



# Jacksonville Orchid Society

## Member Information

2019



Dear Orchid Lover,

On behalf of the President, the Board, and the entire Membership, I would like to welcome you to the Jacksonville Orchid Society. The Society was established in 1943 by a group of interested orchid enthusiasts and has grown to a fully-involved society and is a member of the American Orchid Society. Within the society you will find all levels of experience. Some have been involved in orchids for dozens of years, some are credentialed AOS judges, while others are relatively new to the world of orchids. We all have one thing in common, we all love the fascinating world of orchids.

### **Meetings:**

The Society meets on the second Tuesday of each month (except in May and December) at the Garden Club of Jacksonville, 1005 Riverside Avenue, Jacksonville, FL 32204. The doors open at 7 pm. Guests and visitors are always welcome! If you decide to join after coming to a few meetings, membership is \$25.00 for a family and \$20.00 for individuals.

Each month we have an "Orchid Doctor" who will be available for members needing assistance beginning at 7:00 pm. This is a good opportunity to ask questions from an expert grower and get tips for what to do when you encounter a problem. The "Doctor" is extremely knowledgeable and can provide guidance on a wide variety of topics including species and hybrids that are good to grow in this area, identification of pests and diseases, watering and fertilizing, and where to grow your orchids.

Our general program with guest speakers begins at 7:30. During the program, we hold a general business meeting, serve refreshments, listen to an inspiring presentation by an orchid expert, participate in a raffle, and look at many beautiful and exotic orchids brought in by our members on the "Show Table." As a general rule, guest speakers often bring orchids for sale to members, guests, and visitors before or after the meeting.

Members are welcome to bring blooming plants for a friendly judging at the Show Table.

### **Raffle and Door Prize:**

At each meeting a door prize is won by a lucky attendee selected by a drawing. Tickets are available for purchased for a raffle of blooming and non-blooming orchids and occasionally some orchid supplies. This is an inexpensive way to add some interesting orchids to your collection. A special 'door prize' plant is also available as the grand prize.

### **Show Table:**

Members are invited to bring their blooming plants for the Show Table. This is a wonderful way to learn about many different genera of orchids. The proud parents are on hand to share anything you may wish to know about their plants. There is an informal judging of the plants on display by a team of members selected each month. A first, second, and third place designation is awarded by genera to those deemed most outstanding that month.

### **Plant Clinic:**

Each month we have a Q&A session at the meeting hosted by a member of the society. This is held at 7:00 pm until questions are exhausted or the general meeting begins. Attendees are welcome to bring any plant that they may have in for questions, comments or suggestions. If you bring in a leaf that you feel may be from a diseased plant, please place it in a zip-loc bag so as not to place any other plants at risk. Please remember there is no such thing as a stupid question. They have all been asked a dozen times in the past!

### **Green House Tours:**

In the warmer months we enjoy visits to various green houses. These may be a day trip to one of the commercial growers or a shorter trip to visit the green house (or growing area) of one of our members to see how they grow their orchids. These trips are not on any particular schedule and upcoming tours will be announced at the monthly meetings.

### **Website and Face Book:**

The following links, [jaxorchidsociety.org](http://jaxorchidsociety.org) and [facebook.com/pages/Jacksonville-Orchid-Society/133723160023084](https://www.facebook.com/pages/Jacksonville-Orchid-Society/133723160023084) are fantastic resources. They have everything you need to know and to keep on track with updates from the society.

### **JOS Annual Show and Sale:**

Each year the society sponsors an annual show and sale. Ten commercial growers and an orchid supplies vendor participate each year. Exhibits are presented by the commercial growers, neighboring societies, and some JOS members. All displays are judged by approved judges by the American Orchid Society. Ribbons and trophies are awarded to the most outstanding orchids and displays. This is one event you will not want to miss. Admission is free to the public.

### **Other Fun Activities:**

In May and December, we take a break from the normal schedule to socialize a little and have some fun. In May we have our annual picnic. Everyone brings a dish, there is grilling happening and then we all settle down to enjoy the food and participate in the plant auction. In December we go in for a little bit more of a 'dress up' event and we meet for cocktails followed by a wonderful dinner. After we have enjoyed dinner, we participate in a very fun filled and very entertaining auction. The auctions are our fund-raising events for the year and we encourage enthusiastic participation. All the proceeds of the two auctions go to providing the wonderful events and programs we are able to provide to the Membership.

Colin Cage

Membership Secretary.



