



# Orchid Growing Basics

or

## **Do You Know if Your Orchid is Happy?**

- **General Growing Principles** – The Importance of Water, Light, Air Movement, Temperature, Repotting and Fertilizer
- **Growing Tips for Commonly Available Orchids** – Phalaenopsis, Cattleyas, Dendrobiums, Oncidiums and Vandas
- **For Each Type of Orchid** – Let Your Orchid Tell You How Happy It Is



## General Growing Principles: **Water**

- Overwatering Has Killed Many Orchids
- Frequency of Watering Depends on Orchid Type and Potting Mix
- When You Water, WATER
- NEVER Use Softened Water
- Misting is Generally Ineffective Unless Very Low Humidity Environment



## General Growing Principles: **Light**

- Insufficient Light Primary Reason Orchids Don't Rebloom
- Intensity of Light Required Depends on Orchid Type
- Most Orchids Require Some Protection from Noontime Sun
- Leaf Sunburn if Sudden Increase in Light
- Winter Sun Less Intense than Summer Sun



## General Growing Principles: **Air**

- Orchids LOVE Fresh Air, Fans Okay
- Moving Air Lowers Leaf Temperature, Protects from Diseases and Pests
- Spring Through Fall, Find Place Outside Where Orchids Get Lots of Fresh Air
- Overwinter – Then Return to Fresh Air and Increased Vigor



## General Growing Principles: **Temperature**

- Most Orchids Like Same Temperatures as People Except They HATE Air Conditioning
- Different Orchids Have Different Temperatures Requirements
  - Some Orchids Require Protection in Winter
  - Don't Try to Grow Cool Growers in Florida
- Need 15 to 20°F Day/Night Temp Change



## General Growing Principles: **Repotting**

- Potting Mix PLUS Your Watering Habits Must be Matched to the Type of Orchid
- Orchids LOVE being Under Potted
- Don't Repot Unless You Have a Reason:
  - You Want Mix to Match Your Normal Mix
  - Two Types Mix Used (Bark around Sphagnum)
  - Potting Mix Degraded
  - Orchid is Unstable from Growing Out of Pot



# General Growing Principles: Fertilizer

- Use Dilute Fertilizer Each Time You Water (1/4 to 1/2 strength, or 50 ppm Nitrogen)
- Flush With Fresh Water Monthly
- Good: Any Balanced Fertilizer 20-20-20
- Better: Fertilizer with Micronutrients
- Best: 15-5-15 with Calcium and Magnesium
- Don't Bother with Bloom Boosters, High Middle Number Fertilizers



# Phalaenopsis – Moth Orchids

- **Light** – Shady, 500 – 1500 ft candles, eastern exposure, no direct sun after 10 or 11 am or before 3 or 4 pm
- **Potting Medium** – Water retentive mix, coconut husk or sphagnum moss base, water storage only in fleshy leaves
- **Water** – Evenly moist to slightly dry, don't let water accumulate in crown
- **Fertilizer** – Dilute fertilizer with each watering
- **Temperature** – 55-60°F min, 20°F diurnal temp change
- **Air** – Lots of fresh air
- **Blooming Period** – Mostly February through May, some summer bloomers
- **Secrets** – October cool (50°F) sets buds, repot every year or two after blooming, no later than June for spring bloomers (repot summer bloomers in February)





# The Happy Phalaenopsis Orchid

- **Healthy Roots** - Required for Best Blooms
  - Can Lift Up Plant by Vegetation, Pot-bound
  - Roots Plump, Green/Red Tip, Aerial Roots Are Okay
- **Plump Fleshy Leaves**
  - Green Leaves, Mottling, Reddish Pigmentation Okay
  - If Dried, Withered – Either Root Rot or Underwatered
- **Flower Spikes** – Stake Below Terminal Bud, Orient to Light, Don't Change Orientation as Flowers Develop
- **Repotting**
  - Repot After Blooming, March through June, Every Year or Every 2 Years
  - When Repotting Cut Out Dead Lower Sections Until Reach Healthy Tissue



# Cattleyas – Queen of the Orchids

- **Light** – Bright, 2000 – 4000 ft candles, southern exposure, dappled light, protect from midday direct sun
- **Potting Medium** – Coarse, well drained, aliflor or tree fern base, allow for 2 years growth in pot
- **Water** – Dry thoroughly between watering then drench, once/twice a week in summer, less during winter rest
- **Fertilizer** – Dilute fertilizer with each watering
- **Temperature** – 45 to 55°F min (a little cooler okay if not in bud), 20°F daily temp change
- **Air** – Lots of fresh air
- **Blooming Period** – Variable, depends on parentage
- **Secrets** – Bright light, allow to dry thoroughly, don't repot unless necessary



