

The Garden Island Orchid Society

May - June 2007

Affiliated with the American Orchid Society

The GIOS newsletter is published by the Garden Island Orchid Society on a bi-monthly basis. Contact them at P. O. Box 1056, Hanapepe, HI 96716.

GIOS Board 2006/2007

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Refreshments: Gwen Teragawa
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General Meetings 2007:

June 8
August 10
August 23-26 Kaua'i Farm Bureau Fair
October 12
December 14 - Christmas party

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Coming Events

General Meeting - June 8 Our General Meeting will be held at the United Church of Hanapepe and our speaker will again be Scott Mitamura. This will be a continuation of our last meeting and Scott will be teaching us about grooming and staking our plants. We will be providing each member with a blooming dendrobium as a door prize and the member will in turn learn how to groom and stake it. If you have an orchid at home you need help in staking and grooming, bring it along. Also please bring your own **Linesman Pliers**. The club will supply the bamboo stakes, florist tape, clips, etc.

We will ask Scott to be our Orchid Doctor and to do Orchids 101--be there at 6:00 p.m.

Special Planning Meeting - June 10th. There will be a special planning meeting centered around the Farm Bureau Fair which will be held August 23 thru 26. It is very important that people step forward and volunteer for this important event. Please let Bob King know if you are interested in any particular position. The meeting will be held at his home at 2:00 p.m. on Sunday afternoon.

If you haven't done so, please renew your membership

President's Message

If anyone is interested in helping the club please let us know by phone or email. We are going to do the same as the Honolulu clubs to break members into the many jobs in the organization. We have two shows each year (our Spring Fantasy show and the Farm Bureau Fair layout). This requires a good number of volunteers to make them work. The board, show chair persons and committee positions usually are for two years, so there are changes to all of our jobs at least once every two years.

Since many of us are not getting any younger, we plan to match up those who are interested in doing any of the jobs with someone who has done the job before. This way it is a win for all, learning the job and doing it to great satisfaction. The club is here for all members to learn about orchids and growing them and showing them for prizes. One door prize each meeting more than pays for the entry fee into the club, plus refreshments and any expenses for the two shows a year. And believe it or not, it is fun! It also helps the club and members your inner self to be the best.

We begin by our next meeting June 8 and then on June 10 at my home in Hanapepe we will have a meeting about the farm fair show, making plans, setting up the basics, getting committees to assist and make it the show of shows for 2007. It is a very popular show with all the folks of Kauai. This is also the first year we will be selling our own plants versus having vendors from the outside.

Anyone interested is invited to attend this special session but we do need a head count. So if you wish to get involved see us at the June 8 meeting or give me a call or email me. Check the newsletter for the phone number or email address.

Bob King

Spring Fanstasy Show Revisited

The Spring Fantasy Show was discussed at our last Board Meeting and all present agreed that the feedback from visitors and participants in our show was totally positive. Our visitors particularly liked the blending of the orchids and art and many said this is what made our show stand out from others they have seen. Board members expressed their intention of encouraging this cooperation with the Hanapepe Economic Alliance.

We need to thank Carol Bain and Joanna Carolan and their companions for their leadership and the following members of the Garden Island Orchids Society for without them there would have been no show. These people brought flowers to show; sold orchids, crafts and food; arranged the tables; provided security and then helped to clean up. If we missed anybody in this alphabetical list, please let me know.

- Wayne Ajimura
- Flora Bukoski
- Coleen and Brian Kasperek
- Judy Matsumoto
- Miyoko Mukai
- Marlene Domingcil
- Bill and Yvette Hackett
- Florence Honjo-Rapozo
- Lisa Jackson
- Jerry Hollander
- Susie Kaohi
- Bob King
- Ada and Arie Koene
- Mildred Konishi
- Joann Lordahl
- Nancy Nakama
- David Neifert
- Anne Notley
- Mits Nozaki
- Bette and Gail O'Donnell
- Neill Sams
- Jerry and Lenora Sorensen
- Al and Amy Sugano
- Gwen Teragawa
- Edith Terrill
- Evelyn Tsubakihara
- The Yamadas
- Carol Yasutake,
- Hans and Sylvia Zeevat



I was informed that this Best Vanda winner is owned by Irene Nozaki.



David Neifert delivering his orchids.



Show chair Lenora Sorensen.



Gwen Teragawa, Susie Kaohi and Florence Honjo Rapozo in the kitchen.

Left: Now who forgot the instructions? That's Brian Kasperek, Allan Yamada, Al Sugano, Colleen Kasperek and Jerry Sorensen scratching his head. The young lady in the front was a guest.



