

Odontoglossum Alliance

Cool-Growing Genera

These New World Tropics, high-altitude orchids are popular where cool temperatures prevail. The Colombian miltonias (truly *Miltoniopsis*) and showy odontoglossums have striking sprays of flowers. Culture is similar for hybrids in this group, some being *Odontonia*, *Odontioda* and *Vuykstekeara*.

LIGHT levels should be bright. An east window or a shaded south window in the home is ideal; western exposures are usually too warm in most climates. In a greenhouse, levels from 2,000 to 5,000 foot-candles are acceptable; some *Miltoniopsis* growers demand the pink flushing in the plants' leaves which

of the range while many odontoglossums thrive at 50° to 55°F at night.

WATER should be plentiful, coupled with perfect drainage. The potting medium should just start to dry before watering again. "Accordion-pleating" on miltonia leaves is a symptom of insufficient water or humidity, and may appear on plants of other genera if severe. This may mean watering every two to seven days, depending on weather, pot size and material, and type of potting medium.

HUMIDITY, ideally 40% to 80%, is important for all these orchids, coupled with moving air. In the

should be used on other media or on slabs. If weather is dull, applications once a month are sufficient. Some growers use a high-phosphorus 10-30-20 formulation bloom booster as plants approach flowering.

REPOT as new growth emerges from the base of the plant, which is usually in the spring or fall. These orchids like to be very pot-bound, so when repotting leave only enough room for one to two years of new growth. A fine-grade potting medium with excellent drainage is required; since the medium is kept moist, annual or bi-annual repotting is normal. Usually the lowest one-quarter to one-third of the pot is filled with drainage



results from the high light levels. If summer day temperatures are high, light levels can be reduced to cool the growing area.

TEMPERATURE is critical for these plants; day temperatures below 75° to 80°F are preferred year-round. Night temperatures of 55° to 58°F are best. Short periods of warmer day temperatures may be tolerated, especially if humidity and air movement are at optimal levels and nights are cool. *Miltoniopsis* plants prefer night temperatures at the upper end

home, set the plants on trays above moist pebbles, with the pot resting above the water. Misting is beneficial, but in the mornings only. 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.

FERTILIZER should be applied regularly 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

material, either crock shards, rocks, or Styrofoam "peanuts." Spread the roots over a cone of potting medium and fill in around the roots with potting medium. Firm the potting medium well around the roots by applying pressure. Keep humidity high and the pot dry until new roots form. A vitamin B1 compound may help establish newly potted plants.

Odontoglossum and Cool-Growing Relatives

These orchids flourish where cool temperatures prevail year-round. Most types prefer summer temperatures no higher than 80°F. They like high humidity and moisture at the roots without being soggy.

Light—Strong light is necessary, but without high temperatures.

GIVE: East light, or shaded south. In the greenhouse, 50% to 80% shade.

Temperature—High temperatures must be kept as low as possible.

GIVE: Days of 65° to 80°F; nights of 55° to 58°F. Seedlings may need warmer night temperatures. Many plants will tolerate high day temperatures if proper night temperatures are provided.

Water—Keep plants moist when growing, slightly drier when not producing leaves or flowers.

GIVE: Thorough waterings, allowing plants to approach dryness before repeating.

Fertilizer—

GIVE: 30-10-10 bi-weekly to plants potted in bark or bark mix, 20-20-20 if in other mixes.

Prepared by: Education Committee, American Orchid Society, 6000 S. Olive Ave., West Palm Beach, FL 33405 (407) 585-8666.