

ORCHID

The orchids are considered to be the world's most exotic and fascinating flower due to their brilliant colours, delightful appearance, myriad sizes, shapes, forms and long lasting qualities. Nearly 1300 species of orchids, spread over 140 genera, are reported from our country. Out of which 800 species are distributed in NEH region. Commercial production of cymbidiums for exports has been initiated in the farms in Sikkim and Arunachal Pradesh in the North Eastern Region.



Varieties! Species

Dendrobium nobile, Dendrobium densiflorum, Dendrobium moschatum Vanda coerulea, Vanda tessellata, Paphiopedilum insigne, Cymbidium aloifolium, C. cristata etc.

Growing environment

For growing temperate orchids, cool and humid micro-climate coupled with plenty of aeration is beneficial. Such conditions are possible under shade net houses and polyhouses with good cross ventilation. The roof that is raised to a height of about 8 ft comprises of double layer shade net of 50 % and 25 % so as to manipulate the amount of light depending on the ambient light conditions. Tropical orchids prefer a warm and humid atmosphere.

Growing medium

Growing media should be durable, sufficiently porous and acidic in nature with a pH of 5.5 to 6.5. Media contains charcoal, brick pieces, moss grass, leaf mould etc. However, a mixture of peat, perlite and bark is recommended in controlled greenhouse condition.

Propagation

Orchids are propagated by seeds, division of clumps and through tissue culture. Cymbidiums can easily be multiplied by dividing clumps after the plants attain a reasonable size. While making division, one should make sure that each piece of the plant should have two new growth and two back bulbs. Tissue culture technique can be used to multiply orchids in large number with a short period of time.

Transplanting

The most commonly used pots are earthen or plastic pots with sufficient number of holes. One year old plant (6" size) should be planted in 4" pot. Potting should be done during active growth phase i.e. during April to June. Crocks or brick pieces are placed at the bottom of the pot to assist extra drainage. The plants are placed centrally and covered with sterilized media. Healthy plants, as indicated by firmness of their roots, are to be repotted in to the next size pots.

Water requirement

Cymbidium prefers more water and to be constantly moist, but not wet. Water plants every day during summer months, during rainy and winter season watering may be done twice a week.

Plant protection

Scales: The young and mature scales suck the sap from the leaves, petioles and shoots resulting in stunted growth and drying of shoots in case of severe attack.

Selection of scale free planting material prevents pest infestation. Application of carbofuron 5-7g/pot and spraying of Mamathion (50EC) + Dimethoate (30EC) 1ml or Chlorpyrifos (20EC) followed by pongamia or neem cake oil 1 Oml/l provides effective control.

Mites: Red coloured, minute insects, which suck the plant juice, leaving them, speckled with white. In heavy infestations, webbing appears on the plants. Plants usually become stunt and loose leaves. The buds and flowers, when attacked, turn dark when they open, with mottle spots on it. Scrub and rinse the foliage with warm water to break up webs. Spray Abamectin (1.9EC) 0.5ml/l to control the mites during heavy infestation.

Snails: Most serious pests of orchids. They feed on all parts of the plants, particularly the tender organs. Hand picking and killing by drooping snails in 5% salt solution will reduce population. Sprinkling of salt and crystals in the path or around pots kill snails as they come in contact. Snails are killed by using Metaldehyde (3%).

Harvesting and yield

The spikes should be harvested when all the flowers are open. Standard spike should not contain less than 8 flowers. Dendrobium orchids are harvested at 75% bloom stage. In Cattleya, flowers are harvested 3-5 days after split. The plant will produce only one spike at the first harvest, which gradually increases up to three in the subsequent harvest.