Voila, it works. Sylvia Zeevat and Flora Bukoski admiring their handiwork.

Photos by Lenora Sorensen's guest, Ann Kromhout.

Minutes of General Meeting - February 2007

In the absence of the President, Bob King, the meeting was called to order by Gwen Teragawa. Discussion of the final plans for the Spring Fantasy were discussed and Anne Notley called for volunteers to help with the work for this show.

Lenora Sorensen explained the involvement in the Spring Fantasy Show with the Hanapepe Economic Alliance and answered questions relating to the promotion of this year's show.

She then told the membership about the Board's discussion of a new website for GIOS and called for a vote. The website and the budget for implementation and continuance of the website was approved unanimously.

Doug De Moss Presentation: Growing Vanilla Orchids

Mr. De Moss started with a handout prepared by Robert Itoman on "Vanilla Culture in Hawaii". It states, "we in Hawaii are fortunate to be living in an area where summer weather is with us year round. This condition makes it possible to grow any tropical plant outdoors.

'The vanilla vine thrives in tropical areas and Hawaii is no exception. Hikers who are familiar with the *Vanilla planifolia* will tell you it grows extremely well in some mountainous areas of Oahu and the island of Hawaii.

'Vanilla does best when grown under 50% shade and high humidity. Trees can be used for attachment; the vines will eventually make their way upwards as they grow. You can see good examples by visiting Foster Botanical Garden or Lyon Arboretum.

'If grown well, the insect problem is minimal...Under ideal conditions the vanilla vine will grow rapidly and start flowering in early spring.

'The ideal time to pollinate the flower is during the morning hours. Pollinate up to six flowers per cluster. Fruiting causes a heavy drain on the vine and, when excessive, the pods will be smaller in size and weight and may cause the vine to die.

'The first step in hand pollination of vanilla flowers is to pull the labellum (or lip) out completely leaving the column exposed. Next use a thin stick or similar object to lift the rostellum or flap exposing the stigma. With the rostellum up, the stamen is pressed downward with the left thumb until the pollen is smeared on the stigma. If the flower is still attached after a few days, it is a good sign a pod will develop.

'In seven to nine months, a yellow color will develop at the base of the pod. When the color is about 1/4 inch wide, the pod is fully matured and ready to pick. If you fail to pick the pod, it will crack. This is what you want to avoid. It can still be cured but it is of less value.

'After picking the beans (pod), you put them in a drying box and in the full sun each day for about a month. Only when this curing process is started will it begin to have its well-known aroma. Another curing method is to pick the pods and freeze them until all have been gathered. Then remove them

from the freezer and bring them to room temperature. Slowly bake the pods in an oven at a temperature of 113 - 131 degrees until they become pliable. The pods can be stored in a light proof box for about two months so the aroma can develop fully."



Vanilla orchid photographed in Costa Rica by Ada Koene.

Mr. De Moss added additional interesting information:

His experience was that it took approximately 3 years from initial planting to final product. Vanilla growing is a labor-intensive industry due to the need for hand pollination. Vanilla orchid vines were found in Mexico as long ago as a thousand years. The Spanish explorer, Cortez took some back to Europe but it took another hundred years before growing vanilla orchids began to spread due to lack of pollination. At the present time, the best quality vanilla is being grown in Madagascar.

The vine itself is easy to grow if you have a place it can climb: a shade house, a lathe, in low growing trees, a lattice work covered walkway...It grows up and then spirals down, looping back up and down as it expands.

First establishment of a vanilla vine is tough. If you want to attach it to a hapu log, cut the log in half lengthwise with a rough bladed saw. Wrap panty hose around log and cutting to hold it in place. The vine will immediately spread out on the ground and try to climb. But stop it from climbing until it is well established on the ground. After the root system is well developed (a bed of shredded hapu works well as the media and also peat, perlite, and cinder mixtures), and is several feet long, it will seek a place to start climbing. Feed it Nutracote on the root buds. When the buds start flowering is the only time ants will be interested in the vines. Rubbing alcohol plus Simple Green 50/50 with water will discourage the ants. Be sure to use this only in the late afternoon or in full shade.

Vanilla vines like climbing up a trellis but it will not flower until it loops over the top and starts hanging down. Looping it over and over is the best way to get it to flower. Every node on the vine can take root.

After 2 to 3 years, it should start flowering. Flowers occur only once a year for one day! You need to be out there early in the morning to start pollinating the flowers that open on that day. Expect approximately 10 flowers on a spike the first time. Successive flowerings, expect 6 to 8 flowers per stalk.

Write the date you pollinated the flowers on that stalk on a tag so you can watch the seed pods when they are about to come to term (9 months later) and pick them before the pod splits.

