



An Affiliate of the American Orchid Society

FORT LAUDERDALE ORCHID SOCIETY

N.E.W.S.L.E.T.T.E.R

August, 2009

Hear Carol DeBiase August 10th

She is charming. She is funny. Her program will be fast moving. You do want to attend this meeting and learn more about miniature orchids from a lady who knows her plants. Carol has been growing orchids for 33 years. She started growing in Tulsa, Oklahoma where she probably got her first information on miniature orchids. She has been an American Orchid Society judge for the past 21 years and has traveled extensively in Peru, Borneo, South Africa, Malaysia, Columbia, Mexico, Guatemala, El Salvador, the Caribbean, and she has traveled extensively in the United States.

Carol has served on several AOS committees and hold memberships in several south Florida orchid societies. She has edited the South Florida Orchid Society magazine/newsletter for the past 7 years and has been Show Chairman of the East Everglades Orchid Show for the past 5 years. Adding to all of that years of being orchid curator at Vizcaya has been frosting on her experience with orchids cake.

Carol will supply the plant raffle table and you can expect a nice variety of healthy plants to win. D.H.

Member News

- * Dorothy Swenson has married her 'best friend' from grade 2 through college. Best wishes for happiness.
- * A+ students, Vicki Hallock and Connie Walker found that a *Cattleytonia* is a cross between a *Broughtonia* and a *Cattleya*, and a *Carmichaelara* is a cross between a *Brassavola*, a *Broughtonia*, and a *Laelia*. Hint, such a mystery can be solved quickly by typing in an orchid genus name for a Google search.
- * Several members, who may wish to remain meless, are recovering from various medical problems. Our hopes are that the rehab is going painlessly and that all recoveries will be fast. Special thoughts are with the caregivers as well.

New FLOS Member's Reminders

You are a member of the best orchid society on the planet. Why? The reason is simple, we are friendly and we all work together to get things done!

- * Refreshments: Think of your birthday month as good time to contribute something ready to serve. Ginny Salus and Gigi Granger should not have to spend the meeting cutting up cakes.
- *Special raffle ticket for AOS members: Go to the library table and get your ticket. A members list is found in this newsletter. If you joined AOS recently, bring the mailing cover of a recent Orchids Magazine to Vicki Hallock and get your name on the list.
- * House: John Wrench and Michael Schaberl will want your help in setting up the meeting room at about 6:45 on meeting nights, and even more help is needed to put the room back in order at the end of the evening.
- * Library: You are welcome to take home most of our books. A few reference books may not be taken home but are for your use at the meetings. Books should be returned at the next meeting of the society so others can have access to them. The late fine is \$1.00 per month.
- * The October Auction: This special meeting helps fund our December party which will be at Brook's Restaurant As you repot set aside extra divisions so you can contribute them to the auction.
- * The January show: Marian Huber's awesome, artistic, show poster has been printed. Ray Ratliff's poster for advertising is ready for print. The pre-sale tickets have also been printed. War Memorial has our deposit. The show is on the road and Chairwoman, Chris Crepage, is right on schedule.
- * Keeping current: Please report changes in you mailing address or phone number to me. Use the phone number on the front of the newsletter. D.H.

Bulbophyllum review preface

This very beautiful line drawing of Bulb. barbigerum was found in Hawke's Encyclopaedia of Cultivated Orchids which was published in 1965. I selected it to emphasize that this is a weird genus. Unfortunately this huge genus was barely covered in Hawke's massive work at that date. This is my main spelling source and I regret that I can not review Marc's well organized program in the detail it deserves. D.H.

Review July 13th Program

Marc Burchette is a brave man to even tackle a genus which has between 20,000 and 25,000 species which are divided into 120 sections. These plants are mostly epiphytes originating in the Pacific equatorial belt. The Greek translation of the genus is 'bulb-leaf' which is appropriate since most have a single leaf coming from the pseudobulb. Other traits usually found in the genus are the fact that usually flowers emerge from the base of the pseudobulb, they have a modified column, and their roots are shallow and absorb water slowly. Another trait that many share is the production of a 'what did I step in' smell that attracts fly pollinators.

July Program continued

Marc commented that his collection of about 100 plants was related to their unique shape, colors, and interesting textures. Some examples shown were the species below: :

careyanum had many tiny flowers around a scape.. crassipes (sp.) resembled a pine cone and stayed in bloom a month.

lasiochilum (sp) had lateral sepals that folded in.

lentissimo had 6" long flowers.

rothschildianium had an 8" spray of flowers.

phaleanopsis is a slow growing species with 4 ' long leaves.

medusae and *vaginatum* had tufts of short petals resembling the drawing above.

