

The Garden Island Orchid Society

Kaua'i, Hawaii

November-December 2006

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.

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President: Bob King, 335-3677,
bking7@hawaiiantel.net
Vice Pres. vacant
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thekoenes@cs.com
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General Meetings 2006/2007:

Christmas party - December 8th
February 9
March 30-31 Spring Fantasy Show
April 13
June 8
August 10
October 12
December 14 - Christmas party

Board Meetings 2007:

January 14
March 11
May 20
July 8
September 9
November 11

Announcements

December 8th - Christmas Party. Many members answered our questionnaire by indicating that they would like to have a potluck this year for Christmas. Thus, the party will be held at the United Church of Christ in Hanapepe, our regular meeting room. It will start at 6:00 p.m. and bring a \$5 gift to exchange.

Please call Gwen Teragawa at 335-3890 or Lenora Sorenson at 742-8316 and let either one know what you are bringing so we can have a well-rounded menu?



March 29, 30, 31 Spring Fantasy Show The spring orchid show at Hanapepe will be March 30 from 1:00 p.m. to 6:00 p.m. and March 31 from 9:00 a.m. to 4:00 p.m. Set up will be Thursday March 29 from 1:00 p.m. Keep the date free for helping to set up and to bring your plants for showing from 4:00 p.m. until about 5:30 p.m.

Scot Mitamura did not have the name tags for the hono hono passed out for the door prizes in October. Please mark them as follows: Den. Little Sweetheart (Den. Anosmum x Den. rhodopterigium).

President's Message

We look forward to December 8 and the potluck Christmas party which will be held at the United Church of Christ Hall in Hanapepe. We would like to ask for volunteers to come early to help set up tables and chairs. This would be much appreciated. There won't be a speaker for that evening nor a Orchids 101 session. Bring yourselves and a dish to share and have fun. There will be bingo games with prizes and Christmas music from CD's with no live entertainment (unless you wish to participate). It is the one time of the year that we can all relax.

To cut down on the size of the newsletter, the board has decided to not include minutes from the board meetings. However they will be available at the library table at all meetings.

Some of the Honolulu clubs have raised their prices for 2007. The board felt we were doing fine and will leave the price as it is at \$15.00. Please note that your dues for 2007 can be paid at the Christmas Party or you can mail them to GIOS, P. O. Box 1056, Hanapepe, HI 96716. Don't forget to include or make changes to your e-mail addresses or notify Ada at thekoenes@cs.com directly.

Bob King
President

Hono Hono Orchid Culture

By Scot Mitamura

The Hono Hono Orchid or *Dendrobium anosmum*, has been a Hawaiian favorite for many years. The Hono Hono in Hawaiian refers to the plants' growth habit of alternating leaves, very similar to the introduced and invasive weed, *Commelina diffusa*. Oddly it's the flowers and their exquisite fragrance and not the leaves that keep people excited about growing this orchid. Another interesting fact about this orchid is that its botanical name *anosmum*, actually means scentless! My only guess is that some taxonomist was probably looking at a dried sample, because there is no mistaking the unique fragrance that the Hono Hono has. For this article and simplicity sake, I am including the related species and hybrids of *Dendrobium anosmum* together, since they share similar cultural requirements.



To grow the Hono Hono orchid well we must first learn a little about it and where it comes from. Its origin is quite widespread throughout Southeast Asia. This tells us that their dry season is opposite from ours in Hawaii, therefore we need to manipulate our culture to provide the proper environment, enabling us to flower the Hono Hono well.

Here is a Hono Hono checklist.

Dormant Cycle

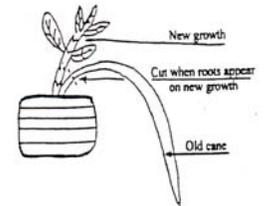
This cycle runs from December to February. Dormancy begins when nighttime temperatures drop and watering is reduced. Keeping the orchids dry during our wet season could be difficult. One way is to move them under cover (Polypropylene roof or under the eaves of the house). If the Hono Hono does not go into dormancy, flowering will be poor. Next season's new growth will emerge before the buds and will compete with bud formation.