After picking the pods, dry them to get the best quality. Kill the bean immediately by boiling at 150 degrees for 5 minutes OR put it in the full sun until it turns black and starts to smell like vanilla. At night, keep the pods sealed up so they will keep drying and sweat the beans.

Following his presentation, Mr. De Moss had interested members try their hand at pollinating an orchid.

Cattleya Orchid Culture

By Scot Mitamura

There is no other orchid that can match the beauty, size, diversity, and fragrance of a cattleya orchid. It is universally accepted that when a person mentions an orchid, it's the cattleya that immediately comes to one's mind. It is because of that reason, the cattleya is known as the Queen of all orchids. Due to its adaptability and ease of culture, it is probably the most popular orchid genus grown.

Lighting and Shade

Ideal lighting for maximum growth is a full day of unobstructed sunlight (away from buildings or tall trees) with a shading of about 60-65%. This can be accomplished with shade cloth, wooden lath, Polycarbonate sheets (similar to fiberglass), or glass. Some orchid growers may use different combinations of both. Certain species may require more or less shade. Seedlings may also benefit from more shade. The general rule of thumb is that the leaves should be a medium olive green color. Soft dark green foliage is an indication of not enough sunlight.



Temperature and Humidity

In Hawaii we are fortunate to have near ideal temperatures and humidity for most cattleyas (low 60's to upper 80's in temperatures and 60 to 90% humidity). If you are growing cattleyas with the sophronites background (normally red cattleyas) you will want to keep them on the cooler side if possible. One way is to water them in the morning; the evaporation will keep them cooler throughout the day. Good air circulation is also very important in keeping the cattleyas cool. If you are still having difficulty in blooming your reds well, try giving them a light watering in the late afternoon, this will drop the nighttime temperatures a few more degrees, which might be all that's needed. Another method is to double pot your cattleyas. The outside pot will absorb the warm outside air temperature, keeping the inner pot and roots cool.

Watering

Understanding how to water your cattleyas is the key to success. Most cattleyas are killed by over-watering or by fungal and bacterial infections associated with over-watering. Cattleyas have pseudo-bulbs or swollen stems that have the ability to store moisture allowing them to survive during times of drought. It is important to allow the media to dry slightly, before watering again. When it is time to water, it should be done thoroughly, allowing water to flush through the pot's drainage holes. This removes accumulated salts from the media which can damage roots and eventually kill the cattleya. The sign of salt build-up

is the white residue around the rim and drainage holes of the pot. If you see this, repot the orchid and discard the pot.

Watering Rule - When in doubt, don't water. When its time to water, water heavily allowing the water to run out of the drainage holes.

Air Circulation

Cattleyas do not like stagnant air. Good air circulation will reduce fungal and insect problems. To accomplish this, stake up all orchids, keeping larger plants from covering smaller plants, and try not to overcrowd them. Keep areas around and below your growing benches plant and weed free.

Proper Cultural Practices and Pesticide Use

Practicing good culture will reduce your need for pesticides.

1. Learn to identify physiological disorders which are caused by poor culture. Some examples of this are; sunburn; not enough sun; improper watering; salt or wind damage and temperature stress. Spraying of chemicals will not help, but may harm the orchids more.

2. Diseases in cattleyas: For a disease to occur the pathogen must be present in an infectious stage and come into contact with the host plant. The environmental conditions must favor the infection and the plant must be susceptible. So our goal is to break the cycle of infection. The most common diseases of cattleyas are bacteria, fungus and viruses. Here are a few ways to control them.
 - a. Remove all dead and diseased plant materials. They are a major source of infection. Sanitation is the best defense against diseases.
 - b. Control weeds and pests in and around your growing area. Weeds and other plants may harbor insects that can transmit a disease.
 - c. Maintain good air circulation. Do not overcrowd your cattleyas.
 - d. Avoid damaging the cattleyas, as it provides an entry for disease.
 - e. Maintain proper sanitation when handling, sterilize potting utensils.
 - f. Quarantine new cattleyas and isolate diseased ones.

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3. Managing Insects: It is very important that you watch your cattleyas carefully and take care of problems as they occur. Most insect problems occur in the warm summer months and best time to spot problems is while you are watering. If you stay on top of things, spot spraying of pesticides may be all that is needed to rectify the problem. When using pesticides, always wear protective clothing and always follow label directions. See Insect Control Chart.

4. If protective clothing is not available, there are many ready to use 'soap' products on the market today that are

safer for the applicator and environment. See Home Remedy Chart.

