# **New York Botanical Gardens: Troubleshooting with Orchids**

Orchids are tougher than we think. Because they have such an intriguing, exotic appeal, we assume they are difficult to cultivate. Like every plant that we bring into our homes, orchids do present some challenges, but nothing extraordinary.

In nature, orchids are either terrestrial (growing in the ground) or epiphytic (growing on other plants). They have colonized everything from the rain forest floor to the upper levels of the forest canopy. They are adaptable plants that withstand drenching rain, tropical breezes, high humidity and extended dry spells. Understanding where your orchid came from is helpful for understanding its growing requirements in the home environment. With thousands of orchid species available, there are choices for almost every situation.

The ABCs of orchid care are: appropriate levels of light, water, drainage, good air circulation, humidity and fertilizer. When all these components are in place, you will have a healthy orchid.

Below are some troubleshooting pointers.

**Houseplant rule number one:**

Whenever you have a houseplant, orchid or otherwise, that has a serious disease or has been irreparably damaged by neglect or overwatering, throw it out. Don't waste your time fighting losing battles.

**How do I get my orchid to rebloom?**

This is one of the most common questions for the beginner. Remember that each orchid has its own seasonal cycle. Some flower only once a year, while others flower several times during a year. Certain *Dendrobium* require a dormant period (reduce water, fertilizer and temperature, and keep in bright light) before they flower. Other orchids, such as *Cymbidium*, need a substantial drop in temperature to induce flowering.

The main reason most orchids in the home don't flower is that they don't receive enough light. Another common mistake is maintaining the same temperature night and day. For many orchids to rebloom, the temperature needs to drop at least 10°F at night. One easy way to accomplish this is to move the orchid close to (but not touching) a window.

**Is my orchid getting enough light?**

One easy way to check light levels in your home is to place your hand 6 to 12 inches away from your orchid, between the orchid and the light source. A well-defined shadow on your orchid leaves means that there is enough light to grow a sun-loving orchid such as *Cattleya*. A faint shadow means that one of the more shade-tolerant orchids, such as*Phalaenopsis* or *Paphiopedilum*, will do well in your home.

Another simple way to test whether your plant is getting enough light is to observe its leaf color. Most orchids have grassy-green leaves. If the leaves are dark green, it's not receiving enough light. If they are yellow, it's receiving too much light (although yellow leaves can be an indication of several different problems).

**If my plant needs supplemental lighting, what is the best way to do this?**

Probably the easiest and most economical method is to invest in some standard fluorescent lights. You will need four tubes of both warm and cool light. The red light (warm tube) promotes flowering, while the blue light (cool tube) encourages lush, green foliage. The plants should be positioned no further than 8 to 10 inches below the lights. Light intensity is stronger in the center of the tube, so organize your plants accordingly. There are other types of growing lights for orchid enthusiasts. Full-spectrum lights and High Intensity Discharge (HID) lights are popular among growers.

Artificial lights are not as strong as natural lights. They should be kept on with a timer, 12 to 16 hours in summer and 10 to 14 hours in winter.

**Why does my orchid have yellow leaves?**

There are a number of possible reasons. Underwatering can cause yellowing by restricting nutrient delivery to leaves. However, yellowing can also be caused by overwatering, which causes root deterioration, again limiting the nutrient delivery. To diagnose the problem, gently remove your orchid from its pot and take a look at its roots. It could also just be part of the natural aging process. Clean up the plant by cutting off the dead leaves.

**Why does my orchid have brown tips on the leaves?**

Brown tips are often a sign of a lack of humidity or a lack of water. Increase the frequency of watering, or place your orchid on a pebble tray to raise the humidity. Clean the pebble tray every 2 months with a 10% bleach solution so that bacteria do not breed in the damp environment.

**What do I do when the aerial roots on my orchid shrivel and dry up?**

Shriveled aerial roots indicate that you need to increase the humidity. If the roots are completely dead, you can cut them off. But don't be too hasty--orchid roots and pseudobulbs last much longer than you think and continue to function even when they look as if they are on their way out.

**What do I do about black spots on the leaves of my orchid?**

Black spots can mean a number of things. If the spots increase in size and become mushy, it is probably a fungal disease. Cut off damaged sections and dust your orchid with cinnamon (a wonderful natural fungicide). Some *Oncidium* will develop tiny black speckles on their leaves. This is nothing to worry about; it is a reaction to cold water hitting their leaves. They are an orchid's version of freckles.

**Why are my orchid's leaves wrinkled?**

Wrinkled leaves are a sign of underwatering. The leaves will fold up like an accordion. Water your plant well, making sure that water runs through the pot, and then increase the frequency of watering. The wrinkled leaves won't straighten out, but the new leaves will grow normally.  Your watering regime will depend on your home's light intensity, temperature and humidity.

**What is bud blast?**

Bud blast is when the buds on your orchid turn yellow, shrivel and fall off. *Phalaenopsis* and *Dendrobium* are particularly susceptible to bud blast. The most common cause of bud blast is either a sudden temperature change or low humidity.  When an orchid is in bud, protect it from a sudden drop or increase in temperature. Humidity levels need to be high, and the plant should not be allowed to dry out during this phase of its life. Leaks from heaters, drafts from windows, cigarette smoke, and ethylene gas (emitted from fruit) will also contribute to bud blast.

**What do I do about pests?**

While the temptation is to throw it in the trash (and you can), there are some simple remedies that you can try first. Begin by isolating the orchid from other plants. Pests such as mealy bugs and scale respond well to an application of rubbing alcohol (70% isopropyl alcohol). This can be applied with a cotton swab or a soft toothbrush. If the orchid is sensitive to the alcohol, dilute the mixture with water. Spray aphids with soapy water; a few drops of dish soap in a spray bottle of water. Murphy's Oil Soap® also works well for combating pests. Add two tablespoons to one quart of water. For all insect problems, re-treat the plants every 7 to 10 days for 3 to 4 weeks.