

CTAHR RESEARCH NEWS

March 2009
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Janice Uchida stands with colleague Chris Kadooka in the anthurium greenhouse.

**Protecting
Hawaii's
ecosystem**

**New faces
at CTAHR**

**UHM's
Institutional
Research Board**

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From the Associate Dean and Associate Director for Research

Spring is here! After a long cold and wet winter, warmer weather finally returns to the islands. I am not so sure I can say the same thing for our ailing economy. On the bright side, after 162 days since the federal fiscal year began, the USDA finally got its budget for FY 2009 on March 11. The availability of federal funds is even more important to our programs with the state budget in decline. The University is going through a campus-wide prioritization process during which individual departments submitted their results to the Office of the Vice Chancellor for Academic Affairs (VCAA) in late February. The College submitted our level two assessment earlier this month and most of our programs are listed under the “maintain” category. However, Dean Hashimoto recently received a request from the VCAA office to further prioritize our academic programs into high, middle and low maintain categories. We were asked to “*Apply the following criteria in deciding which programs fit into the Lower grouping: average high cost per SSH, weak demand on enrollment, 2 or fewer faculty FTE, lecturer dependent, and whether the program is considered an appendage to the “primary” program of the department.*” Undoubtedly, this exercise will continue to demand our attention in the coming months.

Several bills in the state Senate and House have direct impacts on CTAHR. HB-1663 and SB-709 both prohibit any taro research using transgenic techniques. The official UH position opposes both bills, and proposes an amendment to allow non-Hawaiian taro research to proceed in controlled environments such as laboratories and greenhouses. HB-1226, a potentially more friendly bill, prohibits the state or any county from passing any new restrictions on research using transgenic technology except taro.

However, this means our faculty cannot conduct research on any taro and this bill also allows the Hawaii County’s ban on taro and coffee research to stand if it passes. The official UH position opposes HB-1226 because of the ban on research of all taro, not just Hawaiian taro. Both HB-1663 and HB-1226 have passed the House Agriculture Committee with the amendment to place restriction on only Hawaiian taro, which would allow our faculty to conduct research on non-Hawaiian taro in a controlled environment. All bills are going back to the Senate for further deliberation. Stay tuned!

We have several plant pathologists in CTAHR, which may give the false impression that we have depth in this particular discipline. However, besides insects, plant diseases can be transmitted by bacteria, virus, or fungi and we usually only have one-person in each of these areas. In prior issues of the *CRN* we introduced our bacteriologist, Dr. Anne Alvarez (January 2007), and Dr. John Hu, a virologist (July 2008), so in this issue we would like to introduce you to Dr. Janice Uchida, our mycologist who specializes in fungal diseases. Janice is also our florist-in-residence and has contributed her artistic talent to our annual award banquet flower arrangements, among others. We are fortunate to have Dr. Janice Uchida as our colleague. Until next month, enjoy your spring!



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Protecting our ecosystem and rare paradise

By Janice Uchida, Associate Plant Pathologist
Department of Plant and Environmental Protection Sciences



Ed Mersino (left), CTAHR Extension Agent, Justin Miranda, Waiahole Botanicals, and Dr Janice Uchida examine Ohia plants at Waiahole Botanical's Nursery.

In April of 2005, CTAHR and the Hawaii Department of Agriculture, discovered a new rust disease, *Puccinia psidii*, attacking potted ohia plants (*Metrosideros polymorpha*). This rust, originally discovered on guava in Brazil, is known as the guava rust and devastates eucalyptus plantations in Brazil. It has also caused severe disease on paper bark or *Melaleuca quinquenervia* in Florida, killing some plants and defoliating allspice or *Pimento dioica* in other countries.

My Plant Pathology program has two major objectives: (1) determine the causal agents of new diseases in Hawaii and the tropics and (2) educate students and growers about important tropical pathogens for the Pacific region. We also develop methods to control these diseases.

