American Orchid Society
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FORT LAUDERDALE ORCHID SOCIETY

N • E • W • S • L • E • T • T • E • R September, 2009

Ken Sump Will Present Program on *B. nodosa* and Its Hybrids

Summer and early fall are the prime seasons for these tough and wonderful plants to produce long lasting and frequent blooms. You won't want to miss Ken's September 14th program.

You also don't want to miss buying raffle tickets to win some of these special plants which are the specialty at Mickey's Orchids.

With luck Gale will be available for a quick culture workshop and will have some of these 'night ladies' and their hybrids for sale. (*Brassavola nodosa* is known as 'Lady of the night' because her pungent, and sweet perfume advertises her availability not unlike other night ladies.)

Broken Finger Pity Party

I learned the hard way not to wrap a dog lead around a finger when a lizard may cross the path. Typing is now slow, this issue will be mostly recycled or borrowed items and not recently typed . I found that one society had used my old article on aspirin, and I have included it since I still use aspirin.

From Wilma and times that a few weeks were skipped, I found that orchids seem to become **addicted to aspirin** and pop out with microbial diseases with out their fix. Don't mix aspirin with your fertilizer unless you fertilize on a weekly schedule. Also do not exceed the amount suggested. D.H.

Members Fun and Spending Spread Out

October 12th - Auction
November 7th - First bus ramble south
December 13th - Party at Brooks
January 14-17th - Preview party and show
February- Home ramble, day not chosen
Spring 2010- rambles south and overnight

Of course you are preparing for the **auction** by saving some money and by making divisions of any plants that you can donate. It will help the auctioneers and buyers if you have clear name tags with flowering data.

The ramblers are already yearning for another day of **bus ramble** fun. Join us and get your $25 bus fee into Bob Henley early to be sure you get a seat on the bus. The bus will leave Cardinal Gibbons student parking lot at 8:00 AM and will return by 5:00.

The 47th Street parking lot is located west of Bayview Drive, which is just north of the Intracoastal and off Commercial Boulevard. To reach the student parking lot turn west for a block on 47th Street. You will need to bring a bagged lunch, water, a rain poncho, and an ability to lie about how you don't plan to spend a dime.

Buy The 19th WOC Proceedings At Our September Meeting

Those who ordered a copy of this beautiful book early had to pay shipping and handling which reflected the weight of 500+ pages on expensive heavy paper. The book cost is $125 and worth every penny.

There are wonderful pictures of the displays, of orchids and maybe 50 pages of pictures of people you know. Bruce Muntz was one of the photographers, and you can bet FLOS members are pictured often.

My favorite part of the book is the 145 pages of information provided by the speakers. Plan to pay for your copy with a check made out to FLOS or with cash.

August Program Review

Carol De Biase's program was wonderful. Whether or not you grow miniature orchids, it was fun to see them and learn about them. Some bottom-line cultural advice that applied to many of them included these tips:

1. Give them just a few hours of only morning sun
2. Water early and let them dry out by night.
3. Most grow well plaqued, and twig culture works.
4. While good air movement is usually best, you might try some cool or intermediate growers in a terrarium.
5. Most, or all, *Dracula* and most *Mastevallia* are too cool growing for here.

Now a brief run down on what we saw that may grow here. Look for (*) when the plant is especially well suited for here.

Angracum distichum was covered with blooms.
Bunochilus smaragdynus is terrestrial which is unusual.
Ceraatocentron fesselii is an orange-flowered member of the *Angracum* family.
(*) *Ceratostylis rubra* has bright orange flowers and grass-like leaves.