## Warning - The Orchid Disease!

It is progressive and dangerous. It will begin with one beautiful flower, usually “just one for the window”. You may not recognize the symptoms even when 90% of your mail consists of orchid catalogs, and most of your computer time is on orchid sites and weekends and “sick days” have all been used to visit every orchid show within 300 miles.

By the time the virus has taken firm hold you will have reduced your yard to a safe area that can be enjoyed by your orchids. You will be trying to sell the kids’ swing set to make more room for orchids, and planning to expand or build a greenhouse.

Your computer will threaten to crash because of the huge amounts of orchid web sites: on-line catalogs, culture sheets, chat rooms, mail lists, orchid images ... these bookmarks, along with your orchid notes and plant inventory, fill all available space. You will ‘borrow’ from your child’s college fund to buy more memory. This virus will take over every room in your house - a bedroom or rec room turned into a plant room, grow carts, fertilizer, fungicides, books, magazines, catalogs.....

You will begin to avoid anyone who doesn’t grow orchids and will try to convert anyone who doesn’t know how wonderful your hobby is. Your family will not recognize you unless your fingernails are dirty and your hair is in various stages of wetness. You will seriously consider a second mortgage to take advantage of catalog specials and auctions.

Depression will set in immediately after the last orchid show of the season.

There is no cure.

Thankfully, there are groups where you can talk to others that have been infected and who will understand you. With luck, they’ll also know of a really good sale on orchid plants, seedlings, compots, flasks .... And all the appurtenances, and offer advice when your orchid needs help.

Lucky you! You found the Jacksonville Orchid Society.



## Jacksonville Orchid Society Plant Show Table

At each monthly meeting, members have an opportunity to bring in plants for club-level judging. It's great fun to see what your friends are blooming, to learn about new plants that you might want to acquire, and to increase your knowledge about orchids. The plants are awarded for the best in each category. Judging is done by either the speaker, a knowledgeable member, or a visitor with appropriate experience.

### Some Plant Table Do's and Don'ts:

DO bring in something that you think is beautiful. Likely others will too.

DO groom your plant before bringing them in. That is to clean the leaves, stake up the flower, and make the presentation the best you can. Leave any plant with bugs or disease at home!

DO completely fill out the registration form and place it on the plant. Ask a more experienced member if you are not sure about which category to place the plant.

DO bring in as many plants as you wish - there is no limit. The only requirement is that you have owned the plant for six (6) months.

DON'T place plants or registration forms on the display table after 7:30 pm. Any plants brought in after 7:30 pm will not be eligible for the judging.

DON'T talk to or interfere with the judging process.

DON'T bring in any plants with bugs or disease - leave those at home!

DON'T rearrange plants on the judging table to better display yours - be considerate of other members who have also brought in plants.



## Club Officers 2019

President	Lois Rasmussen
1st Vice President	Margie Johnson
2nd Vice President	Steve Dunn
Treasurer	Stacey Schwab
Secretary	Bernice Dunn
Membership Secretary	Colin Cage
Director	Jeff Sturgis (2019)
Director	Deborah Courtney (2019-2020)
Director	Loraine Conover (2019-2021)
Immediate Past President	Harry McElroy

## Standing Committees

Librarian	
Raffle Tickets	Annalee McPhilomy
Sunshine	Linda Schenholm
Hospitality	Carol Engle
Website	Art Russell
Newsletter Editor	BJ Honkamp
Facebook Editor	Art Russell & Michael Fritts
Photographer	Art Russell



## Orchid Culture:

The following pages are culture sheets for some of the more commonly cultivated genera of orchids in the north Florida area, along with some articles of special interest published by the JOS. This information, along with much more, is available from the following extremely informative websites.

Jacksonville Orchid Society - <http://jaxorchidsociety.org/orchid-culture>

American Orchid Society - <http://www.aos.org>

St. Augustine Orchid Society - <http://www.staugorchidsociety.org/index.html>

# Catasetum Culture Sheet

**kat-ah-SEE-tum**



This unusual group of orchids offers fascinating, waxy flowers that often have the peculiar habit of discharging their pollen masses (pollinia) onto pollinators. Almost always deciduous, the pseudobulbous plants have strict growing and resting periods. Most flower before entering a dormant period when they drop their leaves.

**Light** should be strong, especially near the end of the growth period. Early in the annual growth cycle, plants will tolerate less light, from 1,500 to 3,000 foot-candles. Plants grow best with light levels of 3,000 to 6,000 foot-candles, or one-half to three-fourths full sun. As pseudobulbs mature, harden them by giving slightly more light.

