



Ka Lono Pua

"The Flower News"

Vol. XI No. 3 August 2004

Cooperative Extension Service, Oahu County

Project Survey Results

In June a survey was sent out to a large sample of Oahu's flower growers. Approximately a third of the surveys we sent out have been returned. Mahalo for helping in this effort.

A number of interesting things were revealed in our initial analysis of the results. Over half of the replies came from full-time growers. The rest were part-time growers, florists, retailers and others. Twenty-eight growers said they grow orchids, 26 grow ginger and heliconias, and 11 grow pikake.

The biggest problems for the growers were insect pests (48%) followed by weeds (29%) and then diseases (22%). Pesticide issues (15%) and non-chemical controls (12%) were the next biggest problems.

We are continuing to do a more detailed analysis of the data and hope to develop a program to attack some of the major problems listed in the next few months.

If you still have your survey around, it is not too late to complete and return it to us. Mahalo.

In This Issue...

- ◆ Nematode Control
- ◆ RFID Technology Coming Soon
- ◆ Pesticide Risk Reduction Short Course
- ◆ New CTAHR Publications.....and more

Future Happenings

- Aug 17-19 Pesticide Risk Reduction Education Short Course, KCC, See page 2.
- Aug 20 Statehood Day Holiday
- Aug 20-22 Made in Hawaii Festival, Honolulu, www.madeinhawaiifestival.com
- Aug 20-22 Nursery/Landscape Expo, Houston TX 800-880-0343 www.txnla.org
- Aug 26-28 FarWest Show, Portland OR, www.farwestshow.com
- Aug 28 Children's Garden Open House, Urban Garden Center Pearl City, 9 a.m. – 2 p.m.
- Aug 28 Growing Plants and Trees for Hula Lei, Leeward CC 8a.m. – noon. 956-8204 npi@hawaii.rr.com
- Sep 6 Labor Day
- Sep 9-10 Southwest Horticultural Trade Show, Phoenix, Arizona Nursery Association (480) 966-1610
- Sep 11 Growing Plants and Trees for Hula Lei, Windward CC 8a.m. – noon. 956-8204 npi@hawaii.rr.com
- Sep 22-23 Western Nursery and Garden Expo., Las Vegas, (916) 928-3900 or (800) 748-6214; www.westernexpo.com
- Sept 22 –25 Oregon Assoc. of Nurserymen Convention, Maui, www.oan.org.

Risk Reduction Education Short Course

Location: Kapiolani Community College

Tues. August 17, 12:45–4:15

Wedn. August 18, 8:30–4:15

Thur. August 19, 8:30–4:15

This 2-1/2-day short course will benefit those who want to be better informed about proper pesticide handling and to prepare for the Hawaii Department of Agriculture's certification exam for restricted use pesticides. An instructor from the UH College of Tropical Agriculture and Human Resources will emphasize the study packet's "core" materials, which provides information common to all categories of certification. Topics include:

- Types & formulations of pesticides
- Pesticide labeling & MSDSs
- Laws and regulations about buying, storing, transporting, applying, disposal, employee protection
- Integrated pest management basics & alternatives to pesticides
- Common pests' general identification features & life cycles
- Common application equipment
- Dilution and dosage calculations
- Pesticide movement and breakdown
- Groundwater protection
- Endangered species protection
- Carry-over, resistance, phytotoxicity
- Hazards to pesticide handlers
- Protective clothing and equipment
- Safe mixing, loading, & application practices
- Proper transport, storage, & disposal.

Since the instructor will not cover the study packet's "category-specific" materials, trainees who plan to take any of the certification exams are advised to study all of the material in the packet. The registration fee covers instruction, handouts, and one complete study packet for the certification

category which the trainee marks on the registration form.

The free leaflet "Test Your Math Skills" is available from the instructor or from <http://pestworld.stjohn.hawaii.edu/pat/schedule.html>. The leaflet presents exercises and answers that will help trainees refresh basic math skills needed to understand the instructor's calculation examples. Trainees who find the exercises difficult will get more benefit from the short course if they seek tutoring before the course begins.

