



**St. Augustine Orchid Society**

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## **Fall Preparations**

by Sue Bottom, sbottom15@hotmail.com

The welcome transition to fall is upon us, the temperatures are starting to moderate and the humidity is going down. Our orchids are responding by entering their fall growth spurt when you see new green root tips start to emerge. If you have any plants that need repotting, this is your last chance this year. Enough of the growing season is left for them to get re-established. You may increase watering a bit during this brief period as the lower humidity allows pots to dry out more quickly.



1. The hoophouse is empty in summer; no plants are allowed. It can be weeded and sanitized before plants are moved in the fall.



2. If the hoophouse was used during the summer, there would be no room for the orchids and tropicals when the cold weather rolls around.

**Clean Up Your Plants.** Use the delightful fall months to spend some quality time with your plants. Inspect each plant individually and clean it up in advance of moving it to its winter home. Start at one end of your growing area and plant by plant, remove dead flower spikes, any unsightly leaves, etc. Give them a bath to make sure that you are only bringing in your plants, and not any critters. Spray them with a hose end sprayer set remove any spider webs, etc. Clean off leaves with lemon juice or white vinegar to remove the messy buildup of minerals on the leaves.

**Drenches.** This is a good time to practice some preventative maintenance. You can mix up a jug of suitable and compatible chemicals and pour it through the pots to eliminate some potential problems.

**Ants and Cockroaches.** You do not want to introduce ants and roaches into your porch or home for the winter. A Sevin drench can help eliminate these pests.

**Sucking Insects.** Remove sheaths to reduce the number of places that insects have to hide. Watch for signs of scale and mealy bugs, any kind of white fuzzy mass. If you do find any annoying critters, you can treat small spots with rubbing alcohol or spray all the plant surfaces with a suitable insecticide. Alternatively, you can add one of the systemic



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insecticides like acephate (trade name Orthene) or imidacloprid (sold sometimes as Tree and Shrub) to your insecticide jug and pour through the pots to be absorbed into the plant and kill these insects from the inside out.

**Sprays.** You can spray plants while they are still outside to prevent problems during winter. Just make sure to make sure chemicals are compatible and follow personal protection guidelines.

*Pests.* You can also consider spraying with one of the summer oils to smother pests, spraying upper and lower leaf surfaces. This will also remove some of the hard water marks so your leaves will be shiny. If you have a problem with mites, use one of the combined miticide-insecticide products.

*Diseases.* A spray with one of the broad spectrum fungicides containing quaternary ammonium compounds (Phyosan, Consan, Green Shield) or, for nonsensitive genera, copper, is good preventative medicine. If you have or have had specific problems, select a fungicide that has targeted effectiveness for a given disease.

**Winter Homes.** The phalaenopsis and most of the cattleyas are grown year round in the greenhouse; other plants grow in outdoor shade houses. Most of these outdoor growers are moved into the heated hoop house or greenhouse before the cold weather. The hoop house sits empty all summer so there is plenty of time for it be cleaned, weeded and sterilized prior to moving plants inside, and of course, the heater and spray system are checked for functionality.

**Prep Plants.** Evaluate how well your plants grew during the summer months and try to identify things you wish you had done differently. My general observations for this growing year are:

*Vandaceous Orchids.* The vandas all grow in a sunny hoop house with an automated overhead spraying system that saturates the roots and leaves for 10 minutes daily, often with a second spraying. To get the vandas ready for their winter move, they are all sprayed, roots and leaves, to remove the algae. You can use quaternary ammonium compounds (Consan, Phyosan, pool algaecide), and you may have to spray twice. Then water blast the roots to clean them up. If the wooden baskets are deteriorating, replace them with S hooks and attach using zip ties. If the roots are dead or the bottom stem has become woody, you can cut away the stem up to healthy tissue. Look at the stem for signs of fusarium, the characteristic reddish purple band around the outside edge of the stem. If you find fusarium, keep cutting until you find clean tissue, sterilizing your shears between each cut. If you find the sandpapery purple to black diamond shaped lesions on the leaves characteristic of *Phyllosticta/Guignardia*, remove the infected leaves to prevent the spores from spreading. A final spray with thiophanate methyl (Thiomyl, Banrot, Cleary's 3336) and the plants are prepped for winter.



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*Bulbophyllums*. The bulbos all grow in a shadier hoop house with an automated overhead spraying system that runs for 10 minutes each day. These bulbos are mostly grown on horizontal plaques or baskets with some Spanish moss draped around them. New additions also had a thin layer of long fibered sphagnum moss under the plants to help get them established. While inspecting these plants, the sphagnum moss had lots of mold and algal growth, so it obviously stayed too wet, even for the water loving bulbos. This sphagnum was water blasted away from the plants and some Spanish moss draped over the top for water retention. A protective spray with copper and the plants are ready for their move to the heated hoop house.



3. *Catasetums* cram a year's worth of growing into about 8 months, so they like plenty of light, air, water and fertilizer during the growing season.