Marc grows his plants in high, *Cattleya* or *Vanda* light. He keeps his plants damp, but not wet. His plants grow in plastic baskets in a mix of moss, perlite, and tree fern.

Thank you brave Marc, it was fun to learn more about the weird and wonderful. D.H.

July Ribbon Judging Results

Zoe Bejar-/culture and blue/ Gram citrine
Mary Burtoff/ blue/ Podangis dactylocaras, /red/ Blc.
Bouton D'or 'Lewis' AM/AOS x Blc. Marv Ragan, Blc
Mem. Charles Mitamura 'Kaledescope', Brassavola
(flagellaris I x cucullata)

Allen Cogar /blue/ Phal. violacea 'Boden's Blue'. /red/Phal. cornu-cervi 'Red'

Paul Gartner /red/ Blc. Waianae Leopard 'Ching Hua', Blc. Crow Field 'Mendenhall' HCC/AOS

Vicki Hallock /culture and blue/ Miltassia Schelob 'Woodlands Star'

Bill Knost /red/ Stellamizutaara Kelly Lea

Tom Kuligonski /blue/ Ascda. Tubtim Velvet, Blc. Waianae Leopard 'Ching Hua'

Tin Ly /blue/ C. Dowis x Toshi Aoki, Bpl. Golden Peacock 'Sunkist'

Wayne Musgrave /red/ Pot Sally Taylor x B. nodosa, Otara Hidden Gold.

Hidden Gold.

Bettie Oldack /red/ C. Mem. Vida Lee 'Limelight'

Luana Tringali /blue/ B. Little Stars, Den. secundum Mercer Stowers /blue/, C. Hawiian Wedding Song 'Virgin' John Wrench /blue/ Otaara Hidden Gold

Shari Weidenbaum /blue/ Blc. Pokai 'Splash' x Blc. Ann Miyamoto 'Saikai'

Kaler Westphalia /blue/ Paph. Hsinging Ruby Cherry 'Hilo Flame' x callosum 'Hilo Fire' AM/AOS , Enc. tampensis 'Alba' x self. /red/ Mtsa. Olmec 'Kanno' HCC/AOS, Paph Singyag Citron x maudiae .

Unclear orchid names:

Michael Schaberl /blue/ Angraceum ----

Mercer Strowers/ culture/ Encyclia ----

Meet Two With Clumps of Little Flowers With Lots of Punch

Dendrobium capituliflorum

Check this one out on <u>orchidspecies.com</u>. This plant is between 5-10" tall and produces dense clusters of small tubular flowers on older leafless stems. The inflorescences last for a month or two, and there is usually more than one flowering per year. The plants should be watered all year and should not be grouped with the many other *Dendrobiums* that need a winter rest. This plant should be protected from temperatures below 50.

Dendrobium smillieae

The common name of this one is Bottle Brush Orchid. Again the small tubular flowers are found on leafless older canes in dense clumps. The stems may be a yard long. There are two color forms, one has pink flowers with dark green-black centers, and the other has white flowers with green centers. The flowers last from 2-6 weeks and appear in the spring or early summer after a winter rest which has to be punctuated by occasional watering. Again, protect this warm growing plant from below 50 temperatures.

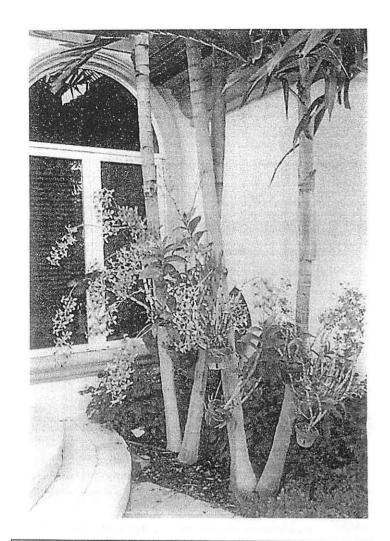
Lavarack B. et al. 2006. Dendrobium and its relatives. Portland. Timber Press. Pp. 235-236, 240

Summer Tid Bits

- *The good news about the recession is that it is partly good for the planet. Bottled water consumption is down by 11%. The demand for beef is down so much that in Brazil where rainforests were being cut down to make room for cattle ranches, deforestation has reached a 70% drop. Demand for gas and oil is down. In the United States drilling for petroleum is down by one third compared to this time last year.
- * As the world warms potatoes will become the staple of choice for all. Potatoes are heat tolerant and require less water than wheat, rice, or corn.
- *The bad news for chocolate lovers is that West Africa which produces 70% of the world's cocoa has become the site of a virus which has cut this years crop by a third. Hundreds of millions of cacoa trees have been destroyed in an attempt to contain the virus.

