

Paphiopedilum Orchids

**Resource: Cymbidium Society of
America**

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Paphiopedilums are best grown as pot plants in a glasshouse, in the home, or outdoors in mild climates. Many warm growing types are successfully grown and flowered indoors, near a window or under artificial lights. However cool growing types may not bloom well indoors. They require cooler nights to initiate flowering and need to be "summered" outdoors or grown in an intermediate glasshouse. Outdoor growers should provide wind shelter and overhead protection (such as plastic) to shield the plants from frost and winter rains. Adequate air circulation around the plants and around the roots is essential for good health. The plants should never be crowded or allowed to sit in water.

Growth Habit

Paphiopedilums have no pseudo bulbs, producing sequential growths along short rhizomes. The growth consists of a fan of several linear to oblong leaves, with apical inflorescence (flower spike emerging from its center) bearing one or multiple flowers. Each growth blooms only once but may continue to provide support and nourishment for the plant for many years. The main blooming season is winter through early spring, although some Paphiopedilums produce new growths year-round and flower as each growth matures. Paphiopedilums make excellent pot plants. The flowers last for up to three months and the plants are attractive even out of bloom.

Temperature

Paphiopedilums prefer intermediate to cool growing conditions. While some tolerate a warmer environment, many need a nighttime drop in temperature to set flower buds. The optimum temperature range is between 55° F and 80° F (13° C and 27° C) However, the plants are not harmed by short exposures to greater temperature extremes, from 40°F to 100° F (4° C to 38° C). Many cool growing types can withstand an occasional nighttime dip down to 32° F (0° C), making them ideal for outdoor culture in mild, frost-free climates. Warmer growing paphs, including multifloral (strap leaf), Brachypetalum and maudiae types, are best grown in a glasshouse.

Light

Paphiopedilums prefer a shaded area, succeeding in less light than most orchids. Optimum growth and flowering are achieved at 1000 to 2500 foot-candles of light, equivalent to 70% to 85% shading in summer sun light (by comparison, cymbidiums prefer 35% to 60% shading). Plants with harder leaves (such as multiflorals or parvisepalums) generally tolerate higher light levels than the soft-leaved Maudia types. Good indications of insufficient lighting are long and weak flower stems and entire plants "stretching" towards the light. Excessive yellowing of leaves and short flower stems may indicate that the plant is getting too much light.

Water

Paphiopedilums must always be kept moist, since they do not have pseudo bulbs for storing water. Water in the morning or sunny days so the leaves can dry quickly, since water standing in the crown of the plant on cool nights promotes rot. As a rule, watering once a week is about right, adjusting the frequency to compensate for pot size and weather extremes. In the summer when it is hot and dry, the plants may need watering twice a week. During overcast winter weather every 10 to 14 days may be sufficient. Test the mix with your finger, and water when it feels only slightly damp an inch (2.5 centimeters) under the surface. Never let a pot stand in a saucer of water since this will suffocate roots.

Fertilizing

Paphiopedilums are light feeders. It is always safer to feed lightly but often, and to water first before feeding. Use water-soluble fertilizers formulated for orchid, diluted to 1/4 of concentration recommended for cymbidiums. Balanced fertilizers (20-10-20, 20-20-20 or 18-18-18) may be used year-round. High nitrogen fertilizers, such as 30-10-10 should be used with caution and only during warm weather to promote new growth.

Spring and summer: Apply balanced fertilizer (such as 20-10-20) at 1/4 strength after every watering, or alternate balanced and high nitrogen fertilizer (such as 30-10-10).

Fall and winter: Continue using balanced fertilizers as 1/4 strength, reducing the frequency of application as the weather cools and the days get shorter. When days are shortest, you will only need to water every 10 to 14 days and fertilize once a month.

Repotting

Repot paphiopedilums every year to 18 months, before the growing medium starts to break down.

Fresh mix allows good air circulation around the roots, essential to plant health. Repotting may be done at any time of the year, but springtime right after flowering is best. Since different materials dry differently, all plants in a collection should be potted in the same type of mix to simplify watering. Any fine, fast-draining soil-less mix may be used, including combinations of bark, sphagnum moss, charcoal and lava or sponge rock. One good mix consists of:

8 parts clean fir or pine bark - 1/8 to 1/4 inch (3 to 6 millimeter) chunks

2 parts coarse perlite (sponge rock) - 1/8 to 1/2 inch (3 to 12 millimeter) chunks

1 part charcoal (optional) - 1/8 to 1/2 inch (3 to 12 millimeter) chunks

Slip the plant out of the pot and carefully remove all old mix and dead roots, taking care to disturb live roots as little as possible. This is important, because paphs do not readily regrow roots on old growths. Do not be eager to divide the plant, since large specimens produce more flowers. Leave at least two to five growths per division. Select a clean pot with ample drainage holes. Use the smallest size needed to accommodate the plant roots, with just enough room for one or two new growths. Place the plant in the pot and support with one hand while pouring the fresh mix around the roots. Cover the rhizomes with no more than 1/4 to 1/2 inch (6 to 12 millimeters) of mix. Tap the pot and press down the mix gently. Water the plant, keep it slightly more shaded and do not fertilize for at least 3 to 4 weeks.