4. *Catasetums* endure the droughty conditions in their natural habitat by shedding their leaves until the rainy season returns.

*Catasetums*. The *Catasetums* are in their glory during the summer and early fall. They are growing in the shade house under 50% shade cloth, hanging in clay pots filled with Styrofoam in the bottom and Sphagnum moss on top. Many are blooming for the third or fourth time this year, and a very few have yellowing leaves. An inspection reveals a few keikis growing on some pseudobulbs and upon closer inspection, the mother bulbs were soft and rotting. The soft bulbs were removed and the remaining plant returned to the shade house, and the keikis potted up while there is still time for them to become established. Spider mites do not seem to be much of a problem in the shade house, perhaps in part because of the wet early summer we had. These plants require no special preparations this time of year except to clean up fallen leaves and flowers. As the leaves yellow and the plants begin to enter the dormancy, they are moved to a separate area so they will not be watered. The other plants are coaxed into dormancy, first by eliminating the fertilizer in their diet in October and then allowing more time between waterings. If they have not shed their leaves by mid-December, water is withheld to force dormancy.



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Catasetums, clowesias, cycnoches and mormodes as well as a few others like calanthe are dormant during the winter months. They need no water at all until the new growth starts in the spring. Find a place to group these together where you know you will not water them. Some people turn the pots on their sides to remind themselves.



5. The pendent seminobile dendrobiums have beautiful green foliage by summer's end.



6. The pendent soft canes often drop their leaves during the winter and develop buds in early spring.



7. They put on quite a show in spring blooming from leafless canes, like this Den. cucullatum.

*Dendrobiums.* You can divide your dendrobiums into two general groups, those that enjoy a coolish, dryish winter and those that grow well with cattleyas. [Culture tips](#) are available on the SAOS website. Keep those plants that grow similarly or mark the pots with different colored tags so that you will know that they can be watered or not watered and fertilized or not fertilized according to their needs. The dendrobiums all grow under the shade house receiving rainwater or being water on a daily or every other day basis. Their winter cultural requirements are quite different.

The spring blooming Dendrobium section dendrobiums (the upright nobiles and pendent seminobiles) and the Callista section with the grape cluster flowers all enjoy a coolish, dryish winter rest. Some of the Australian dendrobiums like kingianum and speciosum can also tolerate cold temperatures These dendrobiums look great after the summer rains, with abundant growths. Some few leaves are starting to yellow by late summer/early fall. Their vegetative growth phase is over for the year and fertilizer can be restricted. They will be moved under the eaves of the potting shed by the end of November to limit rainfall and they will be watered only once or twice a month; some people restrict all watering from Thanksgiving until after flowering in the spring. They are moved into a heated structure only if temperatures are projected to dip into the 35 to 38F range.

The rest of the dendrobiums are grown like cattleyas. Take a few moments to inspect the plants. They spend so many years in the same pots that weeds and ferns can easily become established. Either pull the weeds or spray/paint the weeds with an herbicide containing Diuron (Karmex, Parrot, and other trade names). Look at the leaves for evidence of the leaf spotting Cercosporoid fungi. Remove and destroy infected leaves and



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spray the plant with a suitable fungicide such as one containing chlorothanilil (trade name Daconil) or thiophanate methyl (trade names Banrot, Cleary's 3336 or Thiomyl). These dendrobiums are grown in the heated greenhouse along with the cattleyas.



8. This dendrobium leaf is infected with one of the leaf spotting Cercosporoid fungi. This seems to be contagious in dendrobiums, remove the leaf.



9. This is the bottom of the same dendrobium leaf. You can see how the chlorotic spots on the top match up with the brown splotches on the bottom.

*Phalaenopsis*. The phals grow year round in the greenhouse. They benefit from an antibacterial spray with copper before the cold weather arrives. They are top dressed with a little Purely Organic or timed-release fertilizer in early fall to enhance their spring blooms. *Phalaenopsis* require a significant day to night temperature change to initiate spikes. We usually get our first cold snap around Halloween; allow the plants to chill during this cool weather with nights in the upper 50s F as long as the day temperature rises above 80F. Leave phals outdoors or place them next to an open window during this cool weather. After 2 or 3 weeks of exposure to this drop in nighttime temperatures, phals should be moved to their winter homes. They should be on schedule to spike by Christmas and have buds opening by Valentine's Day.

Have a plan to protect your plants during the winter months and prepare your plants and the winter growing area during the fall transition. Do a little research to understand the cold tolerance of your different plants; [guidelines](#) are available on the SAOS website. In general, vandas, phals and *phalaenopsis* type dendrobiums are the least cold tolerant so get them situated before night time temperatures drop below 55F. Most of your other plants can easily tolerate nighttime temperatures to the 45 to 50F range. The cool fall weather is a great time to spend quality time with your plants. By the Thanksgiving holidays, your plants should all be situated in their winter homes, waiting for the next growing season.