December/January Decrease watering to two times per week, making sure that the orchids are drying between waterings. Do not fertilize, tap out any timed released fertilizer from the pots. The Hono Hono Rule: The day that you will eat the most (Thanksgiving Day), is the day that you starve your Hono Hono. It is a good sign when the leaves begin to turn yellow and fall off. The Hono Hono is actually pulling back and is storing all of its energy into the plump and bare stems (pseudobulbs).

February Buds should begin to form along bare stems. At this time they are very vulnerable to flower thrips, which will turn the small buds brown, resulting in few to no flowers. Next year's shoots will start forming from the base of the flowering cane.

Flowering Cycle

The flowering cycle normally occurs during the months of March to May. Using several different species, hybridizers are making new crosses that bloom at slightly different times. But generally most Hono Hono will flower during this time of year.



March/April/May The flower buds should become larger and begin flowering. Increase watering to once per day. Check flowers for unusual markings or crippling. This could be symptoms of virus. These plants need to be culled, as there is no cure for viruses. Try to keep water off the flowers, as it will shorten their life. Continue to watch for flower thrips.

Planting Cycle

This is the best time of year that the Hono Hono should be planted or repotted. As new shoots develop so will the new roots. Planting should be done when the new roots are one to two inches long. Avoid damaging the tender root tips. The most common media used with pots, is a bark mixture (Approximately 3 parts medium orchid bark 2 parts peat moss, and 2 parts perlite). My favorite is New Zealand Sphagnum Moss. Others like to mount them on Hapuu (Hawaiian Tree Fern), or onto cork. One caution when mounting is that you really need to water heavily.

May/June/July Continue watering every day or more if possible. Begin fertilizing with a water soluble type of fertilizer. The new growths emerging from the base of the recently bloomed stems should be about four inches long with new roots forming, before the old stem is removed. Make sure that you sterilize your pruner between plants (A propane torch is best). Viruses are the most deadly disease of Hono Hono and is mostly spread by your pruner. Label cut stems and cut them into 4-5 inch segments. Place them in a shallow tray containing a peat moss based potting soil. Keep them in a shady area and allow the keikis to emerge. Treat the area for slugs. Older plants should be repotted every two years. The old media will sour and contain excessive amounts of salts. Flowering on the third year and beyond will become less and less.

Growing Cycle

During this time the Hono Hono is in its most active growing stage. They are heavy feeders and want abundant water. Grow

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them in an area of filtered sunlight. Avoid direct midday sunlight, unless you are close to the mountains and have a lot of cloud cover.

June/July/August/September/October/November Continue watering once per day or more. Fertilize twice a week with a one-half strength, balanced, water soluble fertilizer. Inspect new shoots for thrip damage (browning of the new leaves in the whorl). Also caterpillars can affect the new leaves. Inspect the undersides of the leaves for spider mite damage (silvery to browning, with tiny red dots). Stop fertilizing by mid November.

By following some of these basic rules of growing the Hono Hono, you too can be successful. By collecting the

different types of Hono Hono, you may be able to stretch their blooming season from February to June. Just imagine having the beautiful flowers and wonderful fragrance for one third of the year! The best thing about growing Hono Hono orchids is that everyone is able to share their extra keikis with friends. This is truly what makes orchid growing fun in Hawaii!

Scot Mitamura is an Orchid Horticulturalist for the Honolulu Botanical Gardens and has been growing and hybridizing orchids for over 38 years. He can be reached at hbg@honolulu.gov.



GIOS Tours Kauai's Hindu Temple

On November 11, twenty-five GIOS members gathered at the Kauai Iraivan Hindu Temple for a close look at the work in progress.

There were not many orchids in bloom at the time of our visit but as one of our members commented: "We can see orchids anytime but how often do we have a chance to see this." By this he meant the beautiful botanical gardens surrounding the temple and the breathtaking view of the Wailua River and the Nani Kua Falls and pond below us.

Work on the hand-carved stones for the temple started in 1990 in a stoneworkers village in Bangalore, India. The first carved stones arrived on Kauai to be erected in 2001. At the same time, seven carvers came to Kauai to erect the stones.

Private visits are also possible. Check the temple website www.gurudeva.org/visiting.html for tour days.



(Left) Treasurer Jerry Holland tries his hand at stone carving.

(Right) Paramacharya Palaniswami with his favorite grammatophyllum (taken at a previous visit.)