Carol showed us four *Dendrobiums* which were *cucumerinum* with a foul smell, *cyancentrum* with blue flowers, *kingianum* which can grow into a giant species, and *moniiforme* which was white and nice.
Diuris longifolia is rightly called the donkey orchid,
Echinosopala stonei has a fuzzy brown floral head.
Epidendrum purpan is called the bumblebee orchid.
(*) Isochilus lineraus is a grass orchid which needs more water than most miniatures.
(*) *Leptotes bicolor* has bell-like white flowers and its seed pods are used in Brazil to flavor ice cream.
(*) Masdevallia pumila will grow here, the flowers resemble small white birds.
Maxillaria sophronitis was also treasured and owned by just the Samuri in Japan as was *(*) Neofinetia falcate* which has a pleasant odor.
(*) *Oberonia japonica* has many tiny white flowers with orange lips growing on a 3-4" spike.
Ocytomeria juncifloria produces yellow flowers in deep shade.
Platystele ovatilabia has translucent flowers and unlike most needs to be kept moist. *(Lucky raffle ticket holders won this one.)*
(*) *Pelanthra insectiferia* needs vanda-like culture.

Carol showed us five *Pleurothallis* which were *chloroleucea* which produces a tuft of green flowers below an erect leaf, *grobyii* which has nice yellow flowers, *imnersa* which has deep yellow fuzzy flowers, *nossan* which has flowers resembling small birds, and strupifolia flowers with white curled sepals or petals.
(*) Polystachya paniculata is vanda-like in growth.

Program review continued:

Restrepia antennifera has a big yellow lip.
Restrepia striata has upside down flowers.
Stelis pubensens grows on rocks in a nature.
Zootrophion dayanum flowers resemble a duck.
(*) Zygostates alleniana is a translucent beauty to grow on a twig.

Thank you Carol, and thanks to lap-top providers Jane DePadro and Chip Jones. In a freak accident Chip broke his toe getting his computer ready to bring to the meeting. Ouch and real pity. D.H.

August Ribbon Winners

Allen Cogar /blue/ *Phal. violacea x sib, Phal. cornu-cervi* 'alba; *Chlorochilum (species not identified)*
Margarita Galabova/blue/ Bulb. Valley Isle 'Queen'
Vicki Hallock /blue/ *Onc. superbum*
Chip Jones /red/ B. Jimminy Cricket x *B. glauca*
Saira Kaizad-Niles /blue/ Paph. Gina Short
Joan Lillagore /red/ Lc. Hawaiian Granbury x (Blc. Orglades's Full House x C. Angle Walker)
Tin Ly /blue/ Ascda. Alexander Hatos, Blc. Mem. Vida Lee 'Limelight'
Tony Millet /red/ Blc. Steve Stephenson, C. Penny Kuroda x Dia. Chantilly Lace.
Betty Oldack /blue/ Alcra. Dorothy Oka 'Dark Waters'
Ray Ratliff / blue/ *Bulb. Putidam*
Helen Rivenbark/ culture/ *Aerides quinqueviera /red/Trgl. philippinsis, Trgl. Brachiata*
Kaler Westfall /red/ *Gram. scriptum, Gram. scriptum* Var. citrinum, Paph. Denali x Auvian Blanc, Miltassia Olmac 'Kanno' HCC/AOS
Mary Schol /red/ Ascda Suksamran 'Sunlight'

Note to some blue ribbon winners: Sorry we ran out of ribbons, but you should return the whites for blues next month.

Appreciated Refreshment Providers

Helen Rivenbark, Barbara Blauschild, Ray Ratliff Carrie Ackerman, Nora Dyke, Ginny Salus, Grace Vivino, Doris Pearson, Zoe Bejar, Vicki Trank, Sarah Mitchell, Lisa Davis, Polly Fletcher, Janett McMillan

Then, Now, and Later

* When Vizcaya was built, 1/10th of the people in Miami worked on building it.

* Broward is the 15th largest county in the country.

* Our January speaker is from Carmela Orchids. How great is that?

Culture Tips for Leafless Orchids

By Ray Ratliff

"The first thing to know about my collection is that I am completely fascinated by these leafless orchids. I made an investment in a pump and misting system that is totally dedicated to this particular group of plants. It was not cheap, but for me, it was money well spent considering that some plants have cost over $100 for a large seedling.