Puccinia psidii is extremely important to our ecosystem as it attacks ohia, a tree which comprises as much as 75% of some of our remaining native forests. Thus, this pathogen has received major research efforts in my program. To date over 20 species of plants in the myrtle family have been found as hosts of this new rust in Hawaii, including mountain apple, paper bark, myrtle, brush cherry, Java plum, wax flower, *Eugenia reinwardtiana*, and the endangered *Eugenia*

koolauensis. The most devastated plants have been rose apple, *Syzygium jambos*, which are dying on Maui, Hawaii, and Oahu. *Eugenia koolauensis* has been heavily diseased also. These rare plants, already endangered by habitat destruction and feral animals, are now more severely impacted. For all hosts, the young leaves are the most susceptible. As young leaves



Severely infected rose apple leaves.

die, no new leaves are available to maintain the growth of the plants. The survival of the few remaining *E. koolauensis* on Oahu, the only island from which it is currently known, is of very high concern.

A high priority for our program is to screen fungicides to find one that will inhibit the rust, but not harm *E. koolauensis*. This plant is very rare and potted plants for experimentation are not available. Thus fungicide efficacy tests are being conducted on rose apple, ohia, and *Eugenia paniculatum*. After an effective fungicide has been identified, a few *E. koolauensis* plants will be treated in the field to check for phytotoxicity. It is hoped that protecting the new leaves will help to save this species.

Different strains of the rust, *P. psidii* are known and each strain is able to attack different plants. In Hawaii, there has not been a major rust disease outbreak on eucalyptus, allspice, or guava. Researchers are concerned with the possible entry of new rust strains that might be even more pathogenic on ohia or may attack the nearly 20,000 acres of eucalyptus on the Big Isle. To prevent introduction of new strains Hawaii now prohibits the shipment of plants in the myrtle family from areas that are known to have the rust. However, shipments of myrtle from California were found with rust pustules by the Hawaii Department of Agriculture in 2007.

To determine whether the threat of a severe rust strain is imminent, we have begun an International Program to screen the rust in Brazil for their effects on ohia. In a preliminary molecular study conducted in 2006-7, we found that Brazil has several different strains of the rust, while we have only one strain in Hawaii. Brazil is likely to be the center of origin of this rust, thus the largest genetic differences in the rust population would occur there. Ohia seeds have been sent to Brazil, where plants will be grown and inoculated. Brazilian researchers will determine if a strain capable of devastating ohia is present. Currently hundreds of different isolates of the rust have been collected in Brazil and are awaiting plants for testing. It is crucial that we know what these new strains are capable of infecting.

Presently, we are funded by the State DLNR, Forestry and Wildlife, the Invasive Species Council and the Department of Defense Natural Resource Program. We work closely with Robert Hauff, Lloyd Loope, Anne Marie LaRosa, Michelle Mansker, Phil Cannon, the faculty from the Universities of Idaho and Florida, and researchers in New Zealand, Australia, and Brazil.

Scot Nelson, Jeri Ooka, J.B. Friday and Norman Nagata are also involved with the rust and koa wilt diseases.

Thus, this program to identify new diseases, document their occurrence and the development of control procedures have been the basis of our work for the past 28 years. We have extensive experience with orchid pathogens and we worked with Big Island Dendrobium Growers Association (BIDGA), the Hawaii Orchid Growers Association (HOGA), and many orchid societies. With the aid of my research assistant **Chris Kadooka**, many new causal organisms of orchid and foliage/landscape plant diseases have been identified. We are also developing control measures for these diseases.



Vanilla flowers require hand pollination before the seeds, or “bean,” is formed.



