



Ka Lono Pua

"The Flower News"

Vol. XII No. 2 June 2005

Cooperative Extension Service, Oahu County

Legislative Actions

The state legislature passed a number of bills this year relating to agriculture. One that may have long-term significance was HB 1640. It relates to establishing a policy for identifying Important Agricultural Lands (IAL). It also requires the HDOA to conduct a study of incentives for those who have their land designated as such and to report back to the 2007 legislature.

HB168 appropriates \$500,000 for agricultural research and market development. The Hawaii Farm Bureau was selected to formulate the agricultural needs, to oversee and to expend the funds.

Two bills (HB 1201 and 1202) relating to theft and trespassing on agricultural property were passed. Other bills passed relate to agriculture markets and infrastructure, invasive species, and land conservation.

To learn more about some of the bills enacted, you can check out the legislature's web site at: <http://www.capitol.hawaii.gov/>. The site will allow you to search for the bills that relate to agriculture or other areas of interest.

In This Issue...

- ◆ Organic Flowers Increasing
- ◆ Q-Biotype Whitefly Spreading
- ◆ New Publications from CTAHR
- ◆ New IRS Deductions.....and more

Future Happenings

- Jun 10 King Kamehameha Day
- Jun 13 Biology of Nettle Caterpillars Seminar, Dr. Marc Epstein, 10:00-11:00 am. See page 6 for details.
- Jun 19 Fathers' Day
- Jun 22-25 Southeast Greenhouse Conference, Greenville, SC www.sgcts.org.
- Jun 23-25 The Super Floral Show, Houston, TX www.superfloralshow.com
- Jul 4 Mon Independence Day
- Jul 9-13 OFA Short Course, Columbus, OH
Phone (614) 487-1117 Fax (614) 487-1216 www.ofa.org
- Jul 22-24 2005 FTD Floral Extravaganza, Gaylord Texas Resort & Convention Center, Dallas, TX www.ftdi.com
- Jul 29 -31 Hawaii State Farm Fair, Kapolei, Phone (808) 848-2074
- Aug 4-7 Hawaii State Farm Fair, Kapolei, Phone (808) 848-2074
- Aug 11-13 SNA, The World's Showcase of Horticulture, World Congress Center, Atlanta, GA.; (770) 953-3311; www.sna.org
- Aug 19-21 Made in Hawaii Festival, Neal S. Blaisdell Center, Honolulu, HI

New Publications From CTAHR

Below are listed the publications from CTAHR'S Office of Communication Services that have been recently released. They are listed by their subject category and are now available for downloading from the CTAHR free publications Web page at: <http://www.ctahr.hawaii.edu/freepubs>. If you don't have internet access, give the Cooperative Extension Service a call at 622-4185 for copies.

New Plants for Hawaii

Anthurium Cultivar Releases

'Pumehana' and 'Andraecola-1' anthuriums, Heidi Kuehnle, Tessie Amore, H. Kamemoto, John Kunisaki, Joanne Lichty, Janice Uchida NPH-A-8 2 p.
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/NPH-A-8.pdf>

'Princess Aiko' ('Imperial') and 'Regina', two novelty anthuriums, Heidi Kuehnle, Tessie Amore, H. Kamemoto, John Kunisaki, Joanne Lichty, Janice Uchida NPH-A-7 2 p.
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/NPH-A-7.pdf>

AgriBusiness

Value-added strategies: taking agricultural products to the next level, Kent Fleming AB-16 2 p., Initially published in Agriculture Hawaii, Oct.-Dec. 2004
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/AB-16.pdf>

Insect Pests

Insect control chart [for greenhouse, nursery, and turf and landscape professionals], Andrew Kawabata, Arnold Hara, Christopher Jacobsen, IP-19 2 p. Web-only; also available in tabloid (poster) format.

<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-19L.pdf>

Red imported fire ant: a seriously harmful potential invasive species, Neil Reimer, Carol Okada (HDOA) IP-3 [revises 1999 pest alert] 2 p. color
Web only, printing pending funds availability.
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/IP-3.pdf>

Ornamentals and Flowers

Plumeria in Hawaii, Rich Criley OF-31 57 p.
Web only. A new version of Research Bulletin 158 (1982, long out of print), slightly revised and re-formatted for the Web; includes the more recent (1998) brief overview on plumeria, OF-24.
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/OF-31.pdf>

Soil and Crop Management

Visual symptoms of plant nutrient deficiencies in nursery and landscape plants, Use of soil amendments in landscape plantings, and Salinity effects in nursery and landscape plants, Mel Wong SCM-10, 4 p.; SCM-11, 2 p.; SCM-12, 3 p. SCM-10 and 12, Web only; printed copies available upon order.
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/SCM-10.pdf>
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/SCM-11.pdf>
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/SCM-12.pdf>

Calibrating Your Sprayer Arakaki, A. and Nagamine, C. PRRE-6, 11 p.
<http://www.ctahr.hawaii.edu/oc/freepubs/pdf/PRRE-6.pdf>

A New IRS Deduction

The March 7th edition of the Society of American Florist's (SAF) "Washington Week in Review" reported that according to the Internal Revenue Service (IRS), "A new deduction will give floral industry growers and manufacturers significantly increasing tax breaks over the next four years."