Contact: Charles Nagamine (808) 956-6007
charlie@hpirs.stjohn.hawaii.edu. Website: <http://pestworld.stjohn.hawaii.edu/pat/schedule.html>

Peat Prices Going Up

Have you noticed the rising price of peat? Two main factors are contributing to the increase in Canadian peat costs. Both U.S. and Canadian trucking companies added surcharges to freight to cover the increased fuel charges this past spring. The distance the peat is shipped can have substantial impact on the freight costs according to peat producers.

In addition, the price increases are due to the drop in the value of the U.S. dollar compared with the Canadian dollar. In recent days the "loonie" – as the Canadian dollar is called – has settled a little compared to the U.S. dollar. But last year the loonie gained 21%. This has reduced the income of the Canadian peat producers. To compensate they raise their prices.

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The world is full of fools and faint hearts, and yet every one has courage enough to bear the misfortunes and wisdom enough to manage the affairs of his neighbor.

– Ben Franklin

# Ho'oulu Hou: Growing Plants & Trees for Hula Lei

Saturday, Aug 28, 8:00-12:00 Leeward CC  
Saturday, Sept 11, 8:00 – 12:00 Windward CC

Native Pathfinders, an environmental educational non-profit organization, and UH CTAHR Dept. of Natural Resources and Environmental Management will facilitate two educational workshops on O`ahu. The workshops will focus on effects we all have on the forest ecosystems and to encourage and motivate everyone to grow lei plants and trees in urban and suburban settings.

The program will feature Marie McDonald, Heidi Bornhorst, and Brian Choy as speakers who will introduce lei trees and plants that are readily grown in the home garden. There will be plants, books and lei making demonstrations.

The workshop locations were chosen to represent two different climatic and regional areas on O`ahu. The workshop at Leeward Community College will focus on plants and trees that will thrive in a drier type of climate. The workshop at Windward Community College will feature plants and trees that will thrive in a wetter type of climate.

The cost of each workshop is \$10. Check the website for a workshop registration form. Send it with payment to:

UH Conference Center  
2530 Dole St., C404  
Honolulu, Hawai`i 96822

Separate registration forms are required for each person. Make checks or money orders for conference registration payable to: Native Pathfinders.

**Contact:** UH Conference Center 956-8204  
[npi@hawaii.rr.com](mailto:npi@hawaii.rr.com) or **Website:**  
[http://www.ctahr.hawaii.edu/rnre/Lei\\_Plant\\_Worshops.asp](http://www.ctahr.hawaii.edu/rnre/Lei_Plant_Worshops.asp)

# New Resources from NRCS

The National Resources Conservation Service (NRCS) has published "Taking the First Step: Farm and Ranch Alternative Enterprise and Agritourism Resource Evaluation Guide." It is a workbook to help farmers and ranchers identify alternative income-producing agricultural enterprises and agritourism opportunities. The guide helps farmers and ranchers make an assessment of their natural, family and community resources to prepare for developing a business and marketing plan.

"Alternative Enterprises and Agritourism: Farming for Profit and Sustainability Resource Manual" is another new publication of NRCS. It contains a brief description of publications, books, articles, websites, resource people and in some cases the entire publication. It is contained in a 2,300 page resource manual. It is also available in CD or a 225-page paper copy of the table of contents and abstracts.

Alternative Enterprises – For High Profits, Healthier Land; Value – Added Agriculture; and Heritage Tourism are some of the other resource information sheets available.

These resources and additional information are available at the Resource Economics and Social Sciences Division website [www.nrcs.usda.gov/technical/RESS/altenterprise](http://www.nrcs.usda.gov/technical/RESS/altenterprise) or by calling 202-720-2307 or writing Natural Resources Conservation Service, Resource Economics and Social Sciences Division, PO Box 2890, Washington, DC 20013.

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One woman was talking to another on the telephone: "I ran into an old friend from high school the other day and she looked marvelous! She hadn't gained an ounce, and she didn't have a single wrinkle...so I ran into her again."

