

How to Care For Dendrobium Orchids



Den Warringah

Dendrobiums, as well as forming one of the biggest of the orchid groups, are also the most useful flower producers in the orchid world. Both the plants and the blooms vary greatly in shape and size, while the colours of the blooms range from white through flushes to yellow, rose and to the deepest possible crimson-purple.

Many Dendrobium types produce blooms, which last for weeks, 6 to 8 weeks being common. Some Dendrobiums are quite deciduous and others are evergreen. The former usually has thin leaves, while those on evergreen types are normally tough and leathery.

Dendrobiums have a definite resting period, at the end of the growth for a season, and this dormant condition is indicated by the non-production of new leaves at the apex of the bulb or cane. At this stage most of the plants should be gradually moved from a high temperature to an intermediate or even cool one, where a drier atmosphere and a reduction in the water supply will see the growths ripen and plump up.

At this stage, the leaves will fall from deciduous species. Evergreen Dendrobiums should not receive such extreme treatment either in temperature or lack of moisture until the flower buds are prominent. Once the buds are noticeable start the resting period, giving water only when signs of shriveling are apparent. A few species like Phalaenopsis, which flower soon after the completion of growth, should never be allowed to become quite dry.

Potting

The rhizomes of Dendrobiums extend slowly and do not take up much room and because of this it is not necessary to make much provision for future growth when potting these plants. Potting or re-mounting should never be carried out unless new growths are commencing to push out roots, and newly potted plants should be made firm by means of stakes and ties.

Species having a pendulous habit should be grown in wooden baskets. All members of the Nobile group can be cultivated in pots as they have an erect habit, while the dwarf types are equally at home in pots or baskets.

Dendrobium Phalaenopsis and allied species do well in wooden containers, the hollow limb of a dead tree is very suitable. Cut the limb into suitable lengths and place compost in the pipe and seal off the bottom with a small sized gutter guard. Then suspend the container by means of wire threaded through holes bored in the timber. This type of potting allows the maximum amount of drainage and in addition, the container does not get cold in the winter.



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Fertilizing

Dendrobiums require regular applications of weak liquid animal manures, or any of the soluble inorganic nutrients. However, growers should be careful not to overfeed. It has been recorded where one grower who put a handful of fertilizer on a plant and then stood back waiting for it to quickly grow up past his head, instead he had to bend down and pick up a dead plant.

Remember-a weak solution, little and often is better than an overdose which will only upset the balance of growing conditions.

Propagating

There are three methods of propagating Dendrobiums; one is by seed another by division and the third is by vegetative reproduction. Some of the plants will form vegetative buds on the upper nodes of the stems, and these new growths are referred to as aerals. When a plant produces an aerial it is always wise to allow the growth to be mature before being separated. Usually a second growth should be present before removing the growth.

The third method of Dendrobium propagation by division, allows a greater degree of latitude than in other orchids. A cut can be made immediately behind a ripened leading bulb, either partly or right through, and if this is done about three months after the plant has flowered the back bulbs will break into growth either by way of aerals or from a dormant basal eye.



These plants are repotted in the usual manner as soon as roots begin showing out from the new growth. It is essential at this stage to exercise care in watering, for too much liquid will very quickly damp off the soft, new growth.

Den John's Charm

Pests

One group of insects consists of the biting and chewing type such as grasshoppers, cockroaches, wood lice, pumpkin beetles etc. The others have long slender mouthparts, which are used for piercing and sucking. In this second group are scale insects, aphids, mites, and thrip.

Naturally, if the foliage and flowers of the plant are covered with a chemical, which is poisonous if eaten, chewing insects attacking it will be killed. However, piercing and sucking insects will escape, for they are feeding in a safe area, not on the poison-bearing surface of the foliage, plant stems or blooms. These sucking pests have to be attacked with insecticides, which will kill when applied externally.

This is the reason for the two main types of pesticides, stomach poisons and contact poisons.

A great many people consider insect control difficult, but in most cases this is not true, provided regular preventative measures are carried out, the pesticide is an effective one.

Remember that prevention is better than cure.

The grower also has to provide suitable composts, the correct spacing for their plants and to study location in relation to light. Unhealthy plants can easily contaminate ones nearby, and there should be no hesitation about their proper destruction.

