



Ka Lono Pua

"The Flower News"

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Oahu County

Cooperative Extension Service

BOR APPROVES PHASE II CTAHR REORGANIZATION

Phase II of the College of Tropical Agriculture and Human Resources' (CTAHR) reorganization was approved by the Board of Regents at its meeting January 21st. With very little discussion and without dissension, BOR members voted in favor of the most sweeping changes in CTAHR's nearly 100-year history. Most of the discussions were held at BOR meetings conducted last summer.

The reorganization of CTAHR's eleven departments into six and the integration of Cooperative Extension Service agents into department faculty are now official and can proceed quickly and with the full blessing of the University administration and the Board of Regents.

The college has weathered a huge storm. Its resources have been cut in excess of \$3 million in the last four years. At the same time it increased its productivity. For more on this change see the article on page 2.

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- ◆ CTAHR's Free Ornamental Newsletter
- ◆ Orchid Media Redefined by California
- ◆ CTAHR Reorganizes ...and more

Future Happenings

- Feb 12 Lei Making Workshop, Ho'omaluhia Bot. Garden, Kaneohe
- Feb 14 Valentine's Day
- Feb 15-16 Landscape & Ornamental Short Course, Honolulu Country Club (See newsletter for details)
- Feb 16-17 21st Annual Landscape Industry Show, Long Beach CA
- Feb 21 Presidents' Day
- Mar 16-19 15th San Francisco Flower & Garden Show, San Francisco CA
- Mar 17 St. Patrick's Day
- Mar 17-18 American Rhododendron Society, Hawaii Chapter Workshop, Hilo
- Mar 17-19 Kunia Orchid Show, Kunia Gym
- Mar 23 2nd Annual Las Vegas Nevada Landscape Assoc. Trade Show & Conference, Henderson NV
- Mar 27 Kuhio Day
- Mar 31 – Apr 2 Windward Orchid Show, King Armory, Kaneohe
- Apr 21 Good Friday Holiday
- Apr 24 Easter Sunday
- Apr 26 Professional Secretaries Day

BOR APPROVES PHASE II CTAHR REORGANIZATION

The changes that the Board of Regents approved for the College of Tropical Agriculture and Human Resources (CTAHR) began as a series of town meetings in the communities with farmers, other CES clients, students, and faculty over two years ago. It has taken a long time to get the changes approved. Some of the changes to be implemented in Phase II are as follows:

Existing departments are abolished.

Six new departments are created:

1. Family and Consumer Sciences (FCS) incorporates the Department of Human Resources with the 4-H, EFNEP, FCL and Center on the Family Programs.
2. Human Nutrition, Food, and Animal Sciences (HNFAS) combines the Departments of Animal Sciences with Food Science and Human Nutrition.
3. Molecular Biosciences and Biosystems Engineering (MBBE) melds Biosystems Engineering (Ag engineering) with Environmental Biochemistry and Plant Molecular Physiology.
4. Natural Resources and Environmental Management (NREM) has faculty members from Agronomy and Soil Science, Agricultural Resources and Economics and Plant Molecular Physiology.
5. Plant and Environmental Protection Sciences (PEPS) integrates Entomology, Plant Pathology and some faculty members from Horticulture and Environmental Biochemistry.
6. Tropical Plant and Soil Science (TPSS) joins Horticulture with Agronomy and Soil Science with some faculty members from Ag Economics and Plant Molecular Physiology.

All BOR appointees (faculty and APT) located apart from the Manoa campus will affiliate with one of the six new departments. This means that all the county agents that were in county administrative units were to choose to be in one of the six new units. Most agriculture agents chose to be in either PEPS or TPSS. For now the county administrative units are still intact but their character may change in Phase III of the reorganization.

Acting Dean Michael Harrington commenting on the approval said “It is now time to move forward into a new mode of operation and aspire to a new level of productivity. We must revitalize our curricular offerings, continue to seek extramural support for our activities, and continue to provide the level of assistance and service that our stakeholders have come to expect.”

If you are wondering what was Phase I, it was a reorganization of the “upper” administrative levels. The Hawaii Institute of Tropical Agriculture and Human Resources (HITAHR) which was responsible for extension and research was abolished. The responsibilities of the Director and three Assistant Directors were merged and give to two new Associate Deans.

You might ask “Why was this reorganization done?” Over the last ten years CTAHR has been continually losing faculty and staff. Most of the positions have remained vacant or lost altogether. The viability of some departments was questioned. The reorganization reduced the number of administrators by seven, along with their support staff (secretaries, clerks and student help). The result is a leaner and more streamlined college.

The reorganization of the departments combines talents of faculty that were otherwise separated. Collaborations between faculty will take the college in new directions that will hopefully continue to support and lead agriculture in Hawaii.