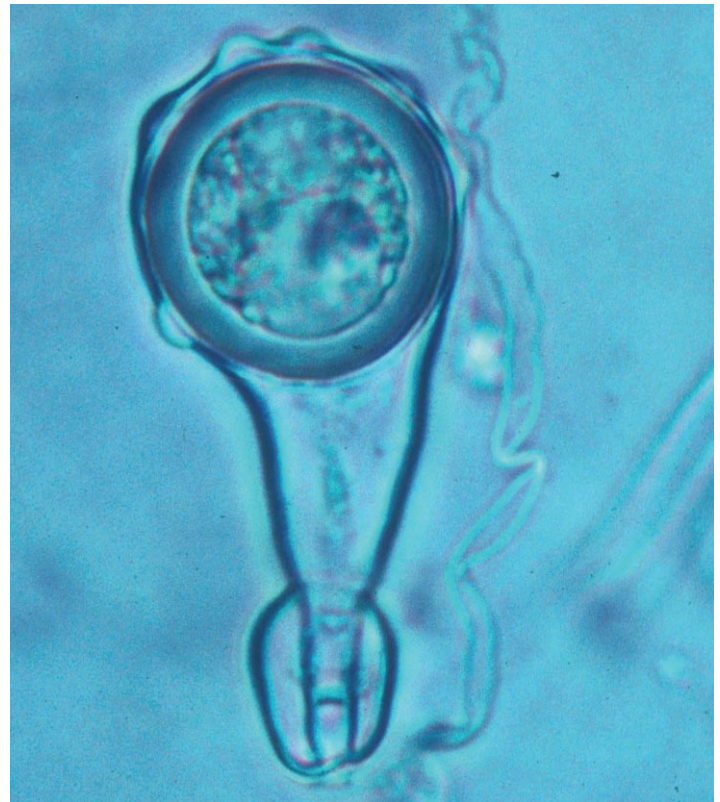
Chris Kadooka tends his vanilla plants



Sheath rot on an orchid caused by *Fusarium*.

Since 2004 we have worked on *Fusarium* diseases of field orchids and other potted orchids. In a state survey, over 8 species of *Fusarium* were discovered on orchids along with several others that need to be identified. Four of these species are pathogenic and testing of others is continuing. The diseases they caused included root rots, shoot and leaf rots, and flower blights. Over 35 different orchid genera had diseases associated with *Fusarium* species and it was the top cause of diseases at many nurseries. The cause of mysterious symptoms, such as the occurrence of yellow leaves at the tip of the plant or the death of young shoots, were found to be caused by *Fusarium* infections. The sales of floriculture and nursery products is one of the strongest sectors of the agricultural community in Hawaii, valued at \$105 million in 2007.

We have spent many years working with diseases of ornamental and landscape crops. In the U.S., the massive movement of ornamentals is believed to be the major pathway for the interstate movement of insects and diseases. In our island ecosystem, new destructive pathogenic fungi are constantly arriving on imported plants and plant products. These pathogens become established in the moist tropical environment and are extremely difficult to eradicate. The State has made tremendous efforts to restrict entry of pathogens, but many have entered the State. In addition to the rust, *P. psidii*, and the large numbers of *Fusarium* species



Photomicrograph of a sexual spore of *Phytophthora* that are found in infected coconut plants.



Photomicrograph of *Phytophthora* zoospores moving out of sporangia. Zoospores swim toward the host and penetrate the root epidermal layer.

entering the State from South East Asia, many other pathogens have entered the state from the U. S. mainland, Canada, Central America, South America, Africa, and Europe. This includes devastating pathogens such as the soybean rust, bacterial blight of anthurium, *Alternaria* on *Panax* and other aralias, *Phytophthora katsurae* on coconut, *Phytophthora palmivora* on cacao, *Phytophthora meadii* on *Leea* or Hawaiian holly, *Pseudocercospora* on Rhapsis palm, bacterial stem rot

on aroids, *Ceratocystis* on *Syngonium*, *Alternaria* on poinsettia, *Cylindrocladium* on *Spathiphyllum*, *Asperisporium* on papaya, *Pythium graminicola* on dracaena, *Cylindrocaldium* on *Heliconia*, *Fusarium subglutinans* on aroids, *Calonectria* on palms, *Athelia* on hiscus, *Cylindrocladium* on fern, *Bipolaris* on corn, *Levillula* on peppers and many other hosts, *Oidium* on tomato, onion, and numerous other hosts and many other causal organisms. Almost all of those listed above and a sizable number of other pathogens have been discovered by my lab. Each has been pure cultured and pathogenicity tests have confirmed these new pathogens as the causal agent of disease. The tropics are largely

unstudied and many pathogens need to be cultured and tested on the hosts on which they are associated.

As a mycologist, or a person trained in the taxonomy and biology of fungi, my lab has identified many new pathogens. We described *Phytophthora tropicalis*, a new species that causes severe disease on ornamental crops, macadamia, papaya, carnation, palms, cacao, eggplant, and numerous other crops in the tropics. We also discovered a new *Phytophthora* species in taro corm, causing the mysterious pocket rot symptom. As part of my commitment to educate students and growers I conducted interdepartmental research projects with **James Silva** to find the most favorable level for taro



Sean Tomas (Pearl City) holds one of his ohia plants.



Ayami Shiraishi (Japan) checks her Koa seedlings.



Taakena Redfern (Kiribati) displays breadfruit.