Water/Moisture:

Moisture is the key. I killed a half dozen of these babies before I installed my misting system. The misting system made all the difference! I bought a diaphragm pump (from Pro Mist) and use the .8 gph plastic mist head from Home Depot. My entire collection of ghost orchids (13 different species in all from 5 different genera) are misted 3 times a day for two minutes at a time (8am, 12noon, and 4 pm). I adjust the last misting as our day light hours change so that the plants are not wet at night. I use city of Hollywood tap water in my pump's reservoir. If you were using well water, maybe distilled or R/O water would be a better choice. **I keep a mount covered in moss as an indicator of whether or not the plants are getting enough moisture.** (dry moss = too little water, vibrant green = just right.) (*Editor's note: Good idea for any type of collection.*)

Light:

I have them growing next to my *Vandas*, the difference is that they have a bit of 50 or 60% shade cloth over the top of the shelving unit. I have noticed that the roots of some of the plants near the top look a little burnt, but what doesn't kill them will make them stronger.... Besides I keep all the really expensive plants down lower.

Air:

I have my *D. lindenii (ghost orchid pictured in the newsletter)* in a corner that is protected on 2 sides from strong air movement and it is covered with Spanish Moss to keep the roots from drying out too quickly.

Fertilizer:

I fertilize with the same fertilizer as for all my other orchids. I use Southern Ag. 13-2-13. I usually spray with the same concentration (1 tablespoon per gallon of water) as I do my *Vandas*. I believe that since the ghosts are watered so frequently, the excess salts are not such a problem. Occasionally, when I remember, I give the leafless collection a sprits of Super Thrive.

Mount:

All my ghost orchids are mounted on either cork or wood. Whatever the surface it needs to be rough enough for water to collect and slowly evaporate. I am hoping to get a flask of Chilos in the near future and I want to try them on a piece of stone that sits in water.

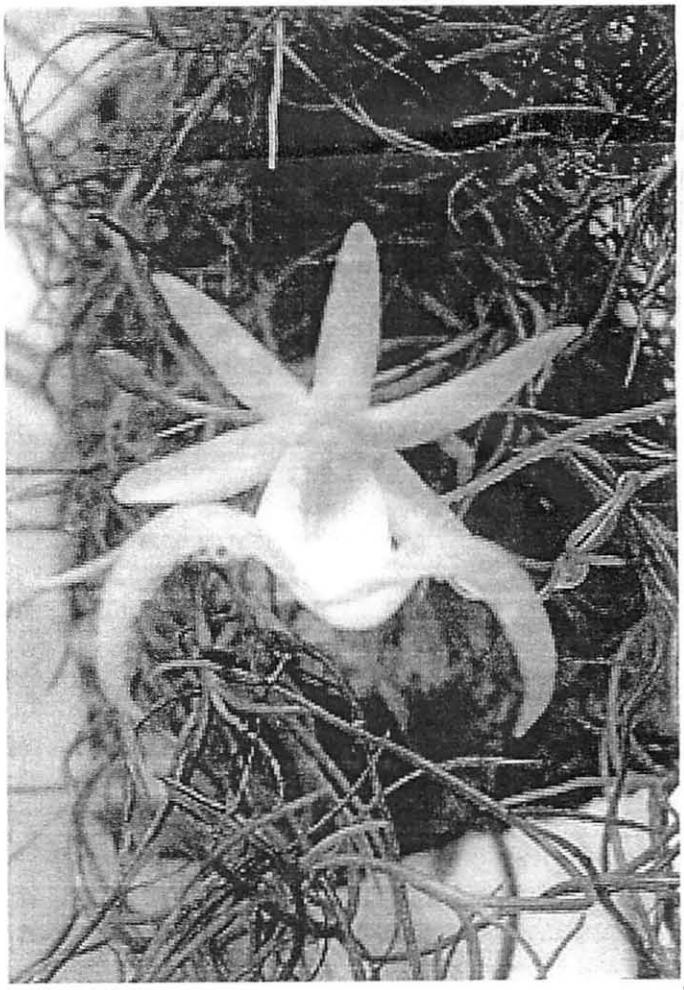
Leafless Orchids Continued:

Pests:

Scale is the bane of my ghost orchids ' existence! These sap sucking insects kill off my new roots if I do not keep an eye out for them. Those awful black ants bring them in. A little rubbing alcohol or soapy water and a **VERY SOFT** tooth brush will get rid of them. I do not use any of the systemic pesticides as I do not want to kill off anything in that particular collection. All the rest of my orchids receive the cancer causing stuff to keep pests under control.

