

Orchids

Some orchids adapt fairly well to being grown in the home, especially *Phalaenopsis* species, the moth orchid, the showy *Cattleya* species and *Dendrobium* species. Growing orchids is somewhat different than growing houseplants, but it can be successfully accomplished following a few basic tips.

Selecting an Orchid

The orchids described below are recommended for growing in the home based on their adaptability, ease of growing, availability and production of beautiful flowers. It is important to purchase flowering size plants because it can take up to five years for a seedling to flower. Select an orchid based on the growing conditions in your home, since each type of orchid has different cultural requirements.

Phalaenopsis Species: Commonly known as moth orchids, phalaenopsis are one of the most elegant orchids for indoor growing. They have long arching sprays of colorful flowers that remain fresh for several months. Flowering occurs in winter or early spring. They require less light than cattleyas and adapt well to conditions found in most homes.

Cattleya Species: These orchids are the most familiar, being known for their use in corsages and for having a flower that can last from two to six weeks. They generally flower only once per year during the spring or fall. They require twice the amount of light of moth orchids to perform well in the home.

Dendrobium Species: These beautiful orchids produce long, graceful sprays of flowers that are typically white, lavender or a combination of the two during the fall and winter. Flowers may remain open three to four weeks. The general culture of

dendrobium is discussed here, although there are many different types, each having slightly different cultural requirements.

General Culture

Temperature: Orchids require a temperature similar to other houseplants and must be protected from cold weather. The minimum night temperature recommended for phalaenopsis is 65 °F; cattleya, 60 °F; and dendrobium, 52 °F. Daytime temperatures that are 10 to 15 degrees warmer are best. Avoid placing your plants near a window during extremely cold weather.

Light: Most orchids require partial shade for best flowering and growth. A southern exposure is usually the best exposure for providing bright, filtered light. Light levels that are too low are one of the main reasons orchids can fail to flower and are evident by leaves that are a very dark green.

Phalaenopsis: These orchids are one of the most adaptable to indoor light conditions, thriving under low light levels (1500 to 1700 foot candles). They perform best in a bright window with little or no direct sun, such as an east window. Artificial light can be used as a sole source of light for phalaenopsis orchids or to supplement natural light. Four 4-foot long fluorescent tubes placed in one fixture that is 6 to 12 inches over the leaves should be satisfactory. Two shop light fixtures with cool-white bulbs are fine. Operate the bulbs for 12 to 16 hours per day, following a natural day length.

Cattleya & Dendrobium: These orchids grow best with bright light to some sun, but no direct midday sun. They need twice the amount of light required by phalaenopsis and should be placed in slightly shaded south (a sheer curtain) or west windows.

Watering: One of the fastest ways to kill an orchid is to let it sit in a waterlogged pot. The frequency of watering depends on the type of orchid, media, light conditions, container characteristics and temperature. In general, when orchids are actively growing, water once per week and allow them to dry slightly before the next watering. At each watering, apply enough water so that some drains from the bottom of the pot. More frequent watering may be required for plants in clay or small pots and those growing in open bark mixes. In these cases, watering twice per week is usually satisfactory. Orchids rest after flowering; watering should be reduced at this time.

Water is especially critical for phalaenopsis, because they do not have organs (pseudobulbs) for water storage. Do not let phalaenopsis completely dry out. Water thoroughly, and do not water again until nearly dry throughout the container. Do not allow water to remain on the leaves or in the leaf axils, as this may readily lead to disease and death.

Fertilizing: Orchids require regular fertilization to grow and flower properly, but too much fertilizer can quickly damage plants. Water-soluble types of fertilizer specifically formulated for orchids are available at most garden centers and are easy to use. Orchids growing in bark require fertilizer with a higher ratio of nitrogen, such as 30-10-10 or 15-5-5. Mounted orchids and those not planted in bark grow well with even formula fertilizer ratios, such as 20-20-20. A "bloom-booster" type formulation can be used in the autumn that has a higher phosphorus formulation (the middle number), such as 10-30-20.

Apply soluble fertilizers monthly, according to the rates recommended on the label. A dilute fertilizer solution can be used to water plants weekly during the growing season. Each month, use plain water to rinse any accumulated fertilizer salts out of the pot.

After flowering, when the foliage growth stops, reduce water and fertilizer applications until new leaf production starts again.

Humidity: Adequate moisture in the air is very important for orchids, and most orchids require 40 to 60 percent humidity throughout the year. In most

homes the humidity is too low for orchids, and it must be supplemented. High humidity is also a good environment for bacteria and fungi to develop, so sufficient air movement around the plants is necessary.

Growing Media & Container: Orchids are commonly killed by being planted in soil. Most orchids are epiphytes and require very different growing media than houseplants. Epiphytes have thick fleshy roots used to attach themselves to trees or bark and to absorb water and nutrients. They grow best in soilless mixtures or attached to pieces of bark or cork. One of the best ways to kill an epiphytic orchid is to plant it in soil. They require a growing media with extremely good aeration and drainage. Commercially prepared orchid potting mixes are available or a mixture can be prepared containing chopped tree fern fiber, volcanic stone, charcoal, a little peat, fir bark or combinations of these.

The type of container can be either plastic or clay, although clay is often preferred due to its excellent porosity. If using clay containers, enlarge the drainage hole or make additional holes on the sides (near the bottom) of the pot. Watering and fertilizing practices may have to be adjusted, depending on the type of container and media selected.

Problems

Orchids are susceptible to a number of insect and disease problems. Common insect pests include mealybugs, spider mites, scales and thrips. Scales are usually attached to the underside of the leaves, and heavily infested plants should be discarded. Physically removing the scales and then controlling the immature stages with chemical sprays may help lightly infested plants. Snails and slugs can feed on buds, blossoms, leaves and tender stems.

Diseases that are commonly a problem on orchids include leaf spots, petal blight, bacterial soft rot and many different viruses. Another common problem is the failure to flower, which is typically due to poor growing conditions, especially inadequate light and/or fertilizer.

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