**Temperatures** reflect the fact these orchids are native to hot tropical areas and grow during the rainy summer months. During this growing period, day temperatures of 80° to 100° F and night temperatures of 60° to 65° F are beneficial. After growths mature, temperatures can be reduced to 55° F at night, with day temperatures of 70° to 85° F.

**Water** is a critical factor for the production of large pseudobulbs that result in best flowering. A great quantity of water must be stored by the plant in a relatively short growing season. Water heavily as new leaves are forming. As the pseudobulb matures, gradually reduce watering frequency. Leaves will yellow and drop. At this time, watering should be stopped completely until new growth begins. Water during this dormant period only if the pseudobulbs shrivel severely.

**Humidity** should be 40 to 60 percent. This can be provided in the home by placing the plants on trays of gravel, only partially filled with water so that the plants do not sit in the water. Air should always be moving around the plants to prevent fungal or bacterial disease, especially if high humidity or



cool temperatures exist. In the greenhouse, the humidity is best increased by use of a humidifier. Evaporative cooling increases humidity while cooling the air.

**Fertilize** and water regularly to produce strong pseudobulbs. Use a highnitrogen formulation (such as 30-10-10) while plants are in active growth, slowly tapering off as pseudobulbs form. A blossom-booster formulation (such as 10-30- 20) should be used in the autumn, except for plants that normally bloom in the spring. Frequent applications of a dilute concentrations of fertilizer are more effective than occasional applications of strong concentrations.

**Potting** should be timed to coincide with the initiation of new growth, usually in the spring. New roots will be produced quickly at that time, and plants will experience minimal setback. These plants have vigorous root systems and require a rich, moist potting medium during the growing season. Many growers bare-root their plants during the resting period to ensure dryness at that time. Fine-grade media are common for smaller pots; medium-grade media are used only in larger pots. Sphagnum moss is used successfully for plants in many areas, as it provides tremendous water- and fertilizer-holding capacities. Some plants can be grown on slabs of tree fern or other material, which makes it easier to keep them dry during dormancy; however, it is harder to keep them moist while growing. When well grown, these orchids can be divided down to one mature pseudobulb and will then flower on the next mature growth. Spider mites are a common pest of these orchids when in leaf. Control spider mites by keeping humidity high or spraying with recommended miticides.

# Cattleya Culture Sheet

## KAT-lee-ah



Cattleyas are among the most popular orchids. Their culture is often used as the basis for comparison with other types of orchids. Cattleyas and their related hybrids come in many colors, shapes, forms and sizes. Culture varies only slightly among most of these. This sheet is a general guide to basic cattleya culture. Like many other cultivated orchids, cattleyas are epiphytes, or air plants. They have developed water-storage organs, called pseudobulbs, and have large, fleshy roots covered with a spongy, water-retentive velamen. They are accustomed to being dry at the roots between waterings, and therefore should be potted in freedraining media.

**Light** is the most important factor in growing and flowering cattleyas, whether in a greenhouse or in the home. Bright light to some sun should be given to the plants, with no direct sun in the middle of the day. This means an east, shaded south (as with a sheer curtain) or west window in the home, and 50 to 70 percent full sun in a greenhouse (3,000 to 5,000 foot-candles). Leaves should be a medium green color, pseudobulbs erect and requiring no staking.

**Temperatures** should be 55 to 60 F at night and 70 to 85 F during the day. Seedlings should have night temperatures five to 10 degrees higher. A 15- to 20-degree differential between day and night is recommended, especially for mature plants. Higher day temperatures can be tolerated (up to 95 F), if humidity, air circulation and shading are increased.

**Water** should be provided in two ways: in the pot by watering and in the air as humidity. Watering in the container is dictated by many criteria: size and type of the vessel, temperature, light, etc. Mature cattleyas need to dry out thoroughly before being watered again. Seedlings need more constant moisture. Compare the weight of a dry pot of the same size and type of mix; it can indicate if a plant needs water by the relative weight - light means dry, heavy means wet. If in doubt, it's best to

wait a day or two until watering. Plants in active growth need more water than plants that are resting. Water below 50 F may injure plants, as will water softened by the addition of salts.

**Humidity** should be 50 to 80 percent for cattleyas. This can be provided in the home by placing the plants on trays of gravel, only partially filled with water so that the plants do not sit in the water. Air should always be moving around the plants to prevent fungal or bacterial disease, especially if high humidity or cool temperatures exist. In the greenhouse, the humidity is best increased by use of a humidifier. Evaporative cooling increases humidity while cooling the air.

