

DENDROBIUMS

Dendrobiums are one of the most diverse groups of orchids. Their cultural requirements span the gamut from the hottest of the hot to nearly freezing temperatures. Many require rest periods, with changes in water and temperatures to initiate flowering. Their flowers can last for a day to months. Many are sweetly fragrant. We'll separate them into their various groups for specifications on how to grow them well.

Callista Group

The Callista Group of Dendrobiums is characterized by a pendant spike habit. Species include *aggregatum*, *chrysotoxum*, *densiflorum*, *farmeri* and *thyrsiflorum*.

LIGHT: Bright, 1,500 to 2,000 foot candles.

TEMPERATURE: Summer 60 to 90 degrees F, winter to 50 degrees.

WATER: Evenly moist in the summer, winter, and just enough water to keep the bulbs from shriveling.

HUMITIDY: Dendrobiums need between 40 to 70% humidity. In a home growing environment humidity can be increased by the use of trays partially filled with gravel and water. Make sure the pots don't sit in water.

FERTILIZER: Dendrobiums should be fed regularly during their growing season. Use a balanced (20-20-20) fertilizer at $\frac{1}{2}$ strength during the growing season. Don't fertilize during the winter.

POTTING: This group of dens doesn't like to be disturbed, especially the *aggregatum* types. Repot only when the mix has decomposed or growth has overtaken the pots.

Dendrobium Group

Most Dendrobiums in this group are pendulous, with leaves all along the canes. They produce several flowers per inflorescence from the upper nodes of leafless canes. There are two sub groups. **1-** *chrysanthum*, *friedricksianum*, *nobile*, *wardianum*. **2-** *anosum*, *crassinode*, *falconeri*, *fimbriatum*, *findlayanum*, *heterocarpum*, *loddigesii*, *moniliforme*, *parishii*, *primulinum*.

Subgroup 1

LIGHT: Bright, similar to Cattleyas at 2,000 to 3,000 foot candles.

TEMPERATURE: 60 to 90 degrees F.

WATER: LOTS of water and fertilizer when roots form until the top leaves appear on the canes. Give very little water, no fertilizer and cooler nights (50 F) during the winter.

HUMITIDY: Dendrobiums need between 40 to 70% humidity. In a home growing environment humidity can be increased by the use of trays partially filled with gravel and water. Make sure the pots don't sit in water.

FERTILIZER: Dendrobiums should be fed regularly during their growing season. Use a balanced (20-20-20) fertilizer at $\frac{1}{2}$ strength during the growing season. Don't fertilize this group during the winter.

POTTING: Repot every other year when new roots appear.

Subgroup 2

LIGHT: Bright, similar to Cattleyas at 2,000 to 3,000 foot candles.

TEMPERATURES: 60 to 90 degrees F in the summer, to 55 degrees F in the winter.

WATER: Water generously when in growth mode. STOP watering the deciduous species in the winter.

HUMITIDY: Dendrobiums need between 40 to 70% humidity. In a home growing environment humidity can be increased by the use of trays partially filled with gravel and water. Make sure the pots don't sit in water.

FERTILIZER: Dendrobiums should be fed regularly during their growing season. Use a balanced (20-20-20) fertilizer at ½ strength during the growing season. Don't fertilize this group during the winter.

POTTING: Plant in baskets for ease in dealing with large, pendulous canes. Repot only when the baskets decompose.

Formosae Group

Formosae dens are characterized by cane like pseudobulbs with black hairs on leaf sheaths and pseudobulbs. The flowers appear near the end of the bulbs and are usually white and large—up to 4" across. Species include bellatulum, dearei draconis, formosum, infudibulum, lowii, margaritaceum, sanderae, schuetzei

LIGHT: Medium to bright light.

TEMPERATURE: 50 to 60 degree F nights to 85 degree F maximum days.

WATER: Give plenty of water and fertilizer while in growth phase. A short, dry rest period should be given when growth is complete. Keep barely moist afterwards, until growth resumes.

HUMITIDY: Dendrobiums need between 40 to 70% humidity. In a home growing environment humidity can be increased by the use of trays partially filled with gravel and water. Make sure the pots don't sit in water.

FERTILIZER: Dendrobiums should be fed regularly during their growing season. Use a balanced (20-20-20) fertilizer at ½ strength during the growing season. Fertilize this group at ¼ strength during the winter.

POTTING: Use a medium mix or a New Zealand sphagnum moss perlite combination to repot this group. Repot every other year when the new growths appear.

Phalaenanth Group

The Phalaenanth group of dens are characterized by tall thin pseudobulbs that remain evergreen for several years. This group includes many of the most popular hybrid dens, including Den Emma White. Species include affine, bigibbum, dicuphum, phalaenopsis and williamsianum.

LIGHT: Medium to bright light. 2,000 to 3,000 foot candles.

TEMPERATURE: 50 to 50 degree nights to 90 degree days.

WATER: Give plenty of water and fertilizer during growth phases. Greatly reduce both when growth is completed.

HUMITIDY: Dendrobiums need between 40 to 70% humidity. In a home growing environment humidity can be increased by the use of trays partially filled with gravel and water. Make sure the pots don't sit in water.

FERTILIZER: Dendrobiums should be fed regularly during their growing season. Use a balanced (20-20-20) fertilizer at ½ strength during the growing season. Fertilize this group at ¼ strength during the winter.

POTTING: Repot Phalaenanth Dendrobiums every other year in a medium to large mix. Repot when new growth appears.

Oxyglossum Group

The Oxyglossum group of dens come from the cloud forests of New Guinea. They are miniature plants with brightly colored, very long lasting flowers. Species include cuthbertsonii, hellwigianum, laveifolium, masarangense, seranicum, vexillarius, and violaceum.

LIGHT: Medium light. 2,000 foot candles.

TEMPERATURES: 50 to 55 degree nights to 75 degree days.

WATER: Evenly moist at all times. This group of dens are very unforgiving of bad water. A high mineral content will cause them to decline and die. Most growers use collected rain water, distilled or reverse osmosis water for this group.

HUMITIDY: Dendrobiums need between 40 to 70% humidity. In a home growing environment humidity can be increased by the use of trays partially filled with gravel and water. Make sure the pots don't sit in water.

FERTILIZER: Oxyglossum dens are light feeders. Use ¼ strength fertilizer in the summer and little or no food when the plants are not growing.

POTTING: Repot only when the medium has decomposed. Be gentle—the roots of this group are very delicate.

Spathulata Group

The Spathulata group of dens are large, vibrant, evergreen plants with long lasting blooms that usually flower in the summer months. They will flower several times a year with proper culture. Species include antennatum, canaliculatum, discolor, gouldii, johannis, lineale, stratiotes, strebloceras, taurinum.

LIGHT: Medium to high light. 2,000 to 3,000 foot candles.

TEMPERATURE: 55 to 60 degree nights to 90 degree days.

WATER: Evenly moist all year. Plants can be kept dryer in the winter if temperatures are cooler.

HUMITIDY: Dendrobiums need between 40 to 70% humidity. In a home growing environment humidity can be increased by the use of trays partially filled with gravel and water. Make sure the pots don't sit in water.

FERTILIZER: The Spathulata group would prefer a balanced fertilizer (20-20-20) at ½ strength in the summer. Use the same fertilizer in the winter at ¼ strength. Be sure to flush the pots regularly with clear water, especially in the winter.

POTTING: Use a large, fast draining mix for this group of dens. Clay pots are useful. Repot only when new growth appears.