated tree as plants will not get enough light and the leaves will become weak and floppy. Protection from heavy frosts is necessary.

There are three general types:

Over 90mm
largest plants
largest flowers
flower August/September

Under 90 Over 60mm & Under 60mm
smallest flowers
usually smaller plants
many more flowers
early flowering
like slightly warmer conditions

Growing requirements are similar for the three types.

Needs for successful cultivation

- .maximum sunlight
- .good air circulation
- .ample water
- .cool summer nights

Air circulation

Good air circulation is essential for good plant growth, supplying oxygen and carbon dioxide and promoting the quick drying off of leaves thus preventing fungal, bacterial and red spider problems. The air surrounding the orchids must be moist. Bad ventilation causes poor growth and immature buds to yellow and drop off.

Shade house

A shade house gives better control over light, air movement, watering and pests. It should be where the cymbidiums will receive the most sunlit hours during the whole day with no shade from a house, shed, fences, trees or anything else. If a choice has to be made an aspect receiving the most morning sun is best. Allow for good air

movement. Do not make your shadehouse too small, allow for future expansion. Galvanised water pipe is best for the frame work of your shade house. Timber will rot with the continuous moisture. Height should be at least 8ft (2.4 metres) and a gable will allow for future plastic cladding to be added to create a flowering area. Shadecloth should be rated at either 50 or 70 per cent of black, green or white.

Floor cover

In the summer months additional humidity must be provided. Lay down black plastic sheeting and cover with moisture holding materials such as wood chips, gravel or bark. Beside suppressing weeds, this will look neater and retain moisture, creating humidity.

Benching

It is advisable to grow cymbidiums on benches to avoid slugs, snails, ants, insect pests and fungal disease. Besides preventing back problems for the grower and giving easier access to the plants, benches also provide additional ventilation and assist with drainage of pots.

The ideal bench would be made of galvanized water pipe and galvanized 50mm mesh - strong enough to carry the weight of a good number of heavy pots. A width of no more than 3ft would enable the grower to reach any pot. The bench should not be too high so that the humidity from the ground cover is not lost but at the same time it is still possible to clean underneath.

Spacing

Plants should be grouped on benches by pot size. Small pots in between larger ones will not receive their fair share of water, fertilisers and light, so keep the same size pots together. If pots are also kept in lines it will facilitate watering, fertilising, spraying and also air movement. Do not overcrowd. Allow one pot space between all pots. For plants to receive maximum light, benches should ideally run north to south. Plants may also be hung in wire baskets from the roof of the shadehouse, but do not overdo this as lower plants will lose light.

Compost

There are dozens of recipes for compost. Beginners and growers with fairly small collections would be better advised to use a commercial mix throughout their collection. All pots should contain the same mix because they are all growing under the same conditions and watering, fertilising, etc. can then be standardised. If you do mix your own compost keep accurate records of the recipe for future reference

Compost should:

- be slightly acid
- be open & drain freely
- remain moist but not wet when conditions are hot & dry
- remain open & free draining
- not sour for at least 3 years
- not be toxic to roots

The ingredients for the compost should be readily available and could include some of the following-

- pine bark hardwood shavings
- tan bark buzzer chips

peat moss	washed sand
shellgrit	rice hulls
gravel	peanut shells
scoria	charcoal
oak leaves	sheoak needles
river pebbles	marble chips
isolite	

Some of these do not produce any food for the plant and this would have to be considered in your fertilising program. If using charcoal ensure that it has not come from timber that has been treated with preservatives.

An organic compost, by a slow decaying process, produces plant food on which the orchid could feed. If using animal manures, be aware that fresh fowl manure will burn the roots; cow manure should be old and broken down into chunks ; sheep manure should also be old and will need gravel to balance its fineness as it breaks down. In our own collection, we are now using straight pine bark which is cured with blood and bone and stood for 3 to 4 weeks.

I would refer growers to Australian Orchid Growing, Volume One - Cymbidiums, page 19, where a selection of compost recipes is published.

Watering

Most plant losses are caused by watering problems, however no one can tell another grower how often he should be watering. It must be a personal decision, dictated by many factors, such as

- type of compost used
- its condition
- amount of sun & shade
- size of pot
- air circulation
- prevailing weather conditions

With experience a grower learns to judge from the weight of the pot whether it is dry and in need of water. Alternatively, by poking into the compost with a finger, it can be judged if it is dry or moist, remembering that deeper in the pot will probably be even moister. But do remember the golden rule of watering - IF IN DOUBT, DON'T WATER. Instead the foliage and ground surface could be lightly misted.

Sprinkler systems do not always distribute water equally, so it pays to hand water twice a week in summer. You can get to know your plants that way. Water over the full surface of the compost and until the water runs freely from the drainage holes. Watering should leach out the fertiliser salts that accumulate in the bottom of the pot, damaging the tender young roots. Root loss and bulb shrivelling are caused more by over watering than anything else. Never stand pots in saucers of water. Do not, however, allow plants to dry out completely as the root tips will seal off and it is difficult to get them growing again.

Cymbidiums love overhead watering during summer and early autumn, but never in the middle of the day on hot days or the leaves will burn and you may cause rot. It is

best to overhead water late in the afternoon or early evening when the sun has gone from the plants. Such watering washes dust and dirt from the leaves and allows the plant to take in moisture through the leaves. Do not overhead water or mist in cold or wet winter weather. Water early in the morning in winter so plants can dry out. In winter it is better to under rather than over water.

Cool summer night temperatures

As mentioned earlier this is an essential requirement for flower initiation. There needs to be a temperature drop to around 13 degrees on summer nights. This does not happen naturally in our climate, but may be brought about for the plants by sprinkling or misting over the whole plant for at least 10 minutes in the early evening when the sun has left the plants.

Fertilising

Plants growing in pots cannot be expected to flower, much less flower every year, if not fed. When the plants are actively growing, from September through to mid December, they must have an NPK fertiliser high in nitrogen to stimulate growth. From mid December, when flower spikes initiate, flowering should be encouraged by the use of a fertiliser high in phosphorous and potash. These assist in the formation of flower spikes, ensuring that the flowers will be bigger and stronger and firm up the leaves thus avoiding soft growth. Fortnightly fertilising using half recommended strength is advisable. You may prefer to fertilise at quarter strength every week. Do not believe, however, that doubling the dose of fertiliser will give twice the benefits. The results will be just the opposite. It is important to always give the plants a good watering BEFORE fertilizing, otherwise the roots will burn.

In early September and again in Autumn, a dose of iron chelates is beneficial. Also, each month during Summer, apply magnesium sulphate (Epsom salts), one teaspoonful spread around the top of the pot. Some growers use slow release fertilizers, but in our experience you do not have any control over the amount of actual food that is released to the plant at one time and roots can be burned by a flush of fertilizer suddenly released.

Cymbidiums need trace elements, particularly iron, manganese, molybdenum and boron. Commercial fertilizers usually list the contents on the packaging. Again I would refer you to Australian Orchid Growing, Volume No. 1- Cymbidiums for fertilizer programs.

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