**Fertilize** on a regular schedule. In fir bark, a high-nitrogen (such as 30-10-10) formulation, or a similar proportion, is used. Otherwise, use a balanced fertilizer. When in active growth, plants need fertilizer at least every two weeks, and when not actively growing, once a month. Fertilizer can also be applied with every watering at one-quarter the recommended dilution. Thorough flushing with clear water every month is recommended to prevent the buildup of fertilizer salts.

**Potting** is necessary when the rhizome of the plants protrudes over the edge of the pot or the potting medium starts to break down and drain poorly (usually after two to three years). It is best to repot just before new roots sprout from the rhizome, after flowering or in the spring. Mature cattleyas are usually potted in coarser potting material than are seedlings. Until a plant has at least six mature pseudobulbs, it generally should be put into a larger pot and not divided. If dividing a plant, three to five pseudobulbs per division are required. Select a pot that will allow for approximately two years of growth before crowding the pot. Pile mix against one side of the pot and cut off any dead roots. Spread the firm, live roots over the pile, with the cut rhizome against the side of the pot. Fill the pot with medium, working it around the roots. Pack firmly and stake if necessary. Keep the plant humid, shaded and dry at the roots until new root growth is seen.

# Cymbidium Culture Sheet

sym-BID-ee-um



These orchids are prized for their long-lasting sprays of flowers, used especially as cut flowers or for corsages in the spring. There are two main types of cymbidiums - standards and miniatures. Where summer nights are warm (above 70 F), only miniatures can be recommended, because many are more tolerant of heat and able to flower in warmer weather.

**Light** is important for growing cymbidiums. Coming from cool and bright areas in Asia, they need high light but cool temperatures. In many southern climates, high summer temperatures, especially at night, may prevent the plants from blooming. The maximum amount of light possible, short of burning, should be given to the plants. This means only light shade during the middle of the day, or about 20 percent shade. In cool areas (such as coastal California), full sun is tolerated. Leaves should be a medium to golden green in color, not dark green.

**Temperatures** are another critical factor in flowering standard and miniature cymbidiums. During the summer, standard cymbidiums are usually grown outside in semishade, where day temperatures should be 75 to 85 F (or more), but night temperatures in the late summer to autumn (August to October) must be 50 to 60 F to initiate flower spikes. Optimum temperatures in winter are 45 to 55 F at night and 65 to 75 F during the day. When plants are in bud, temperatures must be as constant as possible, between 55 and 75 F. Miniatures can stand temperatures five to 10 degrees higher than standards and still flower. Most cymbidiums can tolerate light frosts and survive, but this is not recommended. Bring them inside when temperatures dip to 40 F. In mild climates, they can be grown outside year round. A bright and cool location inside is best for winter months.

**Water** to provide a constant supply of moisture to cymbidiums, which are semiterrestrial plants. They generally produce all their vegetative growth during the spring and summer and need the most water during that period. Water heavily during the growth season, keeping the potting material

evenly moist. Reduce water when the pseudobulbs complete growing in late summer. Keep barely moist during the winter.

**Humidity** outdoors is usually sufficient during the summer, except in dry climates, where evaporative cooling in a greenhouse is necessary. Keep humidity at 40 to 60 percent during the winter, especially if plants are in bud. Keep the air moving to prevent fungus (*Botrytis*) from spotting the flowers.

**Fertilizer** at the proper time to help cymbidiums flower. During the growth season (spring through late summer), high-nitrogen fertilizer (such as 30-10-10) is used. In late summer, use a high-phosphorus, blossom-booster fertilizer (such as 10-30-20), to help form bloom spikes. Fertilize at full strength every week to two weeks. In winter, fertilize once a month.

**Potting** is usually done in the spring after flowering, usually every two years or when the potting medium decomposes. Shake all of the old potting mix off the roots, dividing the plant if desired. Pick a water-retentive potting mix; medium-grade fir bark with peat moss and perlite is a common mix. Select a pot that will allow for at least two to three years of pseudobulb growth before crowding the pot, while planning on placing the active growing pseudobulb(s) of the division farthest from the side of the pot. Spread the roots over a cone of the mix in the bottom of the pot and fill the container with medium, working it among the roots, tamping firmly. Single backbulbs need not even be placed in mix until new growth and roots are noted. Keep shaded and warm until new growth sprouts, and pot as above.