Home-Made Orchid Remedies and Treatments

By Scot Mitamura

Orchid Horticulturist for the Honolulu Botanical Gardens

One of the major stumbling blocks for beginning orchidists is that they feel that they must use harsh pesticides to be successful. Many of these are very expensive and must be purchased in quantities that would need to be stored over a long period of time. This can cause a potential environmental hazard. Most often, the new orchidists will not have the required personal protection equipment (eye protection, rubberized rain gear, gloves, and respirator), to properly apply these chemicals.

As a hobbyist orchid grower, it is not necessary to use pesticides in a preventative manner, such as a commercial orchid nursery would. Using pesticides in this manner can potentially develop resistant strains of disease organisms and cause harm to your orchids, yourself, and the environment. Since there is no intent to sell or ship the orchids out of state, we can tolerate a few imperfections on the orchids, and still produce high quality flowers. The main goal is to grow and produce beautiful orchid plants and flowers for our own personal enjoyment. The purpose of this article is to provide easy alternative methods in treating many of the common pests of orchids. To be successful with these methods, it is imperative that they are used in conjunction with good cultural practices. But first, we need to have an understanding of what our responsibilities are as an orchid grower, and we also need to be able to identify some of the common ailments that affect our orchids.

Physiological Disorders

It is important to identify physiological disorders of orchids. These are ailments that are not caused by insects or disease, but are caused by poor culture. Some examples of this are; excessive sunlight (sunburn) or not enough sunlight, improper watering, salt or wind damage, temperature stress, and root die back (from old media). In every case, it is up to the grower to supply the proper environmental conditions for the various orchids we are growing. Spraying of chemicals will not remedy any physiological disorder.

Insects

It is very important that you watch your orchids carefully and take care of problems as they occur. Most insect problems (aphids, thrips, spider mites, and mealy bugs) occur in the warm summer months and will feed on soft new growth

and flowers. The best time to spot problems is while you are watering. If you stay on top of things, spot spraying of these home remedies may be all that is needed to rectify the problem.



Mealy Bugs

a. Try to maintain a spotless growing area. Remove all faded flowers and dead leaves promptly, as they are a major source of infection. Sanitation is the best defense against insects and diseases.

b. Control weeds and pests in and around your growing area. Weeds and other plants in the collection often harbor insects that can transmit diseases.

c. Maintain good air circulation. Stake up all orchids and provide adequate spacing between them.

Diseases

For a disease to occur the causal agent or 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 orchids are bacteria, fungus and viruses. Here are a few ways to control them.

a. Water orchids early in the day, allowing them to dry before nightfall. Do not let puddles of water accumulate around your growing area.

b. Avoid the temptation of watering newly repotted orchids. During repotting, any part of the orchid that is cut or damaged could provide a path of entry for diseases. Water is a great carrier of bacterial and fungal diseases.

c. Maintain proper sanitation when handling your orchids. It is very important to sterilize all potting implements such as; pruning shears, stakes, pots, table top, and your hands).

d. Quarantine new orchids for at least two weeks and isolate diseased ones from the rest of the collection.

The answer could be found in your kitchen or bathroom cabinet!

The following, are just a few concoctions that I feel might work well in Hawaii.

Please remember that you are using them at your own risk. I am not making any endorsements, and I take no responsibility for your orchids or for any bodily injury. There has been no scientific study done on application rates, toxicity levels, or target pests. Use with caution and experiment on a few orchids first. Even though these are homemade remedies, they are still chemicals and personal protection is still important. Use caution when applying. Never apply any of these remedies in the heat of the day as they can potentially bum the sensitive tissue of the new growths and flower buds. Do not apply any chemicals on hirsute (hairy) orchids. Do not store any left over mixtures, doing so in an infraction of federal labeling laws, which require identification and caution statements.

Insecticides

Soft bodied insects, such as mealy bugs, aphids, and thrips

1. Straight 70 isopropyl rubbing alcohol - touch insects with a soaked cotton swab or spray entire affected area of plant. Repeat every two to three days. Apply in the early morning or late afternoon, when cool. A typical sprayer top can be put on to the alcohol bottle.
2. Garlic/Pepper Spray - liquefy 2 bulbs of garlic and 2 hot peppers in a blender $\frac{1}{2}$ to $\frac{2}{3}$ full of water. Strain and add water to make 1 gallon of concentrate. Use $\frac{1}{4}$ cup concentrate per gallon of water.