Last year, Congress passed the "American Jobs Creation Act". The part of this bill called the "manufacturing deduction" is available to most growers and manufacturers in the floral industry.

Beginning in 2005, 3 percent of the lesser of "Qualified Production Activities Income" (QPAI) or taxable income, for the taxable year will be deductible. In 2007 the deduction will rise to 6 percent and in 2010 the deduction will reach its maximum at 9 percent.

QPAI is defined as "the manufacture, production, growth or extrication in whole or significant part" of tangible personal property, including agricultural production. QPAI is calculated by subtracting associated Costs of Goods Sold (COGS) from Domestic Production Gross Receipts. Manufacture of other real property, software, production of electricity, natural gas or water, patents, and construction and engineering services are also included. A separate tax form will not be required for 2005; the deduction will be taken as a line item on the regular tax form.

One restriction is that the deduction cannot exceed 50% of wages paid by the taxpayer that year. The deduction is also available to individuals via their adjusted gross income.

Contact your tax advisors for advice on how this could impact your 2005 taxes. You can also visit www.treasury.gov and search for QPAI to find more information. Keep in mind the publication that explains the QPAI does not mention flower production explicitly.

- SAF March 7, 2005

Mustard May Be Possible Biofumigant

A biofumigant is a natural substance plants release while decomposing that makes surrounding soils toxic to some weeds, nematodes, and fungi. USDA's Agricultural Research Service scientists are studying the effectiveness of various mustard (Brassicas) species as possible biofumigants to control these pests. Scientists attribute the activity of these plants to the chemicals they produce known as isothiocyanates.

In some experiments that were started in 2000, the mustard crops are used as "green manure"—meaning they are disked into soil to improve tilth, organic matter, aeration, and water filtration.

In greenhouse studies on potted irises, fumigants made from crushed seed meal from brown mustard and pennycress were evaluated. The targeted pests were chickweed, prickly lettuce, and root-knot nematode.

As a chemical control, other pots were sprayed with the nematicide ethoprop. Nematodes were extracted and counted at the experiment's end. In pennycress-treated pots, about 80 percent fewer chickweed seeds and 55 percent fewer prickly lettuce seeds sprouted. Brown mustard seed meal reduced chickweed emergence by 65 percent and prickly lettuce by half. The irises were unaffected.

Early results revealed a 70 percent to 80 percent nematode decline in pots containing the seed meals. The scientists are now testing higher seed-meal concentrations and expect to see even fewer nematodes.

Eventually, the resulting information could lead to new cropping systems that use mustards better, or pinpoint their limitations. For more information about the experiments see:

<http://www.ars.usda.gov/is/pr/2004/041012.htm>.

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"A stumble may prevent a fall."

- English Proverb

## Organic Flowers Make the News

On May 4 the USA Today had an article on the increasing use of organic flowers by American consumers. According to the Organic Trade Association, U.S. sales of organic flowers were \$8 million in 2003 an estimated 52% increase from the previous year. Projected sales are to increase annually by 13% through 2008.

The USA Today article criticized Colombia and Ecuadorian flower growers for their use of pesticides and the effects the poisons were having on their workers. Imported flowers account for 70% of the flowers sold in the U.S.

According to Jeff Stephens of Scientific Certification Systems, a company that certifies organic flower growers, there are fewer than 100 organic flower growers worldwide. However a search for organic flowers at Local Harvest, an internet site for organic products found 91 organic flower growers in California alone and 11 in Hawaii. See: <http://www.localharvest.org/organic-flowers.jsp>.

Many popular flowers would be difficult to grow organically. Gerald Prolman of Organic Bouquet Inc. singled out roses and orchids as two such flowers. Organic Bouquet was formed in 2001 with the goal of establishing the national market for organic flowers. They encourage growers to initiate organic production while creating trade and consumer awareness for the need of organic flowers. "Our ultimate goal is to help protect the environment and improve farm worker safety by eliminating millions of pounds of toxic pesticides from agricultural usage."

Organic Bouquet has become one of the market leaders in organic flowers. They sell their organic flowers online and in natural food stores nationwide. See: <http://www.organicbouquet.com/>.