# Dendrobium Culture Sheet

den-DROH-bee-um



Dendrobium is a diverse genus of orchids with different cultural needs. Many go through a growth phase and then a rest phase during the course of one year, and must be given water and temperature to match these periods of growth and rest. Flowers can last one day to many weeks, depending on the type. Owing to the extreme diversity of the genus, we have categorized culture according to the following main types:

**PHALAENANTHE** Evergreen for several years, with thin, tall pseudobulbs, terminal inflorescences, usually appearing in the autumn or twice a year (see culture). Species such as *Den. affine*, *Den. bigibbum* (*phalaenopsis*), *Den. dicuphnum* and *Den. williamsianum*.

**Culture** Grow warm year round (see below); 60 F nights; water and fertilize heavily when roots appear from new growth; medium light; reduce water and fertilizer after growth finishes. If a short (three- to four-week), cooler (55 F) dry rest is given, and then plants are warmed again (60 F minimum), another growth may mature during winter and flower in the spring. Treat this growth as a summer growth cycle. These grow well with *phalaenopsis*, except for the rest period. Plants will go deciduous if grown too cool and dry.

**SPATULATA** (Antelope Type) Evergreen for several years. Most are large, vigorous plants with long-lasting flowers in summer to several times a year. Species such as *Den. antennatum*, *Den. canaliculatum*, *Den. discolor*, *Den. gouldii*, *Den. johannis*, *Den. lineale* (*veratrifolium*), *Den. stratiotes*, *Den. strebloceras* and *Den. taurinum*.

**Culture** Warm all year (60 to 65 F nights, 75 to 90 F days); no rest period; can be kept cooler in winter if dry; medium to high light.

**DENDROBIUM** Most of the plants are pendulous, with leaves all along the canes that most often drop with onset of cooler, drier weather. One to five flowers per node are borne from the nodes of the leafless canes in midwinter through early spring.

**Group 1** Species such as *Den. chrysanthum*, *Den. friedricksianum*, *Den. nobile* and *Den. wardianum*

Culture Growth period in summer; give warmth, water and fertilize heavily from when roots appear until top leaf appears on canes. Then give high light, little or no water, no fertilizer, cool nights (40 to 50 F). In other words, forget about them.

**Group 2** Species such as *Den. anosmum* (*superbum*), *Den. crassinode*, *Den. falconeri*, *Den. fimbriatum*, *Den. findlayanum*, *Den. heterocarpum* (*aureum*), *Den. loddigesii*, *Den. moniliforme*, *Den. parishii*, *Den. primulinus* and *Den. transparens*.

Culture Same as Group 1, but winter nights 55 F. Deciduous species need virtually no water in winter.

**CALLISTA** Most are pseudobulbous plants with pendent inflorescences. Species such as *Den. aggregatum* (now properly *lindleyi*), *Den. chrysotoxum*, *Den. densiflorum*, *Den. farmeri* and *Den. thyrsoiflorum*.

Culture Summer give warmth (60 to 90 F), medium light, medium quantities of water and fertilizer. Winter keep cool (50 F nights), medium light, just enough water to keep pseudobulbs from shriveling, no fertilizer.

**LATOURIA** Leaves at top of pseudobulbs are large and leathery, inflorescence erect, flowers commonly yellow-green. Species such as *Den. atroviolaceum*, *Den. macrophyllum* and *Den. spectabile*.

Culture Same as antelope types, but cooler and drier when resting in winter.

**FORMOSAE** (*Nigrohirsutae* Type) Canelike pseudobulbs, with black hairs on leaf sheaths and pseudobulbs often apparent, leading to the popular name *nigrohirsutae*. Flowers usually white, up to 4 inches across, two to three together from near the end of the pseudobulb. Long lasting. Species such as *Den. bellatulum*, *Den. dearii*, *Den. draconis*, *Den. formosum*, *Den. infundibulum*, *Den. lowii*, *Den. lyonii*, *Den. margaritaceum*, *Den. sanderae* and *Den. schuetzii*.

Culture Intermediate to cool year round, 50 to 60 F nights, maximum 85 F days. Water and fertilize when growing; give a slight short rest (dry) when growth is completed. Keep barely moist until growth starts again.

**OTHER SPECIES** Among the popular types are *Den. linguiforme*, *Den. tetragonum*, *Den. gracillimum* and *Den. cuthbertsonii* (*sophronitis*).

Culture Depends on the plant's native environment. It is generally safe to grow them intermediate to warm (55 to 60 F at night), drying them out in winter (or as growth stops). Hybrids between sections vary in culture.