# The Happy Cattleya Orchid

- **Healthy Roots** - Required for Best Blooms
  - Can Lift Up Plant by Vegetation, Pot-bound
  - Roots – Green Growing Tip, Aerial Roots Are Okay
- **Healthy Leaves**
  - Lime Green, Deep Green Means Light Levels Too Low, Reddish Pigmentation Okay
  - Once Vegetation Ripens, Leaves Hard as Cardboard
  - Wilted Leaves Could Be Fusarium, Cut Infected Tissue Until Purple Ring around Pseudobulb Gone
- **Flower Spikes** – Stake Pseudobulb, Remove Sheath
- **Repotting** – Best Time is When New Roots Forming, Can Do Mass Repotting February thru April
  - When Repotting Cut Out Back Bulbs, Leave 3 to 5 Bulbs
  - Blooms on New Growth, Growths from Blind Eyes



# Dendrobiums – Phalaenopsis Type

- **Light** – Cattleya conditions, bright light
- **Potting Medium** – Coarse, well drained, aliflor or tree fern base, avoid easily degradable organic media
- **Water** – Similar to Cattleya conditions, heavier summer watering and drier winter conditions
- **Fertilizer** – Dilute fertilizer with each watering
- **Temperature** – Similar to Cattleya conditions, 45 to 55°F winter min, a little cooler okay if not in bud
- **Air** – Lots of fresh air
- **Blooming Period** – Mostly summer through fall
- **Secrets** – Bright light, repot sparingly, no copper fungicides



# The Happy Dendrobium Orchid

- **Healthy Roots** - Required for Best Blooms
  - Can Lift Up Plant by Vegetation, Pot-bound
  - Roots – Thin White Roots, Aerial Roots Okay
- **Healthy Leaves** - Evenly Spaced Along Cane
- **Flower Spikes** - Will Rebloom on Old Canes
- **Repotting** – Only Repot for a Good Reason
  - Disturb Roots as Little as Possible, May Just Drop into Larger Pot
  - If Leafless Canes, Don't Despair: Pot, Water & Wait for New Growth and Spike to Emerge



# Oncidiums – Dancing Ladies

- **Light** – Somewhat less than Cattleya Light, medium bright, 2000 – 3000 ft candles, southern exposure, dappled light, protect from midday direct sun
- **Potting Medium** – Match to your habits, water retentive for thin leaf types, well drained mix for thick leaf types
- **Water** – Let dry thoroughly between watering then drench, perhaps weekly in summer, less during winter rest
- **Fertilizer** – Dilute fertilizer with each watering
- **Temperature** – 45 to 55°F min, 20°F diurnal change
- **Air** – Lots of fresh air
- **Blooming Period** – Variable, mostly spring through fall
- **Secrets** – Bright light, allow to dry thoroughly



# The Happy Oncidium Orchid

- **Healthy Roots** - Required for Best Blooms
  - Can Lift Up Plant by Vegetation, Pot-bound
  - Roots – Lots of White Roots, Aerial Roots Are Okay
- **Healthy Leaves**
  - Lime Green, Deep Green Means Light Levels Too Low
  - Grows Like a Weed
- **Flower Spikes** – Stake Flower Spike
- **Repotting** –
  - Best Time is When New Roots Forming, After Blooming, Can Do Mass Repotting Feb thru Apr
  - Blooms on New Growth, Growths from Blind Eyes



# Vandaceous Orchids

- **Light** – Very bright, 4000 – 6000 ft candles, southern exposure, dappled light under trees, pool enclosures, protect from noon-time direct sun
- **Potting Medium** – None, grown in baskets
- **Water** – Water copiously, 1 to 3 times times daily in summer and every other day in winter
- **Fertilizer** – Dilute fertilizer with each watering
- **Temperature** – 50 to 60°F min, 20°F diurnal change
- **Air** – Lots and lots and lots of fresh air
- **Blooming Period** – Mostly spring through fall
- **Secrets** – Bright bright light, water and feed heavily, don't disturb roots, lots of air movement





# The Happy Vandaceous Orchid

- **Healthy Roots** - Required for Best Blooms
  - Fat, Long White Roots that Turn Green When Watered
  - New Rootlets Start Growing in Spring
- **Healthy Leaves**
  - Leaves From Top to Bottom of Plant
  - Missing Bottom Leaves May Indicate Winter Temperatures Too Low or Time to Top Plant
  - Keikis Often Form at Leaf Axil, Wait for Roots
- **Flower Spikes** – Stake to Basket Wire
- **Repotting** – Infrequently, Finish by End of June

# St. Augustine Orchid Society

## You Are Welcome at Any of Our Events

- Lectures at Monthly Program Meetings
- Beginners: Keiki Club Meetings
- Repotting Clinics w/ Master Gardeners at US 1 Ace Hardware
- Orchid Auctions
- Field Trips to Orchid Growers & Shows