The Amazon basin's cacoa trees are facing a fungal epidemic which began in 1980 and turned that area into a minor rather than a major source of chocolate.

Sierra, July/August, 2009. Pp. 16, 20-21



Why We Ramble

Robert and Loleita Shirk got the *Dendrobiums* seen above on last year's fall ramble south. The plants came from Living Color where we will shop again this fall.

Dates have not been set, but expect a bus ramble south, a home ramble, and maybe an overnight bus ramble. Start saving your money for the bus ramble(s) as well as our annual auction.

Orchid Trivia

* There are about 250,000 species of plants. 10% of all plants are orchids.

Koopowitz H. 2001. Orchids and Their Conservation. Portland. Timber Press. P. 5

Orchid Seed Pod Trivia

* Crytopodium punctatum seed pods each hold 7 ½ million seeds which is the record high number. Barbosella Australia seed pods hold the record for the least number which is about 25,000 seeds per pod. Koopowitz H. 2001. Orchids and Their Conservation. Portland. Timber Press. P 10.

The New Grower's Page:

Understanding Pesticide Labels

Organophosphates attack animal nervous systems but since plants lack nervous systems they can hold such agents inside their tissues to form toxic systemic insecticides.

The degree of toxicity of a poison is governed by its chemical nature. Scientists use the **LD50** value to measure toxicity. The LD50 (lethal dose 50) value is the concentration needed to kill 50% of the experimental animals which are usually rats. The less chemical needed to reach the LD50 point, the more toxic would be the chemical.

Here are some other quick facts:

- 1. A higher concentration of a poison will produce a higher death rate.
- 2. A longer duration of exposure will produce a higher absorbed dose.
- 3. The presence of other substances and conditions may affect the dosage. For instance alcohol and/or other drugs may make a pesticide more toxic to the person administering the pesticide. A higher environmental temperature increases the toxicity of the pesticide, and combining two pesticides enhances the effects of each.
- 4. Young children, pregnant women, and the elderly are more sensitive to the poisoning effects of pesticides.

Pesticide Primer

Note: Neither the Fort Lauderdale Orchid Society nor the Editor should be held responsible for any misinformation in this section. It is up to YOU to read and follow ALL the manufacturer's label directions.

Fungicides:

Captan 50 is used on seedlings or transplants, and may protect against damping off. Use 2-3 TBS per gallon of water unless otherwise specified.

Dithane is used to treat foliar disease. It does not control root rot diseases. Use only as needed, 1 ½ TBS per gallon of water. Repeat the treatment at 7 and 14 day intervals.

Subdue 2E (Metalazyl) is used for Pythium root rot and black rots. Use 6-12 drops per gallon of water and treat at 6 week intervals. Use no more than 3 applications to prevent a build up of chemical resistance.







Cleary 3336 WP (WP = wettable powder) and Fungo FLO (flowable) are both Thiophanate-methyl.. Either can control foliar, stem, and root rots. For wettable powder use 2 level teaspoons per gallon of water and repeat after 7-10 days. For FLO use ½ tsp./gal. At 10-14 day intervals.

Insecticides:

Orthene is used to control aphids, mealy bugs, and thrips. The amount depends on whether you use a 50 or 75% concentration. This is a favorite spray for emerging buds to prevent thrip damage since it does not harm the later flowers.

Malathion might kill scale, mealy bugs, and aphids. Many insects have built up a resistance to it.

The above information came from: http://ace.ace.orst.edu/info/extoxnet/pips/ghindex/html



Caution!

*If pesticides were harmless, they would not kill anything! Be sure that you:

- 1. Do not mix chemicals unless told to do so. You could produce a dangerous toxin or an explosion!
- 2. Avoid spraying on a windy day. Other wise you expose yourself and whatever is near with toxins meant for the plants.
- 3. Avoid spraying at mid-day to prevent leaf burn.
- 4. Wear protective clothing over legs, arms, feet, and wear a respirator. Ntril gloves protect hands, latex gloves do not.

