

PAPHIOPEDILUM: Lady Slipper Orchid

Pronounced: paff-ee-oh-PED-ih-lum

These Asian relatives of our native lady slippers come in an almost infinite variety of shapes, sizes and colors, and include those that are very easy to grow and bloom and others that are much more difficult. Fans of green, or mottled leaves give rise to flower stems carrying one or more flowers in colors of white, green, yellow, earth tones, pink, red and black.

Healthy Paphiopedilum start with healthy roots:

- Pot in a fine medium. Fir bark mixtures are best, with 0.5 to 1.0 cm chunks of bark, perlite and charcoal.
- Repot when medium starts to decompose or new growths have reached the edge of the pot. Check for decomposition yearly, on newly purchased plants or if leaves are limp.
- Remove old medium if it is loose and any rotting roots (dark and soft to touch); choose a plastic pot that will only just hold the roots of the plant and center plant in new pot.
- Paphiopedilum require a basic (rather than acidic) mix. This is achieved with extra calcium. If your water does not have a high calcium content, top dress the medium with dolomite lime or crushed oyster shell and replace when it has disappeared.
- Roots should be slightly moist at all times. Water when medium has begun to dry but while it is still damp. Water thoroughly, with a volume of water at least equal to that of the pot.
- Do not use water softened in salt-consuming water softeners. Despite the need for extra calcium, low mineral water is preferred, such as naturally soft water or rain water. If hard water is used, water very heavily to flush minerals.
- Avoid leaving water standing in the crown of the plant as this can lead to fatal rot.
- Fertilize weakly and frequently with a balanced fertilizer. One-eighth to one-quarter strength recommended by manufacturer for house plants every week in spring and summer and every two weeks in autumn and winter.



Healthy leaves produce more and bigger flowers:

- Medium light levels are appropriate. Leaves should be a medium green, usually not yellowish (too much light) or dark green (too little light). They should be firm, not long and floppy (more light needed).
- Two to three hours of sunshine on a windowsill (East or West) or 15-30 cm under a four tube fluorescent fixture.
- Leaves should be firm; if soft and desiccated, check roots for rot, and repot if necessary. High humidity (such as enclosing the plant in a plastic bag) will aid recovery if most or all of roots lost, but be careful of rot.
- Paphiopedilum do best with 60-70% humidity but when mature will grow and bloom, although more slowly in lower humidity. High humidity is particularly desirable to form new roots, which may not grow properly in low humidity situations. Use humidifier to raise humidity – humidity pans and misting minimally effective. Enclosing plant growing areas is effective but ensure fresh air and air movement to avoid mold and rot.
- Grow Paphiopedilum in intermediate temperatures with 14°C minimum winter nights and 29°C summer day maximum. Ensure 6-12°C day/night difference to aid flower formation.

Asian lady slippers usually bloom annually and the flowers last for several weeks:

- Maintain plant orientation while spike is growing for best display.
- Some types require slightly different conditions
 - o Complex type: Plain green foliage, large round flowers. Medium size plants. Standard conditions.
 - o Maudiae type: Dark green mottled foliage. Easiest to grow, small plant, warmer temperatures and lower light.
 - o Multifloral type: Plain green foliage. Harder to grow, large plant, warmer temperatures and high light.
 - o Brachypetalum: Dark green mottled foliage, bird's egg flowers. Harder to grow, small plant, warmer temperatures, low light, more coarse medium and much calcium.
 - o Chinese types: Mottled foliage. Small plants, standard conditions, coarser medium. The species *delenatii* does not require a basic medium.

Space prevents more detail here. The general "Orchid Culture" sheets in this series, available from your society or on the web at <http://www.canadianorchidcongress.ca/> provide further cultural information. For specific help with your orchids or further information join your local orchid society.