# Oncidium Culture Sheet

on-SID-ee-um



This is an extraordinarily large and diverse New World genus with an equally diverse number of habitats. Oncidiums may originate anywhere from sea level in the tropics to the high elevations of the Andes. This obviously makes cultural generalizations difficult. More specific instructions may be available from the grower. Some genera included are *Aspasia*, *Brassia*, warm-growing miltonias (often called the Brazilian type) and many of their hybrids.

**Light** needs can vary from bright to nearly full direct sun depending on the species. Most will thrive with one to several hours of sun a day. Generally, thicker leaved plants, such as "mule-ear" and "equitant" oncidiums, can stand more light. In a greenhouse, 20 to 60 percent shade is required, or about 2,000 to 6,000 foot-candles, depending on the plants. In the home, east, south or west windows are ideal. Many types of oncidiums will grow under artificial light: Four fluorescent tubes supplemented with incandescent bulbs and placed 6 to 12 inches over the plants are necessary for proper growth. Metalhalide and sodium-vapor bulbs also provide sufficient light without needing to be so close to the plants.

**Temperatures** for this group are generally considered intermediate to warm: 55 to 60 F at night, and 80 to 85 F during the day. Temperatures up to 95 to 100 F are tolerated if humidity and air movement are increased as the temperatures rise, a good general rule in any case.

**Water** requirements vary with the type of plant. Generally, plants with large fleshy roots or leaves need less-frequent watering than thin-leaved or thin-rooted plants. Watering should be thorough, and the medium should dry at least halfway through the pot before watering again. This may be every two to 10 days depending on weather, pot size and material, type of orchid and type of potting medium. Plants not actively growing should be watered less; many species have winter rest periods.

**Humidity** should be between 30 and 60 percent. Many oncidiums require less humidity than other orchids. Most greenhouses have adequate humidity. In the home, placing the plants above moist pebbles in trays is ideal.

**Fertilize** 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 should be used on plants in other media or on slabs. If skies are cloudy, applications once a month are sufficient.

**Potting** should be done when new growth is about one-half mature, which is usually in the spring. Fine-grade potting media are usually used with fine-rooted plants and coarser mixes with large-rooted plants; the standard size is medium grade. The plant should be positioned in the pot so that the newest growth is farthest away from the edge of the pot, allowing the maximum number of new growths before crowding the pot. Spread the roots over a cone of potting medium and fill in around the roots. Firm the medium around the roots. Keep humidity high and the potting medium dry until new roots form. Equitant and mule-ear oncidiums, as well as other fleshy-leaved or large-rooted plants, can be grown on slabs of cork bark or tree fern or in pots filled with a coarse, well-drained medium such as charcoal. This allows the drying between waterings that these types need.

# Phalaenopsis Culture Sheet

fayl-eh-NOP-siss



Phalaenopsis, the moth orchid, is perhaps the best orchid for growing in the home, and is also a favorite with greenhouse growers. Well-grown plants can flower often, sometimes with a few flowers throughout the year, though the main season is late winter into spring. Average home temperatures and conditions are usually sufficient. Flower stems on certain hybrids can be forced to rebloom by cutting the tip off after the initial flowering. Only healthy plants should be induced to flower repeatedly. Culture for *Doritis*, a related genus, thought by some to be conspecific with *Phalaenopsis*, and *Doritaenopsis*, a hybrid between the two genera, is the same as for pure *Phalaenopsis*.

**Light** is easy to provide for phalaenopsis. They grow easily in a bright window, with little or no sun. An east window is ideal in the home; shaded south or west windows are acceptable. In overcast, northern winter climates, a full south exposure may be needed. Artificial lighting can easily be provided. Four fluorescent tubes in one fixture supplemented by incandescent bulbs are placed 6 to 12 inches above the leaves, 12 to 16 hours a day, following natural day length. In a greenhouse, shade must be given; 70 to 85 percent shade, or between 1,000 and 1,500 foot-candles, is recommended. No shadow should be seen if you hold your hand one foot above a plant's leaves.

**Temperatures** for phalaenopsis should usually be above 60 F at night, and range between 75 and 85 F or more during the day. Although higher temperatures force faster vegetative growth, higher humidity and air movement must accompany higher temperatures, the recommended maximum being 90 to 95 F. Night temperatures to 55 F are desirable for several weeks in the autumn to initiate flower spikes. Fluctuating temperatures can cause bud drop on plants with buds ready to open.

