

D & B ORCHIDS  
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## Growing Phragmipedium Orchids

by

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Orchid growers are always looking for something new, exciting and different. The availability of new hybrids is influenced by the fast growing orchid market. The orchid growing hobby is the fastest growing plant hobby, not just in the United States but all over the world. Phragmipedium orchids have become popular because hybridizers are producing new and exciting primary hybrids with newly discovered Phragmipedium species. Phragmipedium orchids are exotic, different from other orchids, easy to grow, can grow indoors under lights or on windowsills, the flowers last for weeks and some produce flowers for many months.

Where as, Phragmipediums have been grown since they were discovered in South America in the early 1800's, the newest Phragmipedium hybrids come from the 1981 discovery of *Phragmipedium besseae* in Peru and later in 1987, another form of *Phrag. besseae* discovered in Ecuador and still another form, a yellow form, was discovered in a group of Phragmipediums from Ecuador. This new species of *Phragmipedium besseae* have enabled hybridizers and growers to produce easy to grow Phragmipediums with bright colorful red, orange and yellow flowers on compact growing plants.

Phragmipediums are in the subfamily Diandrae, meaning two anthers. In older literature, the name Cyripediliae is the subfamily or subtribe name. Do not allow this to confuse you. We are talking about the tropical lady slipper orchids found in South America. If some botanist have their way, all the lady slipper orchids will be placed in a separate family next to Orchidaceae, called Diandraeor. Cyripediliae or Diandrae has four genera, Cyripedilum, Paphiopedilum, Phragmipedium and Selinipedilum. The newly found Phragmipedium xerophyticum has been placed in a separate genus, Mexipedium, by some botanist. In general, these genera are in a separate subfamily because of they have two separate fertile anthers, a pouched lip and

the fused lateral sepals. Location of habitat, number of ovary chambers, configuration of pouch and pollinators place individual lady slippers in the different genera.

Phragmipediums habitats range from central and northern South America up through Panama, Guatemala and Mexico. Phragmipediums are found in xerophytic rock outcropping such as *Phragmipedium xerophyticum*, in the forks of trees such as *Phrag. caudatum*, volcanic clay such as *Phrags. boisseranum* and *Phrag. wallisii*, or submerged under periodic water such as *Phrags. ecuadorensis*, *P. klotscheyanum*, *P. longifolium* and *P. pearcei*. The three flowering categories for Phragmipediums are the small sequentially flowering such as *Phrags. caricinum* and *P. pearcei*, the large simultaneous flowering such as *Phrag. caudatum* and the small rounded colorful sequentially flowering such as *Phrags. schlimii* and *P. besseae*. Flowering season is early spring.

## Light

Light is the most limiting factor in growing and flowering Phragmipediums. They are considered an understory plant and therefore require some shade. Yet, *Phrag. caudatum* can take the same light as a Cattleya orchid. Most require more light than Phalaenopsis and Paphiopedilums. *Phrags besseae*, *P. pearcei* and *P. ecuadorensis* require more shade. Judge by the thickness of the leaves. Usually, the thicker the leaves, the more light is required. Around 1,400 to 2,600 foot-candles is a good range. Indoors, grow Phragmipediums under florescence lights, high intensity discharge lights or on an east or south window sill.

## Temperature

An intermediate greenhouse and normal house temperature is adequate for Phragmipediums. Day time temperature should not exceed 90 degrees Fahrenheit and nights should not drop lower than upper fifties or low sixties. Grow Phragmipediums near the wet wall or evaporative cooler for extra cooling and humidity.

## Humidity

Phragmipediums require 50 to 70 percent humidity. Provide extra humidity in a greenhouse with misters under the benches or saturating the gravel floor every afternoon as needed. Provide extra humidity indoors by growing Phragmipediums above water but not sitting in water. The constantly evaporating

water will provide the orchids with the extra humidity. Fill a saucer or water holding pan with gravel or use egg crating. Keep water below the top of the gravel or egg crating. Egg crating is a plastic material used to defuse ceiling lights. Look for it in the ceiling section of hardware centers.

## **Water**

Most Phragmipediums grow on the slightly acid side, pH around 5.5. Since most city water is produced at pH of 7 to reduce pipe corrosion use RO water, rain water or distilled water. Water to keep the potting material moist. How often is determined by potting material, humidity and light. Some Phragmipediums like *P. besseae* prefer to sit in water. This is not an ideal situation because the media in the water can harbor disease and insects. It is best to water often enough to keep the media moist. Do not just give the orchid sips of water. Water thoroughly. Water flowing through the media provides oxygenated water for the roots and leaches out salts accumulated from the fertilizer and water. *Phrag. caudatum* which grows in trees prefers to grow on the dry side. But when in doubt water. With other orchids it is just opposite. Do not allow Phragmipedium roots to dry.

## **Potting**

Remember, Phragmipediums are epiphytic or lithophytic orchids. They usually grow in leaf litter in trees or on rocks. They require an open coarse media which drains quickly yet holds moisture. Media such as fine Douglas fir bark, charcoal and perlite or sphagnum moss are preferred. Some growers are using rockwool and perlite. Repot every year. The media breaks down quickly, because the Phragmipediums require so much water. Repot in the spring after the flowers fade.

## **Fertilizer**

Fertilize with a 1/4 strength fertilizer every two weeks during the summer and every three weeks during the winter. Phragmipediums are heavy feeders compared to other orchids. Too much fertilizer or salt build up in the media will cause leaf tip burn.