

JULY 2014

Diablo View



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DVOS meets on the second Thursday of the month at the
Contra Costa Water District boardroom 7:30-10:00 pm
1331 Concord Ave. Concord, CA.

AT OUR NEXT MEETING:

Our speaker will be Anna Chai (see p. 3)

OUR JULY MEETING WILL IS ON

THURSDAY JULY 10

PLANT TABLE PROVIDED BY:

Anna Chai

SPEAKER'S DINNER

BEFORE THE MEETING IS

AT 5:30 PM:

***Sichuan Fortune House,
41 Woodsworth Lane,
Pleasant Hill***



B. nodosa

BOARD MEETING:

July 17 at 7:30 pm

at the home of Jamie and Liz

AT OUR NEXT MEETING JULY 10



Cultural secrets of Anna Chai



In a rare speaking appearance, Anna Chai will talk to DVOS on July 10th.

Known for her superior culture, this is a unique opportunity to hear the techniques and practices of one of the best orchid growers in the country.

Anna Chai has been growing orchids for thirty years. She is now a retired AOS judge. She has been awarded by the AOS for one hundred and six of her orchids. She was awarded the Butterworth prize, the

Fred Hillerman prize, and received two Show Trophies. She has participated in six World Orchid Conferences as an international judge. She is still growing around six hundred orchids in her back yard.

AT OUR JUNE MEETING:

Ed Nazzal *Kitchen Seed Germination*



How patient are you? Can you wait three to five years before you open a present to see what's inside? If so, then growing your own orchids from seed and waiting to see what the blossoms look like may just be up your alley. Ed Nazzal was the DVOS June 2014 speaker. He described how to germinate and flask your own orchid seeds in the kitchen or, more correctly, in the garage.

Ed has hybridized his own orchid crosses for years and has come up with a low technology and cheap method for home germination of orchid seeds.



Abdominea minimiflora

The process is very much a technique sensitive recipe which will be outlined below. The summary of the technique is as follows:

- 1) Find two orchids you would like to cross pollinate.
- 2) Allow the orchid to form a seed pod.
- 3) Harvest the seed from the dry pod or the green pod.
- 4) Sow the seeds into a sterile flask containing a jelly like nutrient media.
- 5) After the seeds have germinated, transfer from this flask to a flask containing a growing media.
- 6) When the seedlings are mature, transfer them from the growing media jar into a pot.
- 7) Grow the seedlings to blooming size plants and see what the resulting blossoms looks like.

The first step is to cross-pollinate two orchids. This is the old anther in the stigma trick. Use your tools correctly to pull on the anther cap and then press the pollen on to the stigma. Remember press hard to get the pollen to stick. Harder is better. Follow this up with some Chinese food and a cigarette. Ed tries to make two seed pods, two weeks apart, on the same plant. When the first seed pod is fully matured, it will open and dump its seeds on the ground. This will provide you with a reference point knowing that approximately two weeks later the second seed pod will open and you can collect the



Brsdm. Kenneth Biven

released seeds before they drop on the ground. The size of the seed pod is not indicative of the amount of seeds produced. The seeds will look like dust and each pod contains between 0 to 500,000 seeds. A green pod technique is also used whereby the pod is harvested before it opens. When the seed pod is still green, a window is cut into the pod to expose the contents. The seeds are then scraped out from the inside of the pod directly into the germinating flasks under sterile conditions. The advantage of the green pod technique over the dry pod is that it is easier to sterilize the green pod and the contents are uncontaminated seeds. The disadvantage is that the green pod seeds maybe immature, creating an all or nothing germination success.



When you scrape out the green pod seeds you also carry over viruses with the seeds and pod tissue as well. With the dry pod technique no viruses are carried over, but the seeds will need to be sterilized with bleach, which may prove lethal to some seeds. One last note, not both parent plants from the cross will raise equally good seed pods. One parent plant will usually create better seeds than the other parent.

The orchid seeds need a mixture of nutrients and sugar supported on an agar media inside a sterile flask in order to germinate. Orchid seeds have no energy source of their own and rely in nature on a fungus to pair up with them and supply the energy needed for the seed to germinate. The solution needed for the orchid seeds to germinate was discovered in 1922 by a scientist known as Knudson. He created a mineral and sugar mix supported on an agar media (Agar is a gelatinous material extracted from seaweed). This germination solution as well as the growth solution can be purchased from Sigma Chemical Co. P.O.Box14508, St. Louis, MO 63178 Phone # 1-800-325-3010 or Phyto Technology Labs, P.O. Box 13481, Shawnee Mission, KS 62282 Phone# 1-888-749-8682.