-Shoebox Greetings

RFID Technology Coming Soon to a Store Near You

Radio Frequency Identification (RFID) is a technology that uses radio waves to identify people or objects automatically. This is done a number of ways. The most common method is to store a number that identifies a person or object and perhaps other information on a microchip. The chip is attached to an antenna and together they are called an RFID transponder or tag.

An interrogator or reader sends out electromagnetic waves to the tag antenna, which is tuned to receive these waves. The passive RFID tag draws power from fields created by the reader and uses it to power the microchip's circuits. The chip then transmits through the antenna the identification information to the reader. It converts the radio waves into digital information that is then passed on to computers.

Many major organizations, including Wal-Mart, Target, and the United States Department of Defense, have adopted the use of radio frequency identification technology to track goods in their supply chain. RFID has the potential to solve a wide variety of problems, such as counterfeiting, inventory inaccuracies and complying with the increasing number of track-and-trace regulations. The new tracking systems give companies the potential to increase efficiency.

Consumers may also benefit from RFID technology. According to the National Retail Federation (NRF), some of the benefits include faster recovery of stolen items, improved security of prescription drugs, more reliable product recalls and improved food safety and quality.

Wal-Mart Stores, Inc. announced plans for expanding its trial of RFID tags. "We discussed implementation plans with our next top 200 suppliers," said Linda Dillman, executive vice president of Wal-Mart in *Information Week*. "Over the next 16 months, we also plan to significantly increase the number of Wal-Mart

stores and Sam's Club locations where customers can benefit from this revolutionary technology."

By June 2005, Wal-Mart expects to have the RFID project in up to six distribution centers across the United States, and as many as 250 Wal-Mart and Sam's Club locations, according to *Information Week*. By October 2005, that number will jump to approximately 13 distribution centers and as many as 600 Wal-Mart and Sam's Club stores.

NRF has developed an RFID Resource Center, which provides a comprehensive source of information related to RFID. "RFID is quickly becoming a reality for retailers," said Hogan. "This resource center is designed to keep retailers informed with the latest developments and reach out to consumers to create awareness of the exciting benefits of this emerging technology." The RFID Resource Center is located at www.nrf.com/rfid.

Time will tell whether the big box stores will demand that nurseries use the RFID technology for their products. We struggled through the adoption of bar codes. It pays to keep abreast of this new technology so we are not caught off-guard.

SARE – Sustainable Agriculture Research and Education Program

Learn more about the SARE program the easy way ~ via streaming video.

Episode Nine - "The SARE Program"

<http://www.csrees.usda.gov/newsroom/partners/partners.html>

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**We are what we repeatedly do.  
Excellence, then, is not an act, but a habit.**

**- Aristotle**

## New Publications from CTAHR

The following CTAHR publications have been released this year.

### \*\*\* For-Sale Publications \*\*\*

Common Forest Trees of Hawaii (native and introduced)

A CTAHR Reprint of USDA-FS Agricultural Handbook 679 by Elbert L. Little Jr. and Roger G. Skolmen 377 pp. plus 12 pp. in color, reproducing paintings by Isabella Sinclair; comb-bound. At:

<http://www.ctahr.hawaii.edu/ctahr2001/PIO/forsale/forest.pdf>

### \*\*\* Free Publications \*\*\*

The publications listed below by their subject category are now available for downloading from the CTAHR free publications web page. Go to: <http://www.ctahr.hawaii.edu/freepubs>. If you don't have internet access, contact our office at 622-4185 to request a copy.

