

# Phalaenopsis

Fayl-eh-NOP-siss

*Phalaenopsis*, the moth orchid, is perhaps the best orchid for growing in the home, and is also a favorite with greenhouse growers. Well-grown plants can flower often, sometimes with a few flowers throughout the year, though the main season is late winter into spring. Based on DNA analyses, the former genera *Doritis* and *Doritaenopsis* are now synonyms with *Phalaenopsis* and should be grown similarly.

**LIGHT** needs are easy to fulfill for a *Phalaenopsis*. They can receive ambient light in a greenhouse or North window at the least, to 4 hours of direct sun at the most. Most will thrive with two to three hours of direct sun a day.

- In a greenhouse, shade cloth is required to reach about 10,750-21,500 lumens/1,000-2,000 foot-candles, depending on the plants.
- In the home, east, north or west windows where they will get about 1-4 hours of direct sun are ideal.

Many types of *Phalaenopsis* will grow well under artificial light. Use lightbulbs/LEDs of your choice that are about 1-2 feet above the plant and emit >10,000 lumens per square yard/square meter. The lowest amount of lumens for growth is about 2000 lumens, though flowering may be poor

**TEMPERATURES** Depends on the hybrid/species, but in general, *Phalaenopsis* are happy with 55F-72F (12.7C-22.2C) nights and 70F-85F (21.1C-29.4C) days. If growing indoors, no need to worry about temperature; room temperature all the time is fine. Fluctuating temperatures can cause bud drop on plants with buds ready to open. Additionally, most *Phalaenopsis* will refuse to bloom if the temperature at any time goes above 82F(27.7C).

**WATER** When thinking about water for epiphytes like *Phalaenopsis*, you must keep in mind that they like have quick wet/dry cycles. *Phalaenopsis* like to go dry in between waterings, but like to be immediately watered when their media hits dryness. If growing in a greenhouse, you can/should water daily regardless of whether or not it's potted or mounted. Indoors, *Phalaenopsis* should be grown

potted, and after watering from the top, be allowed to sit in about ½" of their own flow-through for a day or two. Otherwise, indoor *Phalaenopsis* can be taken to the shower or sink and be watered, drip dry, then be placed back. The frequency will depend on how fast it takes for the media to dry in your conditions. Indoors, you can get away with watering less frequently by letting them sit in their own flow-through. Use lukewarm water! Water temperature below 50 F may injure plants, as will hard water or water softened by the addition of salts.

Plants should be thoroughly watered and not watered again until nearly dry. In the heat of summer in a dry climate, this may be every other day; in the winter in a cool northern greenhouse, it may be every 10 days. Water only in the morning so the leaves dry, and do not let water collect in the crown to prevent crown rot.

**HUMIDITY** for *Phalaenopsis* is a bonus, but is not necessary for growing these well. Indoors, as long as the *Phalaenopsis* are well-watered and frequently watered, you do not need to worry about humidity. If you are not as frequent with waterings, then humidity should be brought up to ~55-85%. Remember that humidity is an anti-dryness factor; orchids do not absorb water through their leaves. If you raise the humidity, the plant will be slightly more robust, but not incredibly so. In a greenhouse, air should always be moving around the plants to prevent fungal or bacterial disease, especially if high humidity or cool and wet conditions exist.

**FERTILIZE** and water regularly to produce strong plants. Use regular strength to ½ strength of a high nitrogen formulation (such as 30-10-10) while plants are in active growth, slowly tapering off as the

season progresses. A blossom-booster formulation (such as 10-30-20) should be used as flower spikes are forming. Do not fertilize during the winter.

**POTTING** is best done in the spring, immediately after flowering, but can be done any time as long as the roots are kept as intact as possible. *Phalaenopsis* plants must be potted in a porous mix. Repotting is usually done every one to three years. Mature plants can grow in the same container until the potting medium starts to decompose, usually in two years.

Root rot occurs if plants are left in a soggy medium. Seedlings usually grow fast enough to need repotting yearly, and should be repotted in a fine-grade medium. Mature plants are potted in a medium-grade bark mix. Indoors, *Phalaenopsis* do best potted in a fine bark mix, regardless of size, and in a net/mesh pot that is slipped into a larger plastic (ideally clear plastic) or ceramic pot. The idea is, is that they can sit in about ½" of water, which wicks up into the media but allows the roots to breathe. It's also ideal, when repotting most *Phalaenopsis*, to pot them leaning forward at about 45 degrees or more. This will prevent the roots from "searching upwards". To repot, trim soft, rotted roots and spread the remaining roots over a handful of medium in the bottom of a new pot. Fill the rest of the pot with medium, working it among the roots so that the junction of the roots and the stem is at the top of the medium.

**OTHER** Bud blast most commonly occurs from a sudden change in temperature or watering. For most *Phalaenopsis* to rebloom, the temperature highs must never go above 78F/25.5C, or the plant will refuse to bloom<sup>1</sup>. The lows can go down as far as

12/22 ...ton, L. A., & Runkle, E. S. (2009). ...-temperature inhibition of flowering

of *Phalaenopsis* and *Doritaenopsis* orchids. *HortScience*, 44(5), 1271-1276.

60F/15.5C, but the ideal blooming range is  
65F/18.3C nights and 72F/22.2C days.

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