These companies may be your best bet to save time and the purchase of individual chemicals that would be needed to create your own Knudson formula and growth media solutions. If you do make your own solutions from scratch you will need a very accurate scale and distilled water. The optimum pH of your solutions should be between pH of 4.5 to 5. The pH of 4.6 is ideal. This pH allows maximum absorption of the nutrients into the seeds. You can use lemon juice to lower the pH and sodium bicarbonate or baking soda to raise the pH.

This Knudson solution and agar will be poured into your germination jars at a rate of 4 ounces, or 100 milliliters, per jar. The jars can be mason jars or spaghetti jars. Be sure to use clear glass jars only. You will put these jars containing the Knudson solution into a pressure cooker with the lids screwed on loosely so that they allow for the steam exchange during sterilization. These jars will be your germination flasks. For the growth flasks, use the same style of jars, but you will need a hole in the lid covered on both sides with a small round Band Aid. This will allow oxygen and carbon dioxide to be exchanged while your plants are growing from the seed germination stage to the seedling stage. The growing jars are different also in the media that is placed in them. In addition to the Knudson solution they will also have banana powder, coconut milk, charcoal to absorb toxins, and hormones known as cytokinins. This media will allow the seeds to grow into three- to five-inch seedlings. This Knudson solution and agar will be poured into your germination jars at a rate of 4 ounces, or 100 milliliters, per jar. The jars can be mason jars or spaghetti jars. Be sure to use clear glass jars only. You will put these jars containing the Knudson solution into a pressure cooker with the lids screwed on loosely so that they allow for the steam exchange during sterilization. These jars will be your germination flasks. For the growth flasks, use the same style of jars, but you will need a hole in the lid covered on both sides with a small round Band Aid. This will allow oxygen and carbon dioxide to be exchanged while your plants are growing from the seed germination stage to the seedling stage. The growing jars are different also in the media that is placed in them. In addition to the Knudson solution they will also have banana powder, coconut milk, charcoal to absorb toxins, and hormones known as cytokinins. This media will allow the seeds to grow into three- to five-inch seedlings.

To use the pressure cooker to sterilize these jars, you will need to pour one to two inches of water into the bottom of the pot. Place the jars inside with the lids loose then heat under pressure for 15 minutes

at 15 pounds per square inch and 250 degrees Fahrenheit. Let the pressure cooker cool. Then screw on the lids securely. They are now ready to use.

Next you will need to create a sterile chamber where you will transfer the seeds to the germination jars and then later transfer the germinated seeds to the growth jars. To do this you will need a clear garbage bag with everything you will need placed inside the bag ahead of time. The bag will contain your jars, scalpels or razor blades, gloves, a spray bottle with 25% Clorox bleach solution, tweezers, a metal rod and paper towels. Spray the inside contents and the inside of the bag thoroughly with a fine mist of the 25% bleach solution. Then roll up and seal the bag with clothes pins. Allow this bleach spray to saturate for 5 minutes. Then wipe the inside of the plastic bag with the towel so you are able to see what you're doing. Before entering the bag to do any sterile transfer work, you need to scrub your hands and your arms with the antibacterial soap, just like a surgeon, and then slip on your gloves that are inside the sterile garbage bag.

For dry pod seeds you will need to do some preparation ahead of time to get the seeds ready for your bag.

Ed Nazzal's talk on Low Tech Seed Germination was video taped by Sung Lee. He will make copies available to members for \$10 per DVD at our July meeting. These are for personal use only and may not be reproduced or posted to the Internet.

You will need to put the seeds inside of a plastic irrigating syringe (see your dentist). The seeds will be placed inside the syringe with a 10 percent Clorox solution and a drop of liquid detergent, to wet the seeds. Shake the syringe 15 minutes to sterilize the seeds. This sterilization solution will work for 95 percent of the species you will try and cross. The open end of the syringe should be plugged with a piece of cotton so that the bleach and water and soap solution can be expressed slowly through the cotton without losing the seeds. After the 15 minutes

of shaking the seeds, squeeze out all but one to two drops of the Clorox, seed, soap solution. This syringe will then be placed in the garbage bag and sterilized with the 25% Clorox spray along with all your other supplies.

