

These high-altitude orchids from the New World tropics flourish where cool temperatures prevail year around. Odontoglossums are known for their striking sprays of flowers. Culture is similar for hybrids in this group, some being *Odontonia*, *Odontioda* and *Vuykstekeara*.

Light: These orchids require bright light. While these are not generally considered to be good houseplants, they may succeed in an east window or a shaded south window; western exposures are usually too warm in most climates. In a greenhouse, levels from 2000 to 5000 foot-candles are acceptable as long as heat levels can be kept down. If summer day temperatures are high, light levels can be reduced to cool the growing area.

Temperature: Odontoglossums require exacting temperatures. Day temperatures below 75 to 80 degrees are almost essential year around. Nighttime temperatures of 55 to 58 degrees are best. Short periods of warmer day temperatures may be tolerated, especially if humidity and air movement are at optimal levels, nights are cool and the plants have healthy root systems.

Water: Water should be plentiful, coupled with perfect drainage. The potting medium should just begin to dry before watering. This may mean watering every two to seven days, depending on weather, pot size and material and type of potting medium. Accordion pleating on leaves is a symptom of insufficient water or humidity. As with other orchids from high rainfall areas, Odontoglossums are particularly sensitive to poor quality water, which will give poor roots and leaf tip burn.

Humidity: Coupled with moving air, humidity should be 40 to 80%. Evaporative cooling in a greenhouse increases humidity while cooling the air and is highly recommended for these orchids in most climates. Fogging the air or dampening the floor with water also helps cool and humidify. In the home, set the plants on trays above moist pebbles, with the pots resting above the water.

Fertilizer: Feed regularly with a dilute solution while plants are actively growing. Applications of 30-10-10 formulations twice a month are ideal for plants in a bark-based potting medium. A 20-20-20 formulation should be used on other media. If weather is overcast, applications once monthly are sufficient. Some growers use a high phosphorus 10-30-20 blossom booster formulation as plants approach flowering to increase flower count and substance.

Potting: Re-potting should be done as new growth becomes about half mature, which is usually in the spring or autumn. These plants need to be under-potted, so when re-potting, leave only enough room for one to two years of new growth. Under-potting also increases the ability to provide the more frequent watering these plants need as the smaller pots dry more quickly and evenly when filled with roots. A fine-grade potting medium with excellent drainage is required; because the medium is kept moist, annual or biannual re-potting is normal. Spread the roots over a cone of potting medium and fill in around the roots with more medium. Firm the potting mix around the roots. Keep humidity high and the pot dry until new roots form.