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# New Insecticides to Fight Old Pests Introduced

by Arnold H. Hara

Conventional insecticides and miticides are under close scrutiny by the Environmental Protection Agency's (EPA) Food Quality and Protection Act. In the future, many conventional pesticides will be replaced by newer biorational or "low risk" insecticides and biological insecticides.

Biorational or "reduced risk" insecticides are synthetic or natural products that effectively control insect pests with low toxicity to non-target organisms (humans, animals and beneficial organisms), and are non-polluting to the environment. These new insecticides developed by chemical manufacturers will be of a new chemistry and not insecticides belonging to the carbamate, organophosphate or pyrethroid chemical class.

Some of these biorational insecticides will be effective only during certain specific life stages (e.g. immature stage) of the target insect. Applicators must follow specific instructions for effective use of biorational insecticides and follow resistance management strategies as recommended on the label.

## New Products

Azadirachtin (AZATIN) is a limonoid insect growth regulator derived from the neem tree. For optimal effectiveness, Azadirachtin (Aza) must be applied when eggs begin to hatch or at early immature stages. Aza does not kill insect eggs or adults. Spraying directly on at immature stages and a longer duration of leaf wetting will increase effectiveness. Applying in the early morning or late afternoon will also optimize results. Apply two to three times in succession at a seven-day interval. Under high insect spray pressure, apply every three to five days.

Aza is recommended for control of whiteflies, thrips, mealybugs, leafminers, caterpillars and aphids. Aza typically requires three to 15 days (or longer) for insect death. Aza also shows antifeedant and repellent properties, which has been

demonstrated with the Chinese rose beetle by researchers at the University of Hawaii at Hilo, College of Agriculture, Forestry & Natural Resource Management.

Bifenazate or FLORAMITE (Uniroyal Chemical) is a selective miticide that provides control of various plant-feeding mites on greenhouse, shadehouse, nursery, landscape and interior grown ornamentals. Floramite belongs to a new class of miticides, carbazate, that acts as an antagonist to the nervous system.

As a result of its safe profile to predacious mites, beneficial insects, animals and the environment, Floramite was fast-tracked for registration as a reduced risk pesticide by EPA. Tests conducted by the University of Hawaii, College of Tropical Agriculture and Human Resources (CTAHR) demonstrated that Floramite is effective against the citrus red mite on anthuriums for up to 21 days, confirming residual control.

## Synthetic Cinnamon

Cinnamaldehyde or CINNAMITE (Mycotech Corporation) is synthetic cinnamon oil that controls or repels a variety of pests including mites and powdery mildew aphids. Crops listed on the label range from herbs and spices to shade trees.

Recent tests conducted by CTAHR indicate that the citrus red mite population on anthurium was significantly reduced seven days after one application of Cinnamite; citrus red mite populations returned to higher levels at 14 days after one application. Preventing the Cinnamite spray from drying too fast will increase effectiveness. Therefore, spray in the late afternoon or evening.

Although the label does not recommend use on orchids, CTAHR's phytotoxicity tests at 2X the label use rate indicate that Cinnamite may be safe to use on dendrobium and cymbidium orchids. For

resistance management, Cinnamite should not be used for more than two consecutive applications.

Pyriproxyfen or DISTANCE is a new insect growth regulator (IGR) from Valent that is effective against armored scales, whiteflies, fungus gnats and shore flies. Research data supporting control of armored scales and whiteflies make Distance look very promising. CTAHR is presently testing Distance against the avocado scale on protea. Distance is an IGR that suppresses egg development and inhibits metamorphosis and adult emergence. Distance is not as effective against mealybugs and aphids.

Distance exhibits movement into leaves (translaminar). Combining Distance with a lightweight oil may have an additive effect. Distance will be also formulated as a fire ant bait insecticide (similar to Amdro) that will be effective against the bigheaded ant and other pestiferous ant species in Hawaii.

For more information, call 974-4105, fax 974-4110 or e-mail [arnold@hawaii.edu](mailto:arnold@hawaii.edu)

Dr. Arnold H. Hara is an entomologist with the University of Hawaii, College of Tropical Agriculture and Human Resources

- Hawaii Landscape, January/February 2000

*Mention of a trademark, company, or proprietary name does not constitute an endorsement, guarantee, or warranty by the University of Hawaii Cooperative Extension Service or its employees and does not imply recommendation to the exclusion of other suitable products or companies.*

*Caution: Pesticide use is governed by state and federal regulations. Read the pesticide label to be sure that the intended use is included on it, and follow label directions.*

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Overheard: "I really don't understand my wife sometimes. She insisted on buying a new bathing suit before we went on vacation just because her old one had a hole in the knee."

-Andy Betz

Pink Hibiscus Mealybug Discovered in U.S.