Additional tips

If you want to grow ghost orchids start with Chilos. (*Chiloschrista)* They are cheap and readily available from several vendors. If you manage to keep them alive after a year move on to *Solenangis, Microcoelia, Dendrophylax,* or any of the other 25 or so genera of leafless orchids. The other genera are so incredibly difficult to find that once you have found them, it will kill you to see them die (not to mention the cost of replacement! "



This is Ray's *D. lindenii* which he had planned to bring to our August meeting. The flower was pollinated and faded on Sunday before our Monday meeting.

Controlling Orchid Viruses

The Cast of Characters:

Cymbidium mosaic virus (CyMV) is the most prevalent and widely distributed orchid virus, found world wide and in almost all kinds of orchids.

Odontoglossum ringspot virus (ORSV) like CyMV is common in cultivated orchids but also like CyMV is never found in wild orchids.

There are other minor players, but they are spread by aphids and the two above are spread by man. The longer an orchid has been in cultivation, the greater the chance that it has been contaminated.

So far, so scary, but the drama can have a happy ending!

How to maintain a virus free orchid collection:

One. Use new sterile media when repotting plants. Use clean pots, clean wire, and clean pot clips. Any cutting should be done with a sterile blade, soaked in TSP, or with a new razor blade.

Two. Remember your hands can spread contamination. Wear smooth latex gloves and dip your gloved hands in TSP or 10% bleach after you cut into any orchid. Discard and change gloves often.

Three Spray down your growing benches with 10% bleach or a saturated solution of TSP.

Four. Remove any roots or debris that might be stuck to the benches.

Five. It is best if plants do not touch each other when side by side, nor should hanging plants drip on lower plants

Six. Destroy virus infected plants, including the pot. Burning is best. When you suspect that a plant has a virus, remove it from your collection and have it tested or let it stay in your hospital until its next bloom gives you a clue.

Seven Work on your healthy plants first, and your less robust plants last.

Eight If you smoke know that Tobacco Mosaic Virus (TMV) is a close relataive of ORSV and can cause local lesions, but does not move systemically through orchids.

Nine. Maintain good air circulation, avoid overwatering during cooler times. Poor circulation and standing water on leaves promotes fungal and bacterial infections which will weaken your plants.

Ten. Keep an eye out for aphids and destroy them.

Eleven Buy plants from growers with good sanitary practices, or isolate new plants if you are unsure.

Identifying a sick plant

Color break in orchid flowers and certain leaf distortions (Check your copy of **Orchid Pests and Diseases.**) are good clues that your plant is infected. But some plants can have a virus with more evasive symptoms. Are the new growths smaller than the old? Has a plant that once bloomed regularly stopped blooming, or is it skipping some blooming seasons? Are the blooms smaller? Is the plant just not as robust as it once was?

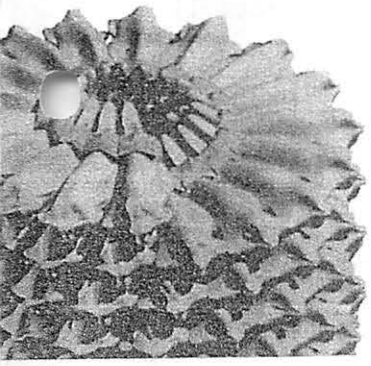
You should probably isolate these non robust plants. Have them tested if they are your favorites, but if they are not all that special, maybe it is best to destroy them. Before you make this decision, think about your culture. If most of your plants are robust and you have been repotting and fertilizing on a regular schedule, then the puny plant is probably infected. When in doubt throw it out. Read this book in our library.

Wisler, G.C, **How to Control Orchid Viruses.** 1989. Maupin House Pub. Gainesville, FL chapters 1-3

Editor's note. Today ORSV is usually called TMV-O since it is really just a strain of tobacco mosaic virus. Plant viruses have RNA centers, the hardest to control.

