



ORCHIDS



Tips for the Home Gardener

For centuries, gardeners have been captivated by the exotic beauty of orchids. One of the largest family of plants in the world with over 25,000 recognized species, these highly evolved flowers come in all shapes and color. Many species do well as houseplants and can transform your home into a tropical paradise.

Orchid Botany for Beginners

Though they vary greatly in size and form, orchids all share a group of characteristics that distinguish them from other families of flowering plants.

- ☞ Like lilies and grasses, they are classified as monocots, recognizable by their leaves with parallel veins and flower parts that occur in threes (e.g. three petals and three sepals).
- ☞ The middle petal is modified into a structure known as the lip, or labellum. It sometimes acts as a landing pad for pollinators, which include bees, wasps, butterflies, beetles, birds, and bats.
- ☞ Orchid flowers have bilateral symmetry, which means one side is a mirror image of the other.
- ☞ Reproductive organs are fused: Both female and male parts are combined to form a single structure called the column.

Ninety percent of orchids grown as houseplants are from the tropical regions of the world. Most are epiphytic, or tree dwelling, and possess specialized stem structures called pseudobulbs that help them store food and water high in the canopy. Outside of their native habitat, they require special attention but will reward with showy blooms and year-round green foliage.

Basic Orchid Care

Below is some general information regarding the cultural requirements for orchids commonly grown as houseplants. As needs can vary between different genera and species, knowing what type of orchid you have will help you determine how to properly care for it.

WATER and FERTILIZER. Most orchids require water every 4–7 days, depending on the season. When watering, hold your orchids under the faucet to flush the potting media. This will soak it evenly and get rid of excess salts that build up as the media decays. Like other houseplants, water your orchids with lukewarm water.

When they are actively growing, fertilize every month with an orchid fertilizer or a regular houseplant fertilizer diluted to half strength. Over-fertilizing causes weak growth, which will make the plant susceptible to pests and disease. After flowering, reduce watering and fertilizer application until leaf growth begins again.

TEMPERATURE. Generally, tropical orchids do well in typical house temperatures, between 55°– 60° F at night and 70°– 85° F during the day. If your orchid is close to a glass window, make sure it doesn't get too hot or too cold during periods of extreme outdoor temperatures.

LIGHT. Too much or too little light can cause damage or death to your orchid. Watch for symptoms of either (see box at right), and adjust the light levels accordingly.

Genera that require lower light levels are *Phalaenopsis* (moth orchids), *Paphiopedilum*, and *Masdevallia*. These genera are great for windowsills that receive indirect light in the morning.

*Oncidium*s, *Cymbidium*, and *Dendrobium*s like higher light levels. Place them in a window that receives strong morning sun. If you have a *Vanda* orchid, give it as much light as possible without burning (drying out) the leaves.

These can be symptoms of lighting problems:

Too little light

- ☞ Dark green leaves with no luster
- ☞ New growth is smaller than before
- ☞ Plant is floppy and weak looking
- ☞ Plant has not bloomed or has few blooms

Too much light

- ☞ Leaves have yellow or brown dry patches
- ☞ Leaves feel hot to the touch
- ☞ Leaves turn black and drop off
- ☞ Color is bleached out of leaves

HUMIDITY. Most orchids prefer 40-70% humidity, which may be difficult to achieve in the home, especially when the heater or air-conditioner is running. Home-made humidity trays work nicely to improve humidity levels. Fill a saucer with gravel and water, and rest your orchid pot on the gravel, making sure to keep it above the water level. Some garden centers and orchid suppliers sell specialized trays for this purpose.

Tips for Healthy Orchids

- ☞ To grow healthy orchids start out with a healthy plant. Only purchase plants with strong, green leaves (no yellow or black marks). Look for plants that are securely rooted in firm media that is not mushy or acid.
- ☞ If you have a healthy collection of orchids, try to isolate new purchases for 2 weeks. This will prevent any disease or insect from infecting the other orchids.
- ☞ Sterilize cutting tools every time you move from one plant to another. Orchids are extremely prone to infectious viruses.
- ☞ Maintain a spotless growing area. Remove faded flowers and dead leaves promptly.
- ☞ Water early enough in the day so the leaves and flowers dry before night. Do not let water accumulate in the saucer.
- ☞ Operate fans or open the window during warm weather for adequate ventilation. If possible, move plants outside to a shady location during the warm summer months.
- ☞ When you notice a problem, act quickly and find the culprit. Once you know what is causing the damage, you can target that problem specifically.

Orchids in Danger

In the 19th century, "Orchidmania" hit Europe and the United States. Obtaining the world's most beautiful and rare species became an obsession for amateur and expert collectors alike. Entire forests were stripped of orchids; greedy plant hunters burned what they could not carry home; and collectors paid thousands of dollars for the mere promise of obtaining a yet undiscovered species.

Thankfully, since this time most orchid collecting has been banned and many species are recognized as threatened and endangered in their natural habitats. Many orchids are endemic to a certain area or habitat, meaning they do not exist outside of that area. Destruction of these habitats has meant that many orchids have become extinct quicker than they can be described or classified.

You can aid the conservation efforts through careful selection of plants from reputable dealers. Only purchase plants that have been commercially grown from seed or propagated vegetatively.

Longwood's Orchid Display

Visit Longwood's Orchid Display for a living showcase of 300-500 plants at peak bloom, filling the room with their vibrant colors and delicate fragrances. The plants on display are chosen from among Longwood's 9,000-specimen collection, which includes orchids from Central and South America, Africa, Southeast Asia, the Himalayan and Andes Mountains, and the Caribbean and South Pacific Islands.