The Pink Hibiscus Mealybug (PHMB) *Maconellicoccus hirsutus* (Green) has become a major pest in the Caribbean region over the last several years. It has over 200 hosts including a number of vegetable, fruit and ornamental varieties. The PHMB can infest Heliconia, Anthurium, Ixora, Bougainvillea, Oleander, Schefflera, and, of course, Hibiscus. Recently it was discovered in southern California around Calexico and El Centro in an area of about 121 square miles. Fortunately these are urban areas, and no agricultural areas have been found to be infested.

The PHMB like other mealybugs sucks the sap from its hosts. It also injects toxic saliva as it feeds. The infested plants are stunted, and develop malformed leaves and fruit. Unopened flowers will shrivel and die. Ants, honeydew and black sooty mold are often associated with PHMB. A white cottony mass can be seen at the end of the plant's branches and severe infestation can kill the plant. If you have internet access you can see pictures of the mealybugs at: <http://gnv.ifas.ufl.edu/~entweb/pink.htm> or <http://gnv.ifas.ufl.edu/~insect/ORN/mealybug/mealbug.htm>. If you don't have internet access you can use the public libraries' computers to access these sites.

U.S.D.A. has developed a strategy that utilizes biological control agents to control the PHMB. The U.S.D.A. in conjunction with the California Department of Food and Agriculture released three parasitic insects in the infested area last fall.

If this pest gets to Hawaii, we would have to use chemical controls before the biological control agents could be tested and allowed import to the islands. The U.S.D.A.'s Animal and Plant Health Inspection Service (APHIS) or HDOA should be contacted if you suspect these insects are present on your plants.

CTAHR Ornamental Newsletter Subscription

The College of Tropical Agriculture and Human Resources (CTAHR) publishes the "Landscape, Floriculture, and Ornamentals News" on a quarterly basis. It is free to commercial growers in Hawaii and is full of useful and interesting information.

As you can see by the title, not every article will be relevant to every green industry situation. But every issue will have something you could use. Here are some of the topics in the January, 2000 issue:

- Landscape and Ornamentals Workshop
- Irrigation Short Course Offered in March
- Computer Use in the Green Industry
- Web Access to Information from CTAHR
- Detection, Transmission and Management of Orchid Viruses in Hawaii
- Greenhouse Conditioning Affect Landscape Performance of Bedding Plants
- Seven New Hybrid Pincushion Protea
- Weed Control Options in Landscape Beds

To receive your copy of the "Landscape, Floriculture, and Ornamental News" contact Jay Deputy at Tropical Plant and Soil Science (TPSS), 3190 Maile Way, St. John Room 102, Honolulu, HI 96822-2279, or e-mail deputy@hawaii.edu or call 956-2161.

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Sven, who is quite elderly, is resting peacefully on the front porch of a nursing home in the country, when he sees a cloud of dust up the road. He watches a farmer approaching, with a wagon. "Howdy!" hollers out Sven. "Afternoon," says Ole.

"What do you have in the wagon?" Sven continued.

"Manure" said Ole.

"Manure, eh? What do you do with it?"

"I spread it over my strawberries," Ole says matter-of-factly.

"Well," says Sven, "you should come over here for lunch someday. We use whipped cream."

## Orchid Media Redefined by California

Those growers that are shipping orchid plants to California may have heard that the California Department of Food and Agriculture (CDFA) has changed its view of epiphytic orchid growing media. They have ruled that orchids are not growing in "epiphytic" growing media if their roots are covered or surrounded by any media that is capable of providing a suitable environment for plant parasitic nematodes. Orchids growing on an object, such as a piece of bark or lava rock, and having exposed roots are growing on "epiphytic" growing media.

Orchids growing on epiphytic growing media are exempt from California's quarantine for burrowing and reniform nematodes. Orchid growers using non-"epiphytic" media must therefore comply with the "Master Permit for the Shipment of Nursery Stock from Hawaii to California".

What this will mean varies from grower to grower. Those that are using sterile media, keeping it clean, and ensuring that the plants, benches, pots, etc. are free of nematodes will have almost nothing additional to do. Growers that are not as fastidious, and use media that may be infested with nematodes, or allow clean media to become infested, or don't keep plants, benches, pots, etc. free of contamination, will have to change their practices.

Growers that use volcanic cinder may have a more difficult time, because of the various sources of the cinders and how they are handled before they are used. Sterilizing media that is contaminated or has been allowed to become contaminated will be necessary.

In the coming months you will hear more about this issue. If you have questions about media or the Master Permit requirements give Ed a call at 622-4185.