## Coqui Frog Video Available

Coqui frogs have been gaining more attention in Hawaii since they invaded the islands around 1988. "Eleutherodactylus coqui" is native to Puerto Rico where it doesn't seem to be much of a problem. But, here in Hawaii it has quickly adapted to our environment and reached unprecedented numbers. The absence of predators and the abundance of insects have allowed the coqui population to skyrocket. That and its noisy mating behavior have made the coqui frog the target of government and community eradication and control efforts. For general information on the Coqui frog invasion check out CTAHR's web site at: <http://www.ctahr.hawaii.edu/coqui/>.

If you haven't seen or had a chance to borrow the coqui frog educational video, it is now available for viewing on our coqui frog website at: <http://www.ctahr.hawaii.edu/coqui/gallery.asp> If you don't have internet access, give us a call at 622-4185 to make arrangements for viewing the video.

After viewing it, we would appreciate an evaluation. The evaluation forms are available at <http://www.ctahr.hawaii.edu/haraa/coqui.asp>

Hydrated lime was approved by the EPA for use in controlling the coqui frogs. Commercial growers can use it either as a dust, drench or foliar spray. Non-ag applicators must either use a drench or a liquid foliar spray; they cannot use a dry dust.

HDOA's Pesticide Branch received a complaint from a resident that experienced hydrated lime drifts from dust being applied by a neighbor. If complaints continue, the Quarantine Exemption for use of hydrated lime for coqui frog control can be rescinded. This is a health and safety issue. Be sure to read and follow the label on all pesticides.

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There is a time in the life of every problem when it is big enough to see, yet small enough to solve.

- Mike Leavitt

Whitefly Q-biotype Spreading Across the US

Just when we thought that whiteflies were not as serious a problem as they used to be, a new biotype emerges. Drs. Timothy J. Dennehy and Judy Brown, University of Arizona extension specialists, recently identified a new strain of *Bemisia tabaci* in Arizona. The Q-biotype of the sweet potato whitefly was confirmed on poinsettia in Arizona in March by two university labs.

Like the old B-biotype (aka the silverleaf whitefly), the Q-biotype feeds on ornamentals, vegetables and cotton. If you remember back when the B-biotype emerged, you will remember the problems growers had controlling it due to its resistance to many of the insecticides available at that time. When the neonicotinoids like Marathon, TriStar, Flagship and more recently Safari and Celero, came on the market, they successfully controlled the B-biotype pest.

The new Q-biotype has exhibited resistance to some of those same neonicotinoids as well as many insect growth regulators like Distance and Talus.

In response to the finding in Arizona, their Department of Agriculture issued an order quarantining the entire state of California for *Bemisia tabaci* Q-biotype (sweet potato whitefly Q strain). The whiteflies found were on poinsettias shipped in December 2004 from California. The plants were traced back to San Diego County and from sources in Guatemala.

The quarantine prohibits shipping all plant parts, except underground parts and seed, from any California facility known to be infested with Q-biotype. Facilities not known to be infested can continue to ship plants and plant parts without any form of certification.

Because the biotypes are morphologically identical, the only way to detect the difference is DNA and/or serological analysis. The detection of the Q-biotype in Arizona is the 1st reported incident in the U.S.

The Q-biotype has also been found in China, Egypt, France, Israel, Japan, Morocco, The Netherlands and Spain. Surveys are now being conducted in states (AZ, CA, FL, GA and TX) where Q-biotype is likely to occur.

Some steps growers can take to control the problem include:

- Check all incoming plants and cuttings for infestations. Remember whitefly eggs and nymphs are very small and use of a hand lens is required.
- Use yellow sticky cards to monitor whitefly populations.
- Rotate insecticides with different modes of action.
- Record your observations and the measures you take to control pests. Notice if the whiteflies seem to be resistant to the neonicotinoids or insect growth regulators.
- Conserve your natural enemies.
- Contact your county extension agent.

For more information on the Q-biotype whitefly see: <http://floriculture.osu.edu/WhiteFlyQ.html>.

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The judge was trying to change the mind of a woman filing for divorce. "You're 92," he said. "Your husband's 94. You've been married for 73 years. Why give up now?"

"Our marriage has been on the rocks for quite a while," the woman explained, "but we decided to wait until the children died."

-Quoted by Joyce Brothers

## More Invasive Pests Moving to Hawaii

There have been four new invasive insect pests documented in Hawaii in the last two months. One of the latest invaders reported on April 19, 2005 is the Erythrina Gall Wasp, *Quadrastichus erythrinae*.

As its name implies, it attacks the Erythrina also known as Wiliwili or the Indian Coral Trees. The tall form of Wiliwili is often used as windbreaks around farms and nurseries. As of last month, it was only found on Oahu from Honolulu to Pearl City. Let the Hawaii Department of Agriculture know if you find it elsewhere.

This pest was only described as a new species last year from Singapore, Mauritius and Reunion. It is now found in Taiwan. The insect lays its eggs on the young leaves. The larvae develops in the leaf tissue and the trees respond to its feeding by producing galls. After pupation the wasp exits leaving a small hole in the gall. Heavily infested trees stops growing, loses vigor and may die. Presently control measures are being investigated.