*Editor's note: I used this information in 2004 and tried to update with little luck. Things to add: 1. **Google** Orchid virus and the Brisbane Orchid Society has good pictures of infected leaves. 2. **Ken Slump's "V Word"** article in the July Orchids may make you less afraid but electron microscope testing is the only sure way to know whether a plant is infected..*

More On Viruses



Artist's sketch of the end of a mosiac virus. Note ruffled protein coat and inner RNA core. This one stunts tobacco plant growth and was the first virus shown to exist.

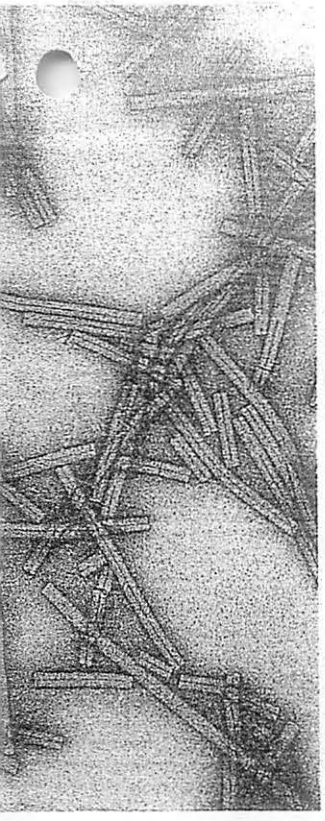
Viruses are contained within the plant cells and are transmitted to other plants when flowers are cut off or when the plant is divided. Technically the weak plants in your hospital will not contaminate each other unless their cells are opened manually.

Some orchids are more prone to viral infections than others. Cattleyas and Laelias are especially vulnerable while Paphs , Angraecums, and botanicals are less subject to infection.

It is not easy to distinguish viral symptoms and other diseases or physiological disorders. The symptoms may be chlorotic (yellow) and/or necrotic (black, brown or red, dead looking) spots or streaks. Fungal and bacterial diseases as well as physiological problems such as light intensity, fertilizer burn, and water imbalance can cause similar symptoms.

Common symptoms of CyMV

Cattleya leaves may have streaks or spots in yellow, black, or brown. Yellow streaks can appear as a pattern or mosaic of light and dark green. The pattern is usually visible from both the upper and lower surfaces of the leaf. Often the black or brown spots are sunken and may appear in a ring.



Flower necrosis induced by CyMV appears as brown streaks on the flower sepals and petals may appear several days after a Cattleya opens. Phalaenopsis flowers may show just a slight puckering or may show streaks on older flowers.

CyMV is the most prominent virus of most genera and in most collections.

Common symptoms of ORSV

ORSV is also known at TMV-O, causes severely debilitating symptoms in a variety of genera. This virus is responsible for the color break seen in Cattleya flowers. It is evident when the flower opens. Color break is sometimes a genetic trait, so the virus is not always to blame.

Leaf symptoms of ORSV resemble those of CyMV, but if spots are present they may appear slightly red.

Mixed Infections

Mixed infections of CyMV and ORSV are common in large, showy Cattleyas. Symptoms of mixed infections may be more severe than with a single infection,. Flower breaking may be extremely severe. The stunting effect and lack of flower production may also be more pronounced. Other viruses may also be combined within a single plant.

Dendrobium Vein Necrosis Virus

DVNV is the third virus seen in Florida orchids. It causes sunken patterns along the veins of leaves and flowers of dendrobiums. The sunken areas can become necrotic, with patterns most evident in purple flowers. Flowers fail to open fully. Aphids are the suspected vector of this virus.

Wisler, Gail C. 1989.**How to Control Orchid Viruses.** Maupin House Pub Gainesville, FL pp. 27-35

Now Biology 101

Viruses are basically 'not alive' by many standards. They can not split to reproduce asexually, but must reproduce with a host cell for another organism. Viruses can turn into crystals and rest for decades when there are no host cells available. The hardest to control viruses have RNA centers, and easier ones have DNA centers. Both have an outer shell of protein, but lack other cell parts.