On Botanical Oils and Extracts

Pesticides made with botanical oils are derived from plants that are known to have insecticidal properties. This does NOT mean they are safe for you. For instance pyrethrums (chrysanthemum extract), nicotine (tobacco extract), and rotenone (pea family extract) are effective insect killers. There are synthetic pyrethrins (ending in -ins), but they too are also extremely toxic. Organic farmers who have used rotenone for a time are now showing nerve damage and Parkinson's disease.

As orchid-people it's time to know more about neem oil. It is described as having very low toxicity to mammals. It acts as a feeding inhibitor, egg laying deterrent, growth retardant, sterilant and direct toxin to insects. It is used to in its native India to control fungal diseases in plants and in human toothpaste and pharmaceuticals.

Keep Orchids Hurricane Safe

On June 22 our thermometers went to 100 degrees for the third time in history. These were our all-time known hottest days. There is no doubt that the weather is as mixed up as the economy! Friend Ann has lived on the ocean for 35 years, she reports that the turtles nest up near the sea wall when we have had a hurricane and down near the sea when there is no hurricane. This year they are nesting very near the sea. In case the turtles are going to be wrong, these are things to think about in keeping your orchids safe:

- 1. Bring all orchids inside if you can. If not select young plants and plants with thin leaves for coming inside.
- 2. Water the plants that you have to leave outside to make them heavier and put them on the ground next to your house, If possible cover these plants with light weight cotton sheets or shade cloth and anchor the cloth to the ground. The cloth will offer some protection from flying sand and small particles that will cut into leaves. Do NOT use plastic sheets to cover and cook your plants.
- 3. After the storm get the orchids off the ground as fast as possible and hose them off. Spray the plants with a fungicide to kill the fungal spores and bacteria that may have entered though small cuts in the leaves. If your shade cloth has blown away, cover the plants with cotton fabric or screen wire until you can get more shade cloth.
- For at least two weeks keep a close eye out for black rot and remove infected leaves and isolate infected plants.
- 5. Believe in turtles, but be prepared!

Orchidelirium or Orchid Obsession

Orchidelirium was the Victorian name for orchid obsession, and there were many tales of orchid collectors at that time. The Duke of Devonshire bankrolled an expedition to the far east that produced more than 80 new species for his collection at Chatsworth. Not all of the Duke's endeavors were so successful. Another trip to the Canadian Rockies ended with two of his gardeners drowning when their boat capsized in the Columbia River.

Moving plant hunting forward in time, in 2000, two Britons, Paul Winder, a banker, and Tom Duke, a horticulturist, were kidnapped in Columbia. They were held for 9 months before being released.

Summer News. Orchid Society of Nova Scotia

Remembering

Dr. Leona Pagano



pH Levels and Orchid Culture

For many reasons, collecting rain water for orchids is a good idea, but most of us can't collect enough for full time use. Since it's been a while since your last science class, this mini-chemistry lesson may help you understand pH which is important to orchid culture.

The system most used in this country is based on a scale ranging from 1 to 14. The lower the number the more acid the substance, which means that there are more free hydrogen ions available. The higher the number means that more alkaline, hydroxide ions, are available. When the pH is 7 there are equal numbers of hydrogen and hydroxide ions and the solution (water) or substrate (orchid potting mix in this case) is neutral.

The number of ions is increased by a power of 10 with each number up or down. For instance a pH of 6 has 10 times more hydrogen ions than a pH of 7, and a pH of 5 has 100 times more hydrogen ions than a pH of 7.

Most orchids grow better when the pH is slightly acid between 5 and 6.9. You can test the pH of your water with an aquarium or pool test kit and get an idea about the pH of the water you are using on orchids. I tested rain water here on June 24 and the pH was 7 while our tap water tested at a basic 9. I don't plan to do anything about the tap water. Adding vinegar would be hurtful since it is the wrong acid. I could go to a pet store and buy a product that would bring the water down to a more neutral level, and I would get safe directions on how much to add. I do use Miracid fertilizer every couple of months and think the orchids look 'peppier' after I do. You might think pH if your orchids are not doing well, or if you are watering with well water which may be even more basic than tap water. D.H.

Florida Agriculture

Florida continues to lead the nation in the production of many important fruits and vegetables. In 2007 Florida farmers produced \$7.8 billion in products. A recent report by the Produce Marketing Association showed that Florida's fresh produce and floral industry accounts for almost 120,000 direct, full time jobs. Counting indirect employment, those sectors have a total employment impact of 193,000 jobs.