David Bishaw (Hilo/Molokai) compares infected papaya fruits.

nutrients in wetland culture. A major objective was to aid growers in determining the optimal levels of nitrogen, potassium, phosphorus, and calcium for best yield. Especially for nitrogen, determining this level was important to prevent excess nutrients from being lost to the ecosystem and to save growers the added cost of unnecessary fertilizer applications. Total nitrogen level for the crop was about 300 lb. The interrelationship between nutrient level and disease incidence was also monitored, with higher levels of fertilizer with slightly more disease and sustainable practices to improve taro paddy culture were tested. Agents **Roy Yamakawa, Steve Fukuda, Randy Hamasaki, Robin Shimabuku** and others actively helped with demonstration trials in local farms. My commitment has been to find disease control options for local farmers with sustainable cultural practices and application of reduced risk fungicides for use in the tropics.

Whenever possible I have graduate students from the Pacific and Asian Countries. Currently **Taakena Redfern**, from Kiribati, is conducting research on breadfruit diseases. **Ayami Shiraishi**, from Japan, is working hard on the molecular biology of koa plants and the pathogen *Fusarium oxysporum*. Ms Shiraishi will develop an assay to identify resistant koa genotypes and also help to isolate *F. oxysporum* to develop a method for growers to use to screen their soil for pathogenic *F. oxysporum*. I also have two other students, **Salid Ismael** from Iraq, who is studying tropical plant pathogens and investigating orchid diseases. **Robert Anderson** is studying the distribution of *P. psidii* in Hawaii and characteristics of disease spread. I enjoy mentoring undergraduates as well as graduate students and presently, I have **David Bishaw** working on papaya fruit pathogens and **Sean Tomas** working on Ohia and other diseases.

For management systems to control diseases, I have been a strong proponent of cultural methods and other sustainable approaches to control diseases. At times chemical controls are needed and for these we have been testing lower risk or environmentally friendly chemicals. We have just completed a preliminary study on the control of plumeria rust working with **Michael Kawate**. For field crops we recommend crop rotation, cover cropping, use of green manure and the addition of compost. These practices aid the health of the soil that reduces the pathogen load in the soil.

Hawaii is an island ecosystem and the absence of many pests and pathogens make this a true paradise. This valuable asset must be protected.

Janice Uchida

Hometown: Kona, Hawaii
Joined CTAHR: 1970
Educational History: PhD
University of Hawaii
(1984); MS University
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University of Hawaii
(1970)



Specialization: Plant
Pathology and Mycology (Fungi)
Current Work: Etiology, Distribution, and Control of
Tropical Fungal Diseases
Languages Spoken: English

Selected Publications

Uchida, J.Y. and L. Loope. 2009. A Recurrent Epiphytotic of Guava Rust on Rose Apple, *Syzygium jambos*, in Hawaii. *Plant Disease* 93:429.

Loope, L., J.Y. Uchida, and L. Mehrhoff. 2007. The Threat of the Non-native Neotropical rust *Puccinia Psidii* to Hawaiian Biodiversity and Native Ecosystems: A Case Example of the Need for Prevention. *Proceedings of the 2007 George Wright Society Conference* 112-117. St Paul, Minnesota.

Elliott, M.L., Broschat, T. K., Uchida, J.Y. and Simone, G.W. Editors. 2004. *Compendium of Ornamental Palm Diseases and Disorders*. American Phytopathological Society Press. St. Paul Minnesota 55121, USA.

Thorpe, D. J., Harrington, T. C. and Uchida, J. Y. 2005. Pathogenicity, internal transcribed spacer-rDNA variation and human dispersal of *Ceratocystis fimbriata* on the family Araceae. *Phytopathology* 95:316-323.

Selected Grants

Uchida, J. and R. Hauff (PIs). PEPS and DLNR. Survey and Biology of the new rust, *Puccinia psidii*. \$52,000, 2005-2008.

Uchida, J. (PI) and C.Y. Kadooka. PEPS. Effective Strategies for Sustainable Vanilla Production in Hawaii. \$95,530, 2008-2010.

Uchida, J. and S. Zhong (PIs). PEPS UHM and North Dakota State University. Molecular ID and Characterization of *Fusarium oxysporum* f. sp. *koa*, the Causal Agent of Koa Wilt in Hawaii. \$134,000, 2008-2010.

