

This varied group of plants comes mostly from tropical or subtropical latitudes but from many types of environments. Some varieties are found growing on the bark of rainforest giants; others live as ground-dwellers in mountain forests. Many people think of orchids as being impossibly fussy, but in fact a number of species thrive as houseplants. Choose the proper variety, meet its cultural requirements, and it will reward you with years of exotic blooms.

Houseplant orchids can be classed as warm-tolerant (*Oncidium* Alliance) or cool-tolerant (*Odontoglossum* Alliance) types. The warm-weather group includes *Oncidium*, *Cattleya* (the familiar corsage orchids), *Phalaenopsis* (Moth Orchid), *Dendrobium*, and some hybrids. These orchids prefer a temperature range of 55 - 60°F at night and 80 - 85° during the day. Temperatures to 90 - 100° are tolerated if humidity and air movement are increased as the temperature increases. They dislike temperatures much below 55°.

The cool-weather group includes *Odontoglossum* (Tiger Orchid), *Miltonia* (Pansy Orchid), *Paphiopedilum* (Slipper Orchid), *Cymbidium*, *Vuylstekeara*, *Pleione*, and others. These orchids prefer a temperature range of 55 - 58°F at night and 75 - 80° during the day. Higher day temperatures may be tolerated if the plant is kept misted and if nights are kept cool.

**Light levels** can be from bright filtered light to almost full direct sun. Most warm weather orchids will thrive with one to several hours of sun a day. Generally thicker leafed plants, such as “mule ear” and “equitant” *Oncidium*s, can stand more light. Cool weather orchids prefer indirect, but bright, light. In the home, East, South, or West windows are ideal for warm-weather types, and East windows or shaded South windows for cool-weather types. Many types will grow under artificial light. Four fluorescent tubes 6 to 12 inches over the plants are necessary for proper growth. Metal halide and sodium vapor bulbs also provide sufficient light without needing to be so close to the plant. In a greenhouse, 20% to 60% shade is required, or about 2000 to 6000 footcandles.

**Water requirements** vary with the type of plant. Generally, plants with large fleshy roots and/or leaves need less frequent watering than thin leafed and/or thin rooted plants. Watering should be thorough. Most orchids require perfect drainage coupled with watering as soon as the planting medium starts to dry out—as often as every two to seven days, depending on weather, pot size, and type of potting medium.

**Humidity** should be between 30% to 60% for *Oncidium*s, 40% to 80% for *Odontoglossum*s. In the home, placing the plants on trays of moist pebbles, without the pot standing in water, is ideal. Misting the plants in the morning helps increase humidity. Misting is usually not recommended for *Paphiopedilum*s, *Miltonia*s, or fleshy leaved *Oncidium*s. In contrast, *Dendrobium*s, *Epidendrum*s, *Pleione*s, and *Cymbidium*s often appreciate a twice-a-day misting. Most greenhouses provide adequate humidity for warm-weather orchids. For cool-weather orchids, fogging the air or damping the ground can increase humidity while cooling the air. Although orchids like humidity, good air circulation is also a must.

**FERTILIZER** SHOULD BE APPLIED REGULARLY WHILE PLANTS ARE ACTIVELY GROWING.

Twice a month applications of 30-10-10 type formulations are ideal for plants in a bark-based (epiphytic) potting medium. A 20-20-20 type formulation should be used for plants growing in other media or on bark slabs. If light levels and growth rates are low, once a month applications may be sufficient. Some growers use a high phosphorus, 10-30-20 type formulation “bloom booster” as plants approach blooming.

ALMOST ALL ORCHID VARIETIES REQUIRE A REST OR **DORMANT PERIOD IN THE WINTER.**

During this time, most varieties prefer no fertilizing and minimal water (only enough to keep the potting medium from drying completely). However, most species like more light than during their growing season. Supplementing our short winter days with bright lights to bring the total “daylight” to 10-15 hours can improve these plants’ long-term health and flowering. Many, but not all, varieties like cooler temperatures at this time.

**Potting and dividing** is best done when new growth begins from the base of the plant, which is usually in the spring. Most orchids like being potbound, so do not repot until roots start overflowing the container, and then use a pot only a little larger than the previous one. A fine potting medium is usually used with fine rooted plants, and coarser mixes with large rooted plants, the standard size being medium bark. Usually one-quarter to one-third of the bottom of the pot is drainage material, either broken crock shards, rocks, or Styrofoam “peanuts”. The plant should be positioned in the pot so that the newest growth(s) are farthest away from the edge of the pot. Spread the roots over a cone of potting medium, and fill in around the roots with potting medium to the junction of the roots and the plant. Firm the medium well around the roots by applying pressure. Keep humidity high, and the potting medium drier, until new roots form. A vitamin B-1 compound may help establish newly potted plants.

“Equitant” and “Mule Ear” Oncidiums, and other fleshy leaved and/or large rooted orchids, can be grown on slabs of cork bark or tree fern, or in pots of coarse, well drained medium, like charcoal.

Several of the easiest orchids for beginners are: *Odontoglossum*, *Paphiopedilum*, and *Cymbidium* (cool weather types) and *Phalaenopsis* (a warm weather type). The following page lists some good houseplant orchid species, whether they are warm-tolerant or cool-tolerant, and any special cultural requirements they have. Where needs are not specified, give an orchid the standard care described above.

### ORCHID SPECIES

<b>Cattleya</b>	Warm-tolerant type. Let potting medium dry between waterings.
<b>*Cymbidium</b>	Cool-tolerant type. Short autumn dormant period. Likes extra misting.
<b>Dendrobium</b>	Warm-tolerant type. Resents being disturbed. Likes extra misting.
<b>Epidendrum</b>	Cool-tolerant type. Likes extra misting.
<b>Miltonia</b>	Cool-tolerant type. Do not mist. In winter dormant period, keep dryish and in lower light.
<b>Oncidium</b>	Warm-tolerant type. Varieties with leathery leaves, large roots tolerate more sun, prefer to dry out between waterings. Other types prefer less light, more moisture.
<b>*Odontoglossum</b>	Cool-tolerant type. Easy-care variety.
<b>*Paphiopedilum</b>	Cool-tolerant type. Do not mist. No winter dormant period.
<b>*Phalaenopsis</b>	Warm-tolerant type. No winter dormant period. Likes filtered light year-round.
<b>Pleione</b>	Cool-tolerant type. Likes moisture and low temperatures- almost to freezing—in winter dormant period. Mist twice daily in summer.
<b>Vanda</b>	Warm-tolerant type. Tolerates full sun if not too hot.
<b>Vuylstekeara</b>	Cool-tolerant type.
<b>Zygopetalum</b>	Cool-tolerant type. Keep evenly moist.

**\* Indicates good variety for beginner**

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