If you are using the green pod technique, you will need to put the green pod, a razor blade, a toothbrush, and a bowl of 25 percent Clorox solution inside the bag ahead of time. Sterilize all of the above as described with the fine mist of 25 percent Clorox solution spray. When it is time to transfer the seeds to the germination flask you will need to soak the green pod in a 25 percent Clorox solution and scrub with a toothbrush 5 to 10 minutes. The green pod is thick skinned and will easily stand up to this abrasion. Open the pod with a razor blade under sterile conditions and scrape the seeds into the Knudson agar germinating flask. Wet the seeds with one drop of sterile water in order to spread the seeds on the agar.

To germinate the seeds you will need to keep the germination jars at a temperature between 72 to 78 degrees Fahrenheit and a constant light level 24 hours a day 7 days a week. The light source will be a fluorescent bulb with a cool white rating. This light is required for the chlorophyll production in the seeds. For Paphiopedilums and Phragmipediums you can keep them in the dark for the first month then use the light 12 to 14 hours per day until they germinate. Cattleyas should germinate in 3 to 4 weeks. Phragmipediums and Paphiopedilums take up to one to one and a half years to germinate. Cymbidiums will take up to one month to germinate.

Once your seeds have germinated in the jars, as evidenced by little green specks, you will need to transfer them to your new jar with the growing medium and the band aids covering the hole in the lid. This transfer also needs to be done inside of your sterile garbage bag with the same conditions described above. When your plants have grown and have three or more roots they can be removed from the growing jars and transplanted into growing pots. Now you are just a short three to five years away from seeing your first bloom or you can forget all of the above and just go to OrchidWiz. Type in your crosses and in most cases in less than 30 seconds see what your cross will look like.

Thanks, Ed. I may just have to try it someday for fun. *-Brad Piini*

Membership News

courtesy of Ulrike Ahlborn,
Membership Chair

membership@dvos.org

General Members \$30

Commercial Members \$40

Lifetime Members \$300

If you are unable to receive the newsletter by email and need a B&W copy mailed to you, there is an additional \$10 charge for copying and postage.



Pths. tribuloides



Ren. starii





DVOS is moving in 2015

Our current meeting place, the Contra Costa Water Board room, will not be available to us next year due to earthquake retrofitting. Beginning in January, we will meet at the newly rebuilt Pleasant Hill Community Center in the McHale Room. Some of you will remember this as the location where we held our Fall Show for many years prior to the rebuild.

In addition to changing our location, we will also be changing from the second Thursday to the third Thursday of each month. The Community Center is located at 320 Civic Dr. in Pleasant Hill (near the Police station and the YMCA.)

Send your sari to the cleaners
August is our annual picnic and auction.
Our theme this year is *Hooray for Bollywood!*

Members, friends, and family are welcome to attend this annual orchid and BBQ spectacular.

Members should plan to bring a food dish to share, an orchid for the auction, and a check or credit card for all those orchid purchases you didn't know you needed. As in the past, there will be a \$50 prize for the *best costume*.





Presents

**California Sierra Nevada
Speaker's Day**

Saturday, August 2, 2014
9am to 5pm
Odd Fellows Building
1831 Howe Avenue at Alta Arden
Sacramento, CA

Tickets

\$10 Advance

\$20 at the door for
sponsoring societies and
AOS members

\$25 general admission



SCHEDULE OF EVENTS - Saturday, August 2, 2014

- 9:00 AOS Judging, see how we judge
- 11:00 The Laelias of Mexico, their hybrids and how to grow them
Jim Rose, Cal-Orchid
- 12:00 Lunch Break
- 12:45 Auction
- 1:45 Complex Paphiopedilums
Theresa Hill, Hillsvie Garden
- 2:45 Phalaenopsis Species, Their Habitat and Culture
Carlos Fighetti, President of the International Phalaenopsis Alliance
- 3:45 Break out Sessions
Theresa Hill on Paphiopedilum culture
Carlos Fighetti on Phalaenopsis culture
Dennis Olivas on growing Cattleyas outdoor in Northern California

Featuring:

Jim Rose of Cal-Orchids

The Laelias of Mexico, their hybrids and how to grow them

Theresa Hill of Hillsvie Garden

Complex Paphiopedilums

Carlos Fighetti - President of the International Phalaenopsis Alliance (IPA)

Phalaenopsis Species, Their Habitat and Culture

Vendors:

Hillsvie Gardens - Paphiopediliums

Cal-Orchids - A Variety of Orchids

Gold Country Orchids - Mini-cattleyas

Carlos Fighetti - Phalaenopsis

D & D Flowers - Dennis will have whatever the others do not.