Human Use Internal Review Board (IRB) requirements

By Sharee Pepper
CTAHR Grant Coach

How do you know if you need to get University of Hawaii (UH) Internal Review Board (IRB) approval when human subjects are involved? The short answer to this question is that the determination needs to be made by the UH Committee on Human Studies (CHS) Compliance Office and the IRB, and can not be made by individual investigators or faculty members. Therefore, the following information is provided to assist you with the process of presenting your project to the UH CHS to determine if IRB review is necessary, if your project qualifies for an exception, or if an Informed Consent is required. Once you feel that you have determined where your research, study, or project fits into the Human Use regulations, you then need to receive confirmation from the UH CHS office. Requiring all projects that use human subjects in any way to be cleared by a single office protects both you and the UH, as well as any human subjects that might be involved. See the following flow chart and reference information for more guidance.

UH IRB Information

Answers to FAQ can be found at the UH IRB website @ http://www.hawaii.edu/irb/html/gi_over.htm.

For example:

- [What qualifies as "Research" requiring IRB review?](#)
- [What is the definition of "Human Subject"?](#)
- [What about research conducted as a class project?](#)
- [Is there someone I can call if I need assistance or have questions?](#)

When in doubt, contact Bill Dendle, Compliance Officer, UH Committee on Human Studies, Phone: 808.956.8287, e-mail: dendle@hawaii.edu

US HHS OHRP Information

The US Health and Human Services (HHS) Office for Human Research Protection (OHRP) has also provided graphic aids (flow charts) for IRBs, investigators, and others to decide if an activity is research involving human subjects that must be reviewed by an IRB. These flow charts address:

- whether an activity **is research** that must be reviewed by an IRB,
- whether the review may be performed by **expedited procedures**, and
- whether **informed consent** or its documentation may be waived.



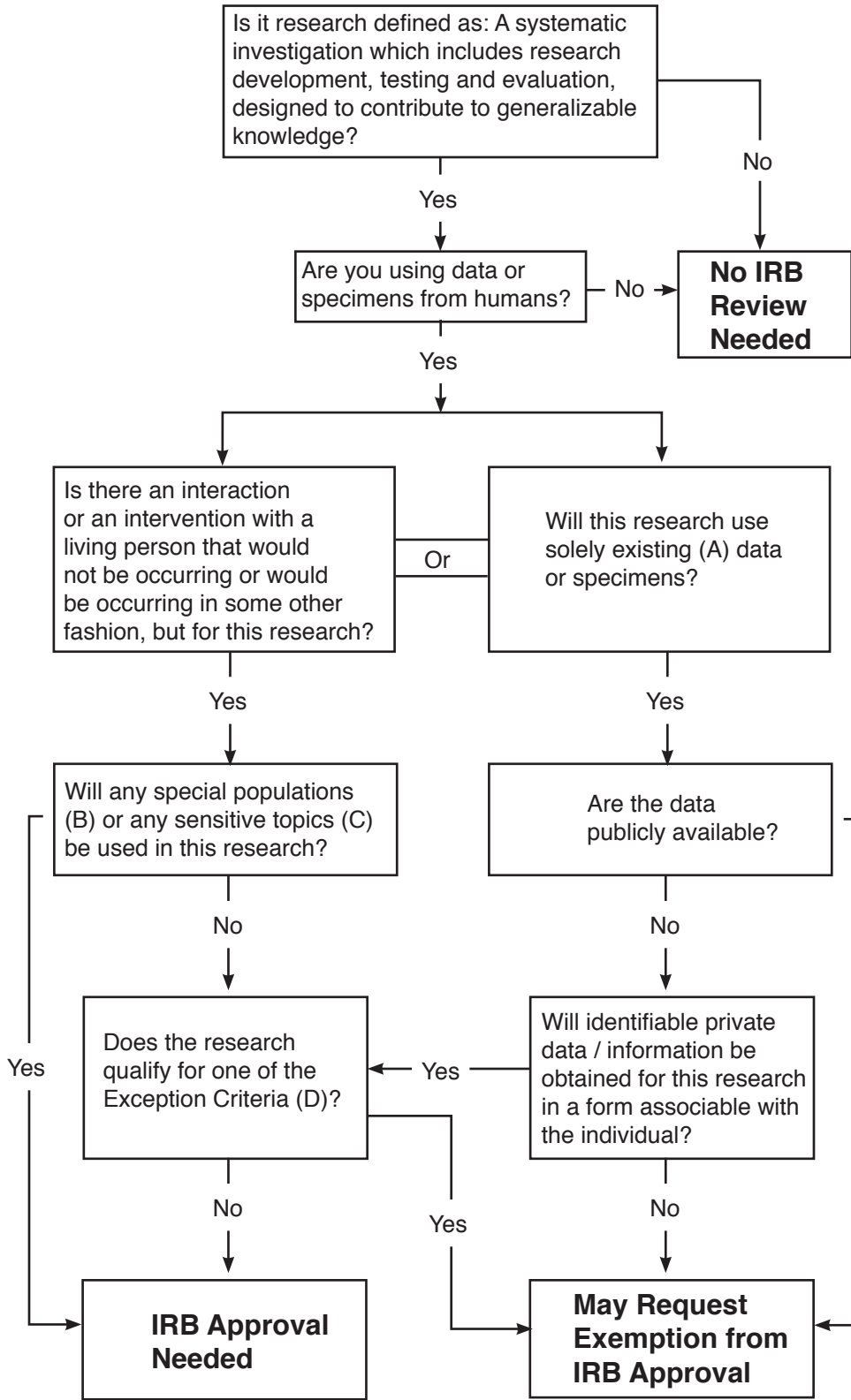
Please go to the following OHRP URL for these flow charts: <http://www.hhs.gov/ohrp/humansubjects/guidance/decisioncharts.htm#c1>