A big percentage of orchid plant trouble is brought about by environmental and nutritional disorders. This underlines the vital importance of knowing the best growing conditions for the various groups of Dendrobiums. It is often virtually impossible for the beginner to distinguish actual diseases from conditions brought about by incorrect conditions and improper nutrition. Always consult an authority when there is doubt as to the cause of trouble.



Den lindleyi

MISTAKES IN CARE, PESTS AND DISEASES

Orchids are really quite tough and resilient but they are not immune to attack by insects, fungi, viruses or bacteria. In addition, mistakes in care may make them sick and unsightly. Optimal care is always the best preventive measure.

Taking preventive measures

The best way to ensure the good health of your orchids is to learn about the requirements of each particular species and make sure that you make 'good hygiene' your normal practice.

If you have to turn up the heating, make sure that you also increase humidity; this will prevent attack by insects.

Remove all decaying, dried up or yellow leaves.

Always replace compost that shows a layer of white fungus.

Place affected plants in quarantine immediately so that will not infect others.

All knives and other cutting tools should be disinfected.

Cut surfaces of plant, or injuries, should be disinfected as soon as possible.

Plant containers that are to be reused should be scrubbed in hot soapy and disinfected water and rinsed thoroughly in clear water.



Problem:	Symptoms:	Cause:	Remedy:
Crippled growth - cessation of growth	bad smell, algal growth, decaying roots	a position that is too dark; more rarely lack of nutrients	cut off decayed roots, disinfect the plant, and repot the plant in fresh medium
Sunburn	at first yellowish-white, later brownish, spots on the underside of leaves	plants too close to the windowpane; too sunny a position for orchids that do not like too much sunlight; not enough shade; spraying the plant in sunlight	protect the plants from too much sunlight
Heat shock	irregularly formed, but clearly defined, yellowish, depressed spots on the upper-and undersides of leaves. The spots later turn brown and dry out	collapse of leaf tissue due to too much heat in the case of a damaged root system or a position that is too dry	stand the plant in a cooler, moister but slightly shadier position
Brown leaf spots;	dying leaves	incorrect care	remove dead leaves and dust the points where they were attached with an antiseptic powder
Concertina growth	the leaves do not unfold properly	damaged roots because of "wet feet" (water logging). This often occurs when compost does not drain properly	cut off damaged roots, disinfect with powered fungicide and transfer to fresh compost
Dry, brown leaf tips		air too dry; too high a concentration of salts in the compost through over fertilizing or using water that contains too much lime; water logging	increase humidity and rinse the compost under running water. Stop fertilizing for the time being. Repot the plant in the spring
Light green or marbled leaves		magnesium or iron deficiency. Often occurs in Cymbidium, Zygopetalum and Paphiopedilum	a magnesium preparation, or add a combination of iron and magnesium to the water
Reluctance to flower		not taking account of the proper rest phases of the plant; in some species a lack of sufficient night-time drop in temperature; a position that is too warm; fertilizers containing too much nitrogen	study the plant's growth cycle. The following year, care for the plant so that the proper flowering time is observed, this indicates the main flowering season of a genus, as the flowering time depends greatly on care and position

The pests that affect orchids are insects of the biting and sucking kind, as well as their larvae, and spiders that suck sap or eat leaves and roots. This causes weakening or damage to the point where it will die if nothing is done.