#### --Insect Pests

Pest Management Strategies for Anthuriums  
Arnold Hara, Marcel Tsang, Christopher Jacobsen, Julie Ann Yogi-Chun, Trent Hata, Ruth Niino-DuPonte, IP-17, 23 pp. At:  
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-17.pdf>

#### --New Plants for Hawaii

Evaluation of University of Hawaii Anthurium Accessions, 1986-2001, Jennifer Ehrenberger, Heidi Kuehnle, Tessie Amore, NPH-10, 20 pp.  
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/NPH-10.pdf>

#### --Ornamentals and Flowers

Hapu'u (Hawaiian tree fern), OF-16, has been revised to warn about the invasiveness of non-native tree fern species.  
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/OF-16.pdf>

--Protect yourself from pesticides  
CTAHR translations coordinated by Sabina Swift, 3 pp. In Lao, Tagalog, Ilocano, Cambodian, Korean and Chinese.  
<http://www.ctahr.hawaii.edu/ctahr2001/PIO/FreePubs/FreePubs08.asp>

#### --Plant Disease

Identifying Anthurium Flower Injuries  
Brian Bushe, Wayne Nishijima, Arnold Hara, Dwight Sato PD-25, 7 pp, slightly revised and reformatted version of HITAHR Brief 073, 1987. Available on Web only.  
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/PD-25.pdf>

Anthurium Decline: Options for Controlling Burrowing Nematode, Brent Sipes, Heidi Kuehnle, Joanne Lichty, Kelvin Sewake, Arnold Hara, PD-26, 2 pp.  
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/PD-26.pdf>

#### --Soil and Crop Management

Testing for Soil Nitrogen and Phosphorus for Environmental Pollution Monitoring, Mike Robotham, Chris Smith, Hector Valenzuela, SCM-6, 3 pp.  
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/SCM-6.pdf>

Summary of Production and Handling Recommendations for Selected Foliage Plants, Andrew Kawabata, Wayne Nishijima, SCM-7, 2 pp.  
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/SCM-7.pdf>

[Revised] Testing Your Soil: Why and How to Take a Soil-test Sample, Revises AS-4; includes revised ADSC soil sample form.  
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/SCM-9.pdf>

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“Never go to bed mad. Stay up and fight.”
- Phyllis Diller

Nematode Controls

Nematodes are round, unsegmented, aquatic worms. Their activities always relate to the presence and quantity of water. Not all nematodes cause problems, many are beneficial; in fact some are sold to control insects or other pests. However, a few nematode species have been major pests of flower and ornamental crops. Most of these are microscopic.

Various nematodes attack plant roots, stems and leaves. Their feeding removes carbohydrates and nutrients from the plant and causes injuries where secondary plant pathogens can invade. The typical signs of root attacking nematodes are stunting and wilting even when the roots are in moist media or soil. Other problems may also cause these symptoms so it pays to be sure of the actual cause of symptoms before treating crops.

There are a number of non-chemical controls that can be used to help reduce their populations. Starting with clean plant material is an essential first step. Using clean pots and media and preventing infestation are next. For field grown crops, totally eliminating the soil nematode population is nearly impossible. The numbers of nematodes can be reduced by using a fallow period that is free of weeds or by planting a non-host crop between main crops. Some crops have cultivars that are nematode resistant or use resistant rootstock for grafted plants. Adding compost to the soil, steam and solarization of the soil have also been used.

For more information on controlling nematodes read “Plant-parasitic Nematodes and Their Management”, “Foliar Nematodes on Orchids in Hawaii” and “Burrowing Nematodes on Anthuriums” all found at: <http://www.ctahr.hawaii.edu/ctahr2001/PIO/FreePubs/FreePubs08.asp#PlantDisease>.

In long-term crops, chemicals may be the only viable method of controlling nematodes. The chemicals that are used are either “Restricted Use” (Nemacur and Telone), being taken off the market

(Methyl Bromide) or very toxic and difficult to use (Vapam). For growers without a private license many of these are of no help.

Growers now have several newer and safer nematicides they can use. One that was recently written about in the CTAHR bulletin “Anthurium Decline: Options for Controlling Burrowing Nematode” is DiTera[®] manufactured by Valent BioSciences. For a copy of the bulletin see the website sited above.