Florida Trend. July, 2009. P. 5

More Animal Trivia

- * If you lined up every plant and animal species on earth, every 5th species would be a **beetle**. There are about 750,000,000,000,000,000 individual beetles out there. Pp. 22-23
- * Bufo marinus is a very poisonous toad. Swallowing eggs, tadpoles, or adult toads can lead to heart failure and usually death to most animals. Pet dogs can become ill by drinking water that a toad has waded through. They produce four times as many eggs as most amphibians.

There is a bright side, *Bufo* venum contains setotonin which can be used to treat heart disease, cancer, mental illness, and allergies. Pp.33-34

* Catfish species range from half inch long adults to 16' long adults. The lateral line steak down the fish's sides has supersensitive hair-like projects that are sensitive to vibrations. The Chinese have exploited this talent for centuries, using catfish to warm of earthquakes. They can detect quakes days in advance of the quake.

Most catfish are harmless but the *candiru* lives in the Amazon and sometimes finds its way into a human urethra. Here it erects its spines, causing hemorrhage and death. Pp. 41-42

* This section should be entitled "Cow things you'd rather not know." Today some cattle are fed magnets which lodge in the first part of their stomach. The magnets last a life time and catch staples, nails, and other metals which cows swallow and which can cause 'Hardware Disease'.

An average cow burps 600 pints of methane a day. Livestock farming in general creates 18% of all manmade greenhouse gases. This is more earth- warming gases than made by all the cars and other forms of transportation used by man.

Besides providing meat and milk, cows' lungs are used to make anticoagulants, their placentas are used in cosmetics and pharmaceuticals, and the septum cartilage which divides the nostrils is made into a drug for arthritis. The blood is used for glue, fertilizer and the foam in fire extinguishers. Brake fluid is made from cattle bones. Pp.53-55

* The common **housefly** is one of the most dangerous animals on earth because it breeds in rubbish, sewage, and dung. It carries tuberculosis, typhoid, cholera, dysentery, anthrax, parasitic worms as it touches human food. In theory 2 flies that mate in April could with their progeny produce by August enough descendants to blanket the earth with a pile of flies that would be 47 feet tall. P.78

Lloyd, J. and J. Mitchinson. 2007. The Book of Animal Ignorance. New York. Harmony Books.

Rats, Rats, Rats, Rats

You are right, this is about rats, rats, and more rats. Each female can produce 12 litters of pups per year. It is estimated that there are 150 million brown rats in the United States. Rats can swim for 72 hours non-stop, can jump down 50 feet without injury, and squeeze through a half-inch gap, and can survive longer than a camel without water. Added to that is an ability to call anything, organic or inorganic, food. It is estimated that they eat about one fifth of the food grown to be eaten by man world wide.

They carry more than 70 infectious and unpleasant diseases such as bubonic plague, cholera, typhus, tuberculosis, salmonella, E. coli, hoof-and-mouth, and SARS. They carry 8 kinds of parasitic worms. A quarter of electrical cable problems come from rats chewing on the lines and many fires also result from their chewing.

Lloyd, John and John Mitchinson 2007. The Book of Animal Ignorance. New York. Harmony Books. Pp 176-177

Studies have shown that elimination of rats is not possible and all-out drives to that end result in greater rat populations. The way to deal with them is to keep them away from our homes and food, and let them thrive in sewers and garbage dumps. (Bio. 101)

Thank Our Refreshment People!

Lisa Davis, Nora Dyke, Gigi Granger, Paul Gartner Carrie Ackerman, Vicki Trank, Connie Walker Zoe Bejar, and Leah Ostrander

Living Easier

- * Kitchen cinnamon may stop or prevent rot in orchids but it also draws possums or raccoons which munch on flavored orchid parts and knock over pots. If you treat with cinnamon put the plants out of reach of the critters 'that go bump in the night'.
- * According to Ft. Lauderdale's recycling department one aluminum can save enough energy to power a tv or computer for 3 hours. One glass bottle saves enough to keep a 100 watt light bulb burning for 4 hours. Recycled trash brings big money to the city. Maybe the city will pass some of the saved money on to us and we can have more orchids?

Our AOS Members

This list is from the 2009 AOS Membership and Speakers Dictionary. If you are not listed bring proof of your membership to the library table so that your name can be added to the list and you can have a chance to win a free plant.