Fertilizing

1. **Water Soluble Types:** Apply at a ½ rate, twice per month.
 - a. 20-20-20 balanced type, good for all orchids including seedlings.
 - b. 13-2-13 Michigan State formula. Helps to maintain proper media pH by using more Nitrate sources of Nitrogen (instead of Ammonia).
2. **Granular or Powdered Types:**
 - a. Mag-amp 7-40-6 - is good for flowering plants, but needs to be supplemented with another fertilizer that supplies more nitrogen,
 - b. Orchid Organic 5-15.5-14.5-has been used for many years. Organic fertilizers may tend to cause an earlier breakdown of the potting medium.
3. **Timed Release Types:**
 - a. Osmocote - has several formulas and lasts for three months.
 - b. Nutricote -13-13-13 plus micronutrients is a very good fertilizer and comes in different periods of release. It is convenient for those who may not have the time to apply foliar fertilizers on a regular basis.

Repotting

Repotting is essential to the health of your cattleyas. Even if an inorganic media is used the cattleya must still be repotted. Organic medias and old roots will decompose and start rotting, eventually killing the whole plant. Also, due to fertilizing, low or acid pH levels and toxic salt levels in old media will slowly cause the roots to die. Eventually setting back and even killing the plant. Generally, most cattleyas should be repotted every two years or less. Many hybrid unifoliate cattleyas will initiate roots after flowering, while many species and bifoliate will initiate roots prior to flowering. Each new growth will initiate roots only once, so it is important to repot cattleyas when the roots are moving. If you are doing it correctly, the next new growth should be as large, or larger than the previous growth. If it is smaller, you are doing something wrong. The pot size should be only large enough for two new growths. The use of larger pots will not allow the media to dry properly, potentially causing a fungal infection that will then lead to root rot.

Repotting Rule - The best time to repot is when new roots are forming from the new growth. Even if there are flower buds forming!

Sanitation

Great care must be taken when cattleyas are handled or transplanted. To reduce chances of the spread of bacterial, fungal, and viral diseases:

1. Avoid working on orchids that are soaking wet. Repot only when the media is slightly moist.
2. Work on a clean table top (a layer of newspapers works fine).

3. Sterilize pruning shears and other potting utensils - heat is the best method.

4. Wash hands in a 10% bleach solution and soapy water. These tasks must always be done before the next orchid is handled.

Old pots may be reused. They should be soaked a minimum of 15 minutes (I soak mine overnight), in a 10-15% bleach solution and scrubbed thoroughly, removing all white roots. Pots with salt residue should be discarded.

Types of Media

There are many types of potting mediums that will work well for cattleyas. It is important that the media provide good support, adequate drainage, and it should be readily available in your area and at a reasonable price. It is best that each person experiment with different types to find out what works best for their growing conditions, and the grower's cultural habits.

1. **Commercial Growers Mix** - This is just the name that I have given to what many of the commercial nurseries are using. The ratio is: Three to five parts of medium orchid bark, one to two parts #3 perlite (sponge rock), and one part Sunshine Aggregate Mix (Peat Moss). This ratio can easily be adjusted to suite your needs. The benefits of this media are its low cost, good plant growth, ease of repotting, and it will give you the least amount of root damage during repotting.
2. **#3 Blue Rock** - Excellent media for those who live in a high rainfall area. It is also good for tall plants in windy areas that topple easily. There is a Modified Blue Rock Mix of five parts of #3 Blue Rocks, two parts Perlite, and one part Sunshine Aggregate Mix.
3. **Hapu'u (Hawaiian Tree Fern Fiber)** - Excellent stability, longest lasting organic media, excellent growth.
4. **New Zealand Sphagnum Moss** - Best media to establish a young plant, or to revive an old plant that has no roots. Super growth. Keep evenly moist.
5. **Coconut Chips (Coir)** - Very good alone or as an amendment. Similar to the 'Commercial Grower's Mix'. May be difficult to obtain in certain areas.
6. **Cinders (Red or Black)** - Excellent growth, but hard on your hands and shears, roots are easily damaged during repotting.

Conclusion

Whether your cattleya has a tall spike with huge fragrant flowers, or if it's a well grown specimen with hundreds of flowers, there is no disputing the beauty of a well grown cattleya. There is no other orchid that can be as rewarding and has the ability to showcase the skills of the grower more than the cattleya. So take upon yourself to see how well you can grow your prized cattleyas, you won't be disappointed.

Scot Mitamura is an Orchid Horticulturalist for the Honolulu Botanical Gardens, City & County of Honolulu and is a newspaper garden columnist for the Honolulu Advertiser. He can be contacted at Foster Botanical Gardens at (808)522-7060, or you can email him at hbg@honolulu.gov.



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