DiTera[®] is an environmentally compatible natural product derived from the fungus *Myrothecium verrucaria*. It comes in three formulations: a wettable powder, granular and a water dispersible granule. It is effective in controlling a wide variety of plant pathogenic nematodes including root-knot, reniform, lesion, spiral, burrowing, cyst and other types of nematodes.

Parkway Research produces three plant-based nematicides: Neo-Tec[®] is a .56% extract of 4 different plants, Neo-Tec S.O.[®] is a 50% solution of sesame oil and Neo-Tec G.S.O. is a granular formulation with 2.60% sesame oil, 2.6% lecithin and the rest granulated paper fiber.

Although these products are biologically derived, growers must always read and follow the label directions. Test the material for efficacy and phytotoxicity on a few plants before treating your entire crop.

This article is provided for guidance in controlling nematodes and is not a recommendation. Reference to a company or product name does not imply approval or recommendation of the products by CES, CTAHR, UH, or USDA to the exclusion of others which may be suitable. Brand names are used for product name recognition and are not intended to discriminate against similar products not mentioned or to recommend only those mentioned. The author, CES, CTAHR, UH, or the USDA assumes no liability resulting from the use of this information.

Children's Garden to Open Later This Month

Mark your calendars: on August 28, from 9 a.m. - 2 p.m., the Urban Garden Center (955 Kam Highway, Pearl City) will celebrate the grand opening of its long-awaited Children's Garden.

Four years in the making, this 54,000-sq.ft. landscape includes eight gardens to delight and educate the entire family. A Pizza Garden offers five wedge-shaped beds of plants that can be used as pizza toppings. Access railings and plants that can be seen, touched, and smelled make the Sensory Garden available to all visitors, including the physically challenged. There are gardens of plants named for animals or for household objects, and a garden that attracts butterflies and moths. The names of native trees are used to highlight the 13 letters (okina included) of the Hawaiian alphabet. The formal grace of the Sundial Garden complements the natural feel of the boglike Boardwalk Garden.

The opening features fun activities, door prizes, and a plant sale. Admission and parking are free. For more information, please call Ethel Murata at 453-6050. Mahalo to the hardworking faculty and staff members of the UGC and the more than 150 volunteers who have contributed to this beautiful and appealing space. Please come help us celebrate their accomplishment.

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When the fellow called a motel and asked how much they charged for a room, the clerk told him that the rates depended on room size and number of people. "Do you take children?" the man asked.

"No, sir," replied the clerk. "Only cash and credit cards."

*-Successful Meeting Magazine*

## Chase Research Garden's Free Information

Ann Chase was a Professor of Plant Pathology at the University of Florida for fifteen years before she retired in 1994. She directed research on diagnosis and control of ornamental diseases, especially tropical foliage plants. Over the past 24 years, she authored over 700 scientific and popular papers, as well as a number of books.

After retiring from U. of F. she established Chase Research Gardens. To provide funds for the gardens and her research there are a number of products you can purchase including a subscription to the newsletter. But there are a number of articles you can download from their website at:

[www.chaseresearchgardens.com/articles.html](http://www.chaseresearchgardens.com/articles.html). They include "Controlling Bacterial Diseases on Ornamentals", Pythium Root Rot on Poinsettias", "Costs of Using Certain Ornamental Fungicides", "Control of Botrytis Blight on Ornamentals", and more.

### "Ka Lono Pua" Goes Electronic

If you would like to receive "Ka Lono Pua" by e-mail, contact us so we can add your address to our listings. If you don't have e-mail or we don't know what it is, you will continue to receive a regular copy of "Ka Lono Pua."

If you have any questions or suggestions, give me a call at 622-4185, Tuesdays and Thursdays or e-mail me at [mersino@hawaii.edu](mailto:mersino@hawaii.edu).

Mahalo!

Edwin F. Mersino  
County Extension Agent  
Agriculture Program

- What do loonies have to do with peat prices?
- How will the new RFID technology affect you?
- Where can you go to learn about the SARE program?
- How do you control nematodes on ornamentals?
- Where can you go to learn more about growing native plants for lei?

The answer to these and many other questions can be found inside.