Carrie Ackerman Rich Ackerman Jeff Adkins Barbara Ansley Zoe Bejar Bonnie Bonneau Dr. Bruce Burtoff Mary Burtoff Ed Cardenas Mickey Carmichael Chris Carney Carol Clarkson Lisa Davis Jane DePadro Nora Dyke Dennis Fitzkee Barbara Gatterman Eddie Grffith Deane Hall Vicki Hallock George Henderson **Bob Henley** Dot Henley Jose Hernandez Diane Howe Rubben Howe Marian Huber Irma Hughes Jenny Hughes **Bob Isaacs** Martyna Kilsheimer Betty Kline Col. Kenneth Kone Karen Kubinec Thomas Kuligowski Bernard Langeluttig Dave Levine Jackie Lyles Sheri Macchia Arlene Maguire Christine Marinella Joan Massingill

Janett McMillan

Allan Mink

Jan Mink

Mary Ann Michalak

Dr. Martin Motes Bruce Muntz Sue Muntz Wayne Musgrave Bettie Oldack Leah Ostrander Pricilla Oughton Dr. Leona Pagano Ellen Peel Jim Peer Ann Perryman Thuy Pham Jose Picon Ray Ratliff Dr. David Reyer Mac Rivenbark **Enid Robbins** Dr. Ginny Salus Barbara Sayre Michael Schaberl Diane Scherer Phil Scherer Mary Schul Pamela Segal Mary Sessions Lee Sharpe Sara Singer Joyce Skelly Ken Slump Jill Smith Mercedes Steurwald Janet Techner Shelton Thorne Luana Tringali Dr. Jeanne Trubey Joan Viggiani Ed Walden Nancy Walden Marianne Walker Lucy Webber Shari Weidenbaum Virginia Weinstein Zellie Wemyss Carol Wheeler Harold Wheeler John Wrench

Sue Zimmer

Membership Updates As of July 13th Please clip and add to your Roster.

Saira Kaizad (Niles) -renewed- 954-850-3255 817 SE 14th Street, Ft. Lauderdale, 33316

Ellen Kirby 954- 351-7001 222 Neptune Ave., Lauderdale-By-The-Sea, 33308

Barbara LeGette 954-587-4160 2460 Andros Lane, Ft. Lauderdale, 33312

Anthony Mackenzie, Jr. 954-695-66046 6985 NW 29th Terrace, Ft. Lauderdale, 33309

Jeannie Nezvadovitz 954-461-9986 4402 NW 20th Ave., Oakland Park, 33309

Ted Nulden 954-254-3552 (new number)

Ray Ratliff-moved 1304 S. 17th Ave. Hollywood, 33020

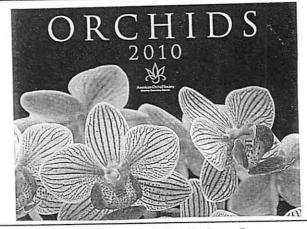
Rick Salomon 954-566-6098 1840 NE 41st St. Oakland Park, 33308

Gerry and Jill Smith 954-462-0477 2500 East Las Olas Apt. 1601, Ft. Lauderdale, 33301

Darlene Studenmund 954-966-4101 921 N. 31st Ct., Hollywood, 33021

Kaler Westpahlia 454-235-4586 2651 NE 51st Court, Lighthouse Point, FL 33064

Elaine Welch - Welcome new member! 954-771-7980 5300 NE 24th Terrace, Apt 302C, Ft. Lauderdale, 33308



About The AOS Calendar

FLOS member, Ken Slump wrote the script that goes along with the monthly photograph. He gives advice on successfully growing and blooming the 12 choices which grow well even under lights inside.

Plan A is to visit the gardens in Delray and buy your own calendar, and Plan B is to make out a check to AOS for \$12.43 (AOS member) or \$13.09 (non-member) and give it to Joan Connors who will bring it to you at the next meeting. \$2 of your cost goes to conservation.



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

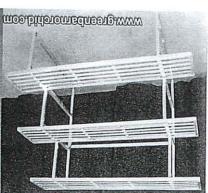
Regular meetings: Second Monday of each month Time: 7:30 P.M. Workshop, 8:20 P.M. Program Place: Christ Lutheran Church Social Hall 1955 East Oakland Park Blvd.

<u>Directions:</u> Use Oakland Park Blvd. from 1-95. 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.

Call these numbers: Sunshine (954) 491-1267 Newsletter (954) 772-4836

Web Site: www.flos.org

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Website: www.carmelaorchids.net Email: carmelaorchids@hawaii.rr.com

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