**Water** is especially critical for phalaenopsis. Because they have no major water-storage organs other than their leaves, they must never completely dry out. Plants should be thoroughly watered and not

watered again until nearly dry. In the heat of summer in a dry climate, this may be every other day; in the winter in a cool northern greenhouse, it may be every 10 days. Water only in the morning, so that the leaves dry by nightfall, to prevent rot.

**Humidity** is important to phalaenopsis, the recommended humidity being between 50 and 80 percent. In humid climates, as in greenhouses, it is imperative that the humid air is moving. Leaves should be dry as soon as possible, always by nightfall. In the home, set the plants on trays of gravel, partially filled with water, so that the pots never sit in water.

**Fertilize** on a regular schedule, especially if the weather is warm, when the plants are most often growing. Twice-a-month applications of high-nitrogen fertilizer (such as 30-10-10) are appropriate where bark-based media are used. Otherwise, a balanced fertilizer is best. When flowering is desired, a high-phosphorus fertilizer (such as 10-30-20) can be applied to promote blooming. Some growers apply fertilizer at one-quarter strength with every watering; this is best for warm, humid conditions. When cooler, or under overcast conditions, fertilizer should be applied twice per month at weak strength.

# Vanda Culture Sheet

## VAN-dah



The Vanda Alliance is made up mostly of warm- and full-sun-growing orchids with colorful flowers. Originating in tropical Asia, they are easily grown in warm climates, where plants are cultivated outside in light shade, such as in a lath house. In climates where winters are cold, they are often summered outside, and grown inside during the winter in a sunny window, or year round in a greenhouse. Smaller growing ascocendas are best outside tropical conditions.

**Light** is a crucial factor in blooming most vandaceous plants. There are three types of vandas: strap-leaved, semi-terete and terete. The first type has broader, flat leaves, while terete types have round, pencil-shaped leaves. The semi-teretes are hybrids between the two, with an intermediate leaf shape. Terete types need full sun, and are best grown in high-light climates. In a greenhouse, give the plants about 25 to 35 percent shade, less in winter if overcast. Leaves should be a medium green, not dark green. In warm, bright climates, you can grow any type of Vanda outside (if warm) with partial shade for strap-leaved types and semi-teretes (especially in midday in summer) or inside (when cold) in a bright, south window. In climates where winters are overcast, try ascocendas. Grow them outside in summer and in full sun inside during the winter. Be careful to acclimatize plants to avoid burn.

**Temperatures** for most vandas should be warm; a minimum night temperature of 55° F is recommended. Colder spells can be tolerated for a short time if it is not windy. Optimum temperatures are 60° to 70° F at night, and a maximum of 95° F during the day. Warmer temperatures mean faster growth, which must be balanced with higher humidity, air movement, and increased water and fertilizer. Days should be warm and humid for optimum plant growth.

**Water** should be applied copiously when the plants are growing, but the roots must dry quickly.

Because of this, and their extensive root system, they are mostly grown in slatted-wood baskets, or in pots with a coarse potting medium. If their situation is warm and sunny, they may need daily watering. Water sparingly in the winter or during cloudy weather.

**Humidity** of 80 percent is ideal. In tropical climates this may be easy to obtain. In a greenhouse, this is easier to provide by using an evaporative cooler. In the home, place the plants on trays of gravel partially filled with water. Air movement must be strong.

**Fertilize** with a balanced (such as 20-20-20) fertilizer applied full strength once a week during warm weather or use a one-quarter-strength solution at every watering. During cool or cloudy weather, apply fertilizer once every two to four weeks. Use a high-phosphorus fertilizer (such as 10-30-20) every third application to promote flowering.

**Potting** should be done in the spring. Plants in baskets do not need to be repotted often. Leave them unless the potting medium breaks down. Set the plant, with the old basket intact, into a container of water to make the aerial roots more pliable, and then set plant and basket into a larger basket. For plants in pots, repot in a slightly larger pot, positioning the plant in the center. Use a coarse medium, whether fir bark, tree fern or charcoal, and work it around the roots. Keep shaded, humid, but drier at the roots until new root tips grow. Do not overpot.



## A Few Notes on Insecticide Use

Recently, I was reviewing my notes of Jim Roberts (See Note 1) 2012 presentation to the Jacksonville Orchid Society on "Growing Orchids Outside." During that presentation, Jim made a little noted comment about application of insecticide.