For more information on this pest you can see: <http://www.hawaiiag.org/hdoa/npa.htm>. Also at that site you can read about the Pickleworm that attacks cucurbits like cucumber and zucchini, and the Macadamia Felted Coccid.

The very latest invader is suspected to be the Hibiscus psyllid. It was found attacking hau, *Hibiscus tiliaceus* on May 20, 2005 only in Makiki in Honolulu. Samples were sent out for identification confirmation.

The Hibiscus psyllid, *Meoshomotoma hibisci*, is distributed in Australia, Singapore and Micronesia. The nymphs resemble mealybugs and produce long fluffy white waxy filaments. They haven't produced much damage yet. Let's hope it stays that way.

## Nettle Caterpillar Seminar

"A Macrovideo On The Biology and Systematics of the Slug and Nettle Caterpillars (*Limacodidae*)" will be presented by Dr. Marc Epstein, Associate Insect Biosystematist California Dept. of Food & Agriculture, Plant Pest Diagnostics Branch.

Monday, June 13, 2005 10:00-11:00 am  
Hawaii Dept. of Agric. Conference Room  
1428 South King St.  
(Metered street parking is available on King and Young Streets.)

Dr. Epstein is originally from Colorado and received degrees from Colorado State University and the University of Minnesota. His doctorate was on New World *Limacodidae*, with post-doc work at the Smithsonian, where he continued as a staff researcher for 12 years. Two years ago, Dr. Epstein joined the CDFA in Sacramento as a Lepidoptera systemist. His other interests include combining entomology with the arts - in the form of filmmaking and scientific illustration, and playing jazz and ethnic music.

While at the Smithsonian, Dr. Epstein was contacted by the Hawai'i Department of Agriculture when *Darna pallivitta* was first found in Hawai'i and he was able to make its positive identification. His visit is funded by a USDA CSREES T-STAR grant, "Management of the Invasive Stinging Nettle Caterpillar in Hawai'i" (Arnold Hara, Walter Nagamine, Co-PIs). For more information contact: Walter Nagamine, HDOA, 973-9526.

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"Darn!" the man said to his pal while weighing himself in a drugstore. "I began this diet yesterday, but the scale says I'm *heavier*. Here, Norm, hold my jacket...It *still* says I'm heavier. Here, hold my Twinkies."

-Kevin Fagan

Small Business Innovative Research Program

The USDA's Cooperative State Research Education and Extension Service (CSREES) has released a notice for proposals for its 2006 Small Business Innovative Research (SBIR) Program. This program awards grants for research to small business firms in a number of areas such as: plant production and protection; air, water and soils; industrial applications; marketing and trade; and small and mid-size farms.

Objectives of the SBIR program includes stimulating technological innovation in the private sector, strengthening the role of small business in meeting Federal research and development needs, and increasing private sector commercialization of innovations derived from USDA supported research.

The Phase I applications are due September 1, 2005. This phase is to determine the scientific or technical feasibility of ideas for research. Each award can range up to \$80,000 for a period normally not to exceed 8 months. Longer periods up to 20 months may be considered.

Phase II programs are due -- February 2, 2006. These awards will be made to firms with approaches that appear sufficiently promising as a result of Phase I studies. Each award ranges up to \$300,000 for a period normally not to exceed 24 months.

For more information on the program, see: http://www.csrees.usda.gov/funding/rfas/pdfs/06_sbir.pdf

The State of Hawaii has a strong history of obtaining SBIR grants. SBIR awards have gone to 229 Hawaii firms and valued at nearly \$50 million. Hawaii companies have won the highest per capita number of USDA SBIR awards in the country. The State High Technology Development Corporation (HTDC) operates an office that assists individuals in preparing applications and has supported matching fund requirements.

The Hawaii Small Business Innovation Research Grant Program, a part of the HTDC, was established in 1989 to provide grants to Federal Phase I SBIR awardees (up to 50%) of Phase I Award - maximum \$25,000, for research that is performed in the State of Hawaii.

Proposals are primarily evaluated based on their scientific and technical merit and on the basis of their originality. Federal scientists, engineers and other subject matter experts in the particular topic area provide the review. The agency considers the qualifications of the principal investigator and key staff, the technical merit of the proposal, potential commercial applications, and the benefit to the particular agency. SBIR monies are not awarded to mere improvements and applied technology.

For more information see: <http://www.htdc.org/sbir/>

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.

Mahalo!

Edwin F. Mersino
County Extension Agent
Agriculture Program

- What are the latest insect invaders eating?
- Where can you learn about controlling the Coqui frog?
- How can you save on next years taxes?
- Where can you go to get some research funds?
- What type of flowers are increasing in sales?

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