Mad Cow **Prions** and plant **Viroids** are just particles from a whole virus. Viroids cause stunted growth in coconuts, potatoes and a variety of crop plants.

Review quiz. When white Cattlelya flowers develop brown streaks look for _____

Editor's note continued: *3. Right after my aspirin article was published, a university researcher emailed me that he had removed the salicin (aspirin) making gene in rice, and the plants had immediately come down with virus. Once inside a host cell viral RNA can convert the cell's RNA into about 300 more virus or can remain latent.* ***My guess*** *is that latent RNA activates after stress. (Wilma or no aspirin) 4. FYI the photo shows an electron micrograph of a mosaic virus.*

Forthcoming Name Changes

Ron McHatton
AOS Director of Eduation

In 2000 the first DNA study of the Laeliinae was reported in Lindleyana. One of the results of that study was the realization that the Brazilian laelias did not belong with the Mexican group of species that included the type for that genus (*Laelia anceps*). The initial solution was to place them in *Sophronitis* although other authors proposed to split these species into several segregate genera. With the publication of Genera Orchidacearum Vol 4 in 2006 and the acceptance of the circumscriptions therein, a plethora of name changes took place in artificial hybrid names in this alliance. While many familiar names changed, the situation would have been significantly worse had this group of species been carved into a number of smaller genera.

Recent DNA studies with nine plastid regions plus the original ITS dataset have lead to a better understanding of this group. While this expanded *Sophronitis* is always supported, it is also imbedded among species traditionally recognized as *Cattleya* presenting the need to further alter the definitions of the genera that make up the alliance. There are effectively two solutions; creation of new genera for the various subgroups of *Cattleya* or lump all *Sophronitis* species with *Cattleya* and deal with these groupings as subgenera or sections of a greatly expanded *Cattleya*. This latter solution provides better nomenclatural stability for artificial hybrids of species in this alliance since changes would not result in transfers to new genera.

At the World Orchid Conference in January 2008, International Orchid Committee met to discuss the situation and, with input from the RHS Advisory Panel on Orchid Hybrid Registration (APOHR), the authors of the additional studies, the Orchid Hybrid Registrar (the Registrar), the AOS and editors of Genera Orchidacearum agreed that sinking *Sophronitis* into *Cattleya* would be a better approach over the long term.

Where are we? The first step in the process was the publication of a scientific paper transferring these species comprising the expanded *Sophronitis* into *Cattleya*. That was done in March of 2008 in Biodiversity. Those that don't appear in this paper are those that, at one time or another, were already transferred by other authors. *Sophronitis* (*Laelia*) *tenebrosa* is an example. The second step, transfer of the natural hybrids has also now been done as well.

In a few months Genera Orchidacearum Vol. 5 will be published and will contain an addendum accepting these changes and the World Checklist of Monocotyledons will then be updated to reflect the changes. The Registrar has prepared the transfer of those species that appear in the hybrid registration database as well as the changes to intergeneric names that will result.

The cute little *Laelia liliputana* (aka *Hoffmannseggella, Sophronits*) will soon be known as *Cattleya liliputana*.

While these changes will take some getting used to, this will stabilize hybrid names in the long run. The most visible of the ensuing name changes will be the sinking of the vast majority of *Laeliocattleya, Sophrocattleya,* and *Sophrolaeliocattleya* into *Cattleya*. This and the transfer of most of the existing *Brassocattleya, Brassolaelia, Brassolaeliocattleya* and *Rhynchosophrocattleya* hybrids to *Rhyncholaeliocattleya* (*Rhyncholaelia x Cattleya*) will involve some 75-80% or more of the hybrid name changes. There will be some *Laeliocattleya* that remain so along with some *Brassocattleya* and *Brassolaelia* that will remain unchanged or become *Brassocattleya*; those with one of the Mexican *Laelia* species like *L. anceps* or *L. autumnalis* or a true *Brassavola* like *B. nodosa* in the background respectively, but these will definitely be in the minority. An example of one of the former is *Bc.* Katherine H. Chatham (*B. nodosa* x *C. labiata*) which will remain unchanged and an example of the latter is *Bl.* Richard Mueller which will become *Bc.* Richard Mueller (*B. nododa x C. flava*) It is our understanding that the Registrar expects the database to be updated by the end of March.