Hard shell insects such as scale, also for spider mites

Mix 1 to 3 teaspoons of cooking oil and 1 teaspoon of liquid dish washing soap into a quart of water. Shake well and spray plant thoroughly wetting the affected surfaces. Repeat every 2 to 3 days. The soap will breakdown the waterproof coating of the insects' shell and the oil will smother them. Apply only when cool.

General purpose sprays

1. Water - When watering use high pressure to water heavily, wet all parts of the orchid, especially under the leaves. Water will disrupt the feeding and egg laying of white flies, mealy bugs and spider mites. When repotting if you find a scale infestation, use high pressure to remove scales off of pseudobulbs.
2. Neem Oil - acts as an insect repellent, as well as a fungicide, nematocide, and even molluscicide!
3. Fantastik or Formula 409 - Add 1 cup of the household cleaner/degreaser, with 1 cup of rubbing alcohol, and mix with 2 cups of water. This solution can be sprayed directly on all affected areas.
4. Orange Plus household cleaner - can be sprayed undiluted.

Ant Eliminator

Melt $\frac{1}{4}$ pound of candle wax, then slowly stir $\frac{1}{4}$ cup sugar and 4 ounces of Boric Acid Powder. When thoroughly mixed, pour into a pan, creating a $\frac{1}{4}$ to $\frac{1}{2}$ " slab. Cut into chunks and distribute around the greenhouse. Keep away from children and pets.

Fungicides

Cinnamon Powder - has many medicinal uses and is a known natural fungicide.

1. Powder - can be applied directly onto the affected part of the plant by dusting heavily.

2. Paste - mix powder with cooking oil to form a thick paste that can be put directly onto the cut parts of the orchid.

3. Spray - combine 2 tablespoons of cinnamon powder into a pint of isopropyl alcohol, shake well and let stand overnight. Filter solution through a coffee filter and use the brown liquid as an all purpose fungicide spray. It is even good for damping off of deflasked seedlings. For a combination fungicide/insecticide - put 1 cup of the cinnamon/alcohol extract into a pint bottle, add 2 tablespoons of dish washing detergent and top off with water. Use as a spray.

All Purpose Disinfectants

1. Listerine or Hydrogen Peroxide - For crown rot or other infected areas, pour directly onto the infected area and let stand for 5 minutes. Tilt the plant to remove the excess liquid.
2. Chlorine Bleach - add 1 ounce of household bleach into a gallon of water. Spray the solution directly onto cutting tools, benches, walkways, and even onto the plants. Bleach will help to control fungus, bacteria, and algae.
Sterilize used pots with a 10-15 bleach solution, let stand overnight. Make sure that all white roots are removed with a scouring pad, as they may contain viruses.

Slug and Snail Treatments

1. Traps - put a plate or saucer full of fresh beer on the floor, snails and slugs will be attracted to it, fall into it and drown.
2. Spray - Mix left over coffee 50/50 with water or stronger and spray. It seems to work well on the tiny bush snails.
3. Baits - put slices of raw potatoes near the plants. Slugs and snail can be collected in the morning.
4. Barriers - create barriers in your growing areas to prevent slugs and snail from crawling onto the benches. You can put sandpaper, copper foil, Tree Tanglefoot, or even Diatomaceous Earth, onto the legs and tops of benches.

Weed Herbicide

Spray full strength household vinegar on weeds, repeat daily as needed. This is not to be used for weeds growing in the pots of the orchids. Use only on the greenhouse floor, surrounding areas, walkways, driveways, etc.



Boisduval Scale

Scale

The Garden Island Orchid Society

2006 Membership Form

Our dues for membership are \$15.00 a year and are due January 1, 2006. They should be paid by the end of February if you wish to continue to receive your newsletter.

Please make checks payable to the Garden Island Orchid Society or GIOS.

Treasurer, Garden Island Orchid Society
P. O. Box 1056
Hanapepe, Kauai, HI 96716

Member's/Applicant's Name _____ E-mail address: _____

Mailing Address: _____ City: _____

Phone/Fax number: _____

I am interesting in helping out with (check any or all):

Refreshments _____, Show Set-Up _____, Show Security _____, Serving on the Board _____

Newsletter _____, Other (please specify): _____



Garden Island Orchid Society
Ada Koene, Editor
P. O. Box 1624
Koloa, HI 96756