Aphids will only occur on young, soft shoots of orchids. These 2-3-mm long insects establish themselves in dense colonies at the tips of shoots or around buds	sticky leaves (honeydew). Deformation of shoots.	draughts, open windows, or sitting in very dry, warm air	remove insects by hand and spray the plant with a protection agent. Repeat the procedure again in eight to ten days
Scale insects hide, along with their eggs, under a whitish-yellow to brownish layer of wax and are often discovered too late. The larvae are minute, move very quickly and are generally not noticed at all. The plants most at risk are Cattleya, Cymbidium, Dendrobium and Phalaenopsis. The pests will tend to colonize leaves and pseudobulbs.	secretion of honeydew; formation of sooty mould; yellow spots on leaves drooping leaves	air too dry	increase humidity immediately. Scratch off scale with your fingernails or with a thin piece of wire. Wipe down plants with a lukewarm solution of soapy water or with a cotton bud dipped in equal amounts of water and metholated spirits
Mealy bugs belong in the same category as scale insects. Their favourite positions are leaf axils, the undersides of leaves and on bulbs.	whitish, woolly or cotton wool like waxy excretions; crippled growth of plant.	air too dry	paint the affected area with equal amounts of metholated spirits and water, increase humidity. If necessary, employ plant protection spray
Red spider mite is the nightmare of all orchid growers. They tend to like Cymbidium, Dendrobium, Paphiopedilum, Phalaenopsis and Bulbophyllum.	silvery, mottled leaves which turn yellow later on	dry air	make sure the humidity is increased. Use the plastic bag trick. Twice a week spray the plant with lukewarm water during the morning. Spray with a special plant spray intended to combat spider mites
Thrips are 1-2-mm long, brownish black insect has two pairs of folded, black and white wings. The almost invisible larvae tend to hide underneath leaves. Thrips damage the plant by sucking the sap from leaves, flowerbuds or flowers.	brownish spots on crippled flowers; deformed buds; the leaves look silvery, caused by air pockets in the puncture holes; brownish marks underneath the leaves; often black, shiny spots of excrement	dry, heated air	spray with a suitable plant protection spray. Do not forget to spray underneath the leaves, increase the humidity immediately
Root mites attack weakened, sick plants and eat the roots from the inside out.	crippled growth of the buds, new shoots and leaf stalks, eaten roots		spray with an acaricide and remove all affected roots, repot in fresh compost
Slugs and snails often appear as night time visitors in free standing greenhouses. They are attracted by the humid warmth. They can inflict a great deal of damage with huge appetites.	eaten parts of plants; holes in leaves and bulbs; slime tracks	carried in on orchids that have stood outside during the summer months, or gardens adjacent to an orchid house	collect them, either early in the morning or in the evening. Sprinkle slug baits
Rotting flowers is caused by the harmful fungus Botrytis that also attacks strawberries in gardens.	spotty flowers	too much nitrogen in fertilizers; draughts; leaves, which remain wet for too long, infection from others	remove the affected parts of plant. Disinfect cut surfaces with a fungicide, spray the plant with fungicide

Fusarium spores are always present and may be transported along with dust. They come from the ground to settle on the surface of the compost.	spots on leaves, crippled growth, decayed spots	"cold, wet feet"; too much fertilizer containing nitrogen; bad ventilation	remove diseased parts of the plant. Disinfect cut surfaces of the plant with fungicide. Dip the entire plant, including roots, in a fungicide and spray thoroughly with the same, then add fresh compost. Isolate the plant for the time being. Very badly infested plants will often not recover at all. As a natural measure, try spraying the entire plant with a garlic tea.
Cercospora is a harmful fungus.	spotty leaves	weakening of the plant through mistakes in care	as for one above
Black rot is caused by Pythium and other species of fungi.	weeping wounds along the edges of leaves and new shoots (soft rot); reddish spots on leaves; blackish-brown discoloration of the neck of the root; decaying patches on bulbs	humidity too high; water logging; low temperatures	immediately remove all diseased parts of the plant. Use fungicide on all cut surfaces, immerses the entire plant in fungicide and repot in fresh compost

Bacteria

These are, of course, invisible to the naked eye and by the time symptoms are observed it is usually too late to do anything.

Fungal diseases

In most cases, fungi are parasites, which attack already, weakened plants and they will only appear if the orchid has been subjected too much stress through dry air, lack of light, sunburn or other outside influences. Fungi will often colonize the holes bitten in plants by other pests. Orchids can be infested with rust and moulds. Bad ventilation encourages infestation.

The Plastic Bag Trick

The easiest, cheapest and most harmless way to get rid of spider mite is to create a "sauna". Water infested plants well, then pour away any excess water. Place the pot inside a large transparent plastic bag, tie up the top and leave the plant for two days.



Garlic Tea

Crush one garlic clove, add it to 1 litre of water and bring to the boil. Allow it to cool and use as a preventive measure once a week by spraying it on plants or watering sick plants with the brew. Garlic contains fungicidal substances and antibacterial compounds, which are still effective, even when extremely diluted.

These notes have been used at our Cultural and New Grower's Meetings. They are from various sources and we thank the authors. All articles are supplied in good faith and the Bribie Island Orchid Society and its members will not be held responsible for any loss or damage.