E. cordigera

CSNJC is a 501(c)3 organization.
Visit our website at www.csnjc.org

Congratulations to Tom Pickford for recently awarded



C. Coquina 'Wendi Eileen' HCC/AOS 79
June 2014 CSNJC



Scuticaria irwiniana 'Doris' AM/AOS 83
May 2014 Oakland

D&D Flowers Grand (re)Opening

July 19 & 20, 2014 9:00 am to 3:00 pm

at the new location: 169 First Avenue Daly City, CA 94014

D & D FLOWERS IS NOT OPEN TO THE PUBLIC EXCEPT DURING THE OPEN HOUSE

Directions 280 South from San Francisco: Take the Eastmoore Avenue exit and veer to the left onto Sullivan Avenue. At the stop light, make a right onto Washington Street, go over the freeway to San Pedro (Catholic church at the intersection). Make a right onto San Pedro and continue through Misson Street between Bank of America and Wendy's Burger. At the stop sign, make a left onto First Avenue. Greenhouse is on the left hand side of the 3rd house with the red garage and a sign reading Demattei Nursery. Enter the gate of the chain link fence with red lattice to the left hand side of the red garage.

Directions 280 north of South City: Take the Eastmoore Avenue exit and eventually you would like to be on the 2nd to the left hand side lane at the stop light. Make a left hand turn onto Junipero Serra Blvd and at the stop light make a right hand turn onto San Pedro Road. Continue through Misson Street between Bank of America and Wendy's Burger. At the stop sign, make a left onto First Avenue. Greenhouse is on the left hand side of the 3rd house with the red garage and a sign reading Demattei Nursery. Enter the gate of the chain link fence with red lattice to the left hand side of the red garage.

Limited street parking so please car pool. Do not park within the chain link fence.

Mahalo for your cooperation!!!!!!

UPCOMING SPEAKERS AND EVENTS

July 10: DVOS Meeting with Anna Chai
& our annual Ice Cream Social

July 17: DVOS Board Meeting at the
home of Liz and Jamie

July 19-20: D&D Sale (p. 17)

Aug 2: CSNJC Speaker's Day (p. 13)
<http://www.csnjc.org>

Aug 16: DVOS Picnic: This year's theme
Hooray for Bollywood!

Oct. 4-5: Pleasant Hill Art, Jazz
& Wine Festival
(DVOS will have a booth)



Awards DVOS June

Novice

- 1st *B. nodosa* Jean Keim
2nd *Phal.* Noname Pascual Machin
3rd *C.* Noname Irene Desmond

Intermediate

- 1st *E. cordigera* Eileen Jackson
2nd *Brsdm.* Kenneth Biven Linda Castleton
3rd *Den.* Pixie Charm Tim Wert

Advanced

- 1st *Pths. tribuloides* Sung Lee
2nd *Ren. starii* Mark Dillard
3rd *C. citrina* Ken Cook

Lancer Smith (species/under 6")

- Abdominea minimiflora* Ken Cook



California Sierra Nevada
Judging Center Awards can
be viewed at:
<http://www.csnjc.org>

REFRESHMENTS FOR THE JULY MEETING
WILL BE PROVIDED BY:



FOOD:

The **BOARD** will provide
ICE CREAM and **ROOT BEER**

Members are encouraged to
bring **COOKIES**



C. Citrina

SET-UP AND CLEAN-UP:

Brenda Aday

DVOS OFFICERS 2014

PRESIDENT: EILEEN JACKSON

VICE PRESIDENT: SUNG LEE

IMMEDIATE PAST PRESIDENT: EILEEN JACKSON

SECRETARY: MARCIA HART

TREASURER: KATHY BARRETT

BOARD MEMBERS: PHYLLIS ARTHUR

LIZ CHARLTON

PASCUAL MACHIN

MIKI ICHIYANAGI

ULRIKE AHLBORN

MEMBERSHIP: ULRIKE AHLBORN membership@dvos.org

NEWSLETTER: JAMIE WASSON, LIZ CHARLTON
dvosnews@gmail.com

WEBMASTER: ULRIKE AHLBORN
webmaster@dvos.org

COMMITTEE CHAIRS:

GREENHOUSE TOURS: PARKY PARKISON

REFRESHMENTS: BRENDA ADAY & MIKI ICHIYANGI

RAFFLE AND SALES: SUSAN FETTER

JUDGING: NANCY AND TED McCLELLAN

EQUIPMENT AND LIGHTS: DAVE TOMASSINI

LIBRARIAN: PHYLLIS ARTHUR

COMMERCIAL MEMBERS

Commercial Plant Services

David & Alice Tomassini, 3 Woodside Ct.,
Danville, (925) 736-7630

www.commercialplantservices.com



C. Noname