He said: "*Read the Instructions.*"

This is really a very important observation. Reading instructions as we all have seen, tell us about the amount of insecticide to use in a given application. However, most of us stop at that point. We shouldn't; we really need to read all of the instructions and the warnings as well.

Many will say they get it, but then go right ahead and apply insecticides with little concern about their exposure after the first time they get some on themselves and nothing happens. The truth, however, is a bit more complicated.

But first a little background. Many of you know that I retired after a career in the Army. I spent most of my time as a Chemical Officer; that is to say, an expert in the use of *chemical*, as well as biological and nuclear weapons. Moreover, my last job before joining the Army was as an exterminator applying chemical insecticides. No doubt, many will say: ok, I get the connection, but most don't. The important thing to know is that the "nerve agent" (See Note 2) series of chemical weapons are simply insecticides for bigger bugs - *People!*

Many of the more effective insecticides belong to a class of chemicals known as organophosphate compounds and were first discovered shortly before World War II by German chemists looking for better insecticides. The good news for us as insecticide users is that the ones we use are far weaker than those used as nerve agents. But here's the problem, they are still dangerous. Many of these compounds act as a cumulative poison. A little bit today won't hurt, but who knows about tomorrow? Moreover, the medical research is still not complete about sub-critical dosages and their effects on human health.

Ever notice a statement on some insecticides that "*atropine* is antidotal?" Atropine is the first of several antidotes administered to counter-act the effects of nerve agent poisoning!

So what to do? I'm not a "licensed professional," but like everyone else, do use insecticides. Here's my method, use it if you will, without warranty. My approach is intended to minimize my exposure:

- Wear a charcoal-based respirator (charcoal-filled)
- Wear clothing that leaves little to no exposed skin
- Wear a hat
- Wear wrap-around eye protection.
- Wear chemical proof gloves
- Apply insecticide with the wind behind you so that it blows any excess away from you
- Don't apply around gardens or other food stuffs
- Don't allow the overspray to hit gardens, foodstuffs, others, children, or pets.
- Immediately upon finishing, wash your hands and exposed skin with cold water (which lessens likelihood of absorption)
- Immediately upon finishing, separately wash your clothes and exposed articles.
- Use only one sprayer for insecticides, don't use it for anything else (You don't want to spray high-strength insecticides on your garden by mistake!).

- Rinse-out your sprayer after use to minimize exposure later.

This seems like a lot to go through just to use insecticide. There is. Having been in the business of killing little bugs and knowing how to defend against those trying to kill *us bigger bugs*, I choose to err on the side of caution.

Note 1 - Roberts, J. (2012, April 10). Growing Orchids Outside. Presentation to the Jacksonville Orchid Society. Jacksonville, Fl. Jim Roberts is the owner of Florida Sun Coast Orchids; <http://floridasuncoastorchids.com>.

Note 2 - The Wikipedia article on nerve agents is pretty good if you'd like to learn more. See [https://en.wikipedia.org/wiki/Nerve\\_agent](https://en.wikipedia.org/wiki/Nerve_agent).

## **Hydroton is BACK!!!**

Hydroton is available again, and in the Jacksonville area!

Last weekend I intended to replace my Hydroton substitute from a local supplier. On a whim, I checked a couple of the listings for hydroponic supplies and was pleasantly surprised when I found Urban Gardens of Jacksonville, just off Edgewood Avenue carried Hydroton in 50L bags for \$33.95.

Upon arriving, I found Urban Gardens to be in a small, but packed, warehouse. Local orchid growers will find them of interest not only for Hydroton, but large bags of Perlite, and net-pots as well. The good news is also that we no longer have to make the trip to the Orlando area for these supplies!

You can find Urban Gardens at: <http://www.ugjax.com> and on Facebook at <https://www.facebook.com/ugjax>.

Their local address is 1185 Talbot Avenue, Jacksonville, FL

Google Maps at: [https://www.google.com/maps/@30.3076691,-](https://www.google.com/maps/@30.3076691,-81.7146685,3a,53.1y,27.21h,84.26t/data=!3m6!1e1!3m4!1s-JMwtw723ybfkao8gNcxkw!2e0!7i13312!8i6656)

[81.7146685,3a,53.1y,27.21h,84.26t/data=!3m6!1e1!3m4!1s-JMwtw723ybfkao8gNcxkw!2e0!7i13312!8i6656](https://www.google.com/maps/@30.3076691,-81.7146685,3a,53.1y,27.21h,84.26t/data=!3m6!1e1!3m4!1s-JMwtw723ybfkao8gNcxkw!2e0!7i13312!8i6656)