# LANDSCAPE & ORNAMENTALS SHORT COURSE PROGRAM

Tuesday, February 15, 2000

Wednesday, February 16, 2000

| <b>Time</b>  | <b>Speaker</b>                                       | <b>Topic</b>                                                                              | <b>Time</b>  | <b>Speaker</b>                                | <b>Topic</b>                                                           |
|--------------|------------------------------------------------------|-------------------------------------------------------------------------------------------|--------------|-----------------------------------------------|------------------------------------------------------------------------|
| 7:30         | Registration                                         |                                                                                           | 7:30         | Registration                                  |                                                                        |
| 8:00         | Dr. Jerry Quisenberry<br>USDA                        | Welcome &<br>Overview of<br>New USDA<br>Facility in Hilo                                  | 8:00         | Dr. Arnold Hara<br>CTAHR                      | Low Risk Pesticides<br>for Alien Pest<br>Control                       |
| 9:00         | Dr. Neil Reimer<br>Hawaii DOA                        | Plant Pest<br>Quarantine Issues                                                           | 9:00         | Dr. Janice Uchida<br>CTAHR                    | Biology & Control<br>of Powdery Mildew<br>Diseases                     |
| <b>BREAK</b> |                                                      |                                                                                           | <b>BREAK</b> |                                               |                                                                        |
| 10:15        | Dr. Peter Bretting<br>USDA/ARS                       | Nat'l Program in<br>Floral &<br>Nursery Crops                                             | 10:15        | Dr. Jim Knauss<br>Scotts Company              | Diagnosing Plant<br>Diseases                                           |
| 11:00        | Dr. Robert Hollingsworth<br>USDA                     | Is Biological<br>Control for Insect<br>and Mite Pests<br>Feasible on<br>Ornamental Crops? | 11:00        | Mr. Garrett Webb<br>CLT Program               | Bringing the<br>Certified Landscape<br>Technician Program<br>to Hawaii |
| 12:00        | <b>LUNCH</b> –<br>Dr. Jim Knauss<br>Scotts Company   | Contrast® &<br>Ovation®                                                                   | 12:00        | <b>LUNCH</b>                                  |                                                                        |
| 1:30         | Ray Cain<br>Belt Collins                             | Golf Course<br>Landscaping with<br>Maintenance in<br>Mind                                 | 1:30         | Dr. Jim Knauss<br>Scotts Company              | Plant Nutritional<br>Diagnosis                                         |
| 2:30         | Dr. Bill McElhannon<br>Agrivet Technical<br>Services | Plant Nutrition in<br>Containers & in the<br>Landscape                                    | 2:30         | Mr. Karl Drescher<br>Chem Search/Opti-<br>Gro | Fertigation for<br>Nursery &<br>Landscape<br>Applications              |
| 4:00         | General Discussion                                   |                                                                                           | 4:00         | General Discussion                            |                                                                        |

# REGISTRATION FORM

The University of Hawaii, College of Tropical Agriculture and Human Resources in conjunction with the Hawaii Association of Nurserymen (HAN) is sponsoring a two-day Landscape and Ornamentals Short Course program to be held at the Honolulu Country Club, 1690 Ala Puumalu Street, on February 15 and 16, 2000. The cost per person (including lunch) for the two days is \$75 for HAN members and \$100 for non-members.

Because of space limitations, registration will be on a first come, first served basis. To register, complete the registration form below and mail it with your payment. Please make your check payable to *Hawaii Association of Nurserymen* and mail it to: **Hawaii Association of Nurserymen, P. O. Box 293, Honolulu, HI 96809**. Please note on the envelope – **ATTN: Landscape & Ornamentals Short Course**.

(If you have any special requirements or questions, please contact Madeleine Shaw at 951-0055.)

## Monster Bug Attacks “Ka Lono Pua” Electronic Files

Before the Y2K bug had a chance to attack, the hard drive that contained the “Ka Lono Pua” e-mail addresses crashed. All of the e-mail addresses were lost. Therefore, this issue of “Ka Lono Pua” is being mailed to everyone whose e-mail address we were unable to locate.

If you would prefer to receive an electronic version of Ka Lono Pua instead of (or in addition to) a hard copy please send Ed an e-mail message at [mersino@hawaii.edu](mailto:mersino@hawaii.edu).

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.”  
Mahalo!

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).

Edwin F. Mersino  
County Extension Agent  
Agriculture Program

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Please print or type

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|----------------------|---------------|-----------|----------|
| First Name           | Middle Name   | Last Name |          |
| Company/Organization |               | Title     |          |
| Mailing Address      | City          | State     | Zip Code |
| Day Phone            | Evening Phone | FAX       |          |

- What eco-friendly steps can you take to control pests?
- How do you receive a free copy of the CTAHR ornamental newsletter?
- What has happened to the College of Tropical Agriculture and Human Resources?
- Where can you learn more about plant nutrition and pest control?
- What's epiphytic orchid media?

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