Want to learn more?

Check out www.aos.org for this and other articles on orchids. Consider joining the American Orchid Society today for even more benefits and access to member-only portions of their website.

For more information about this article, go to:
http://www.aos.org/AM/Template.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=6230

ASPIRIN AND GROWING ORCHIDS

Newsletter excerpts No. *201 –F - G*

by Dot Henley

Besides the fun, the good thing about teaching biology for years was learning more.

When I taught, I started the school year with a lab where students diluted aspirin (325 mg adult dose) in water and then poured the solution on radishes, oats or other quick-growing vegetables. The lab never failed, The strong (1 part aspirin to 1,000 parts water) stunted the seedlings; the medium (1/10,000 dilution) groups grew remarkably better than the water control group; and the weak (1/100,000 dilution) grew no better than the water control group.

Students learned that aspirin contains salicin (C13H1S07), which is found in the bark of willow trees. Native Americans chewed on willow twist to relieve headaches, and later botanists found that duckweed and other aquatic plants that grew in willow-edged streams grew better and matured faster due to the slaicin. Turn salicin into salicylic acid and voila! Aspirin is made. Recent literature indicates that aspirin is also and effective agent in treating some human fungal infections.

About a year ago, armed with all this information. I began treating our orchid collection to a weekly dose of aspirin. I found that I could approximately duplicate the good 1/10,000 dilution by adding three quarters of one aspirin (325 milligrams) to a gallon (4 liters) of water. We have about 2,000 orchids and I used15 aspirins in a 20-gallon hose-end sprayer. In the growing season, I added 6 tablespoons of fertilizer and a squirt of Whisk or Dawn. In winter, I used 3 tablespoons of fertilizer. (Forgive the teacher repetition, but one whole aspirin per gallon of water will stunt growth and you may not want to use this system if you have acid water. Our water has a normal pH of 9.0 and the aspirin lower the pH to 8.6. Of course, the orchids receive rainwater or tap water as needed during the week.

To make 12 gallons of fertilizer solution, combine 9 aspirin with 12 gallons of water; for 4 gallons, add three aspirin to 4 gallons of water; and for only one gallon dilute one aspirin in a cup of water, discard 1/4 cup of this, and then add enough water to make one gallon.

Our plants have more blooms, bigger growths and fewer fungal problems since aspirin became part of our culture. The only changes in culture have been the addition of aspirin once a week. Maybe it is the lower pH, or perhaps the magic that thins our blood and stops our aches and pains can also help us grow better orchids.

The other thing I learned that I have used for several years came from a science project done by one of my students. It was not applied to orchids, but to six or so varieties of garden plants where the student tried to show that the highest metabolic rate occurred at 11 am by the sun and that fertilizer and weed killer were best applied at that time. Even half-strength worked as well as full-strength. Fewer chemicals can't be all bad.

ed. note:- I have read in very old gardening books that if you want to make a cutting of a difficult shrub you put it in water with some lengths of willow twig as it will make roots grow faster on the chosen cutting. It is interesting to find out that aspirin originated with willow twigs.

Taken from the January 2009 issue of the Newsletter of the Orchid Society of Nova Scotia and originally published in Orchids - The magazine of the AOS, Oct. 2001

From the Manitoba Orchid Society newsletter.

FORT LAUDERDALE ORCHID SOCIETY

P.O. Box 4677
Ft. Lauderdale, FL 33338

Regular meetings: Second Monday of each month
Time: 7:30 P.M. Workshop, 8:20 P.M. Program
Place: Christ Lutheran Church Social Hall
1955 East Oakland Park Blvd.

Directions: Use Oakland Park Blvd. from **I-95.** Go East for 2.4 miles, go to the rear of the church which is on the North side of Oakland Park Blvd. Or take **US-1 (Federal Hwy.)** to Oakland Park Blvd. And go West for 2 blocks.

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