3. NIH IRB Training course

<http://ohsr.od.nih.gov/IRBCBT/intro.php>

The Compliance Office (l-r): Jacob, Janine, Bill, and Donna (Kristin not pictured), with CTAHR's grant coach, Sharee Pepper.

UH Institutional Review Board (IRB) Decision Flow Chart*



Useful Definitions

(A) Existing – Collected (i.e., on the shelf) prior to the research for a purpose other than the proposed research, includes data or specimens collected in research and non-research activities.

(B) Special Populations – Minors, incarcerated individuals or institutionalized mentally disabled persons (individuals residing as patients in an institution who are mentally ill or retarded; emotionally disturbed; psychotic; or senile).

(C) Sensitive Topics – Any topic that has the potential to make the subject uncomfortable, e.g., sexual behavior, racial biases, illegal activities, etc.

(D) Exemption Criteria
 1) Normal educational practices and settings; 2) Anonymous educational tests, surveys, interviews, or observations; 3) identifiable subjects in special circumstances; 4) Collection or study of existing data; 5) Public benefit or service program (only for Federal Agencies), or 6) taste and food evaluation and acceptance studies.

For additional details, see OHRP URL.

* The following Flow Chart is intended for general guidance only and the UH Committee on Human Studies must make all final determinations regarding IRB review requirements.

The research calabash

By Doug Vincent
Special Program Director for Grants and Contracts

Ron Mau featured on USDA ARS Agricultural Research Magazine

Extension Specialist **Ron Mau** (PEPS) is featured on the cover of the March 2009 edition of [USDA Agricultural Research Service Magazine Agricultural Research](#). In a feature story about partnerships between USDA ARS with other institutions. The award winning [HAW-FLYPM](#) is held out as an example of strong partnering for success. HAW-FLYPM is an acronym for the Hawaii Area wide Fruit Fly Pest Management Program and is a collaborative project between CTAHR, USDA ARS Pacific Basin Agricultural Research Center (PBARC) and the Hawaii Department of Agriculture (HDOA).

Among the awards

won, in 2004, the HAW-FLYPM won the USDA Secretary's Honor Award for creating an effective area-wide suppression program for fruit flies which provides the basis for a sustainable rural economy. Pictured (l-r) – **Roger Vargas** (PBARC), **Eric Jang** (PBARC), **Ron Mau** (PEPS) and **Lyle Wong** (HDOA). Congratulations to Ron and his colleagues for the recognition and continued exemplary work in helping Hawaii agriculture succeed.

Seeking your Kokua when submitting grant proposals

With the passage of the America Recovery and Reinvestment Act, otherwise known as the "Stimulus Package," and finally, the FY 2009 federal budget, there may be new or unanticipated funding opportunities. Some programs may have additional funding, some programs may finally receive their funding or there may be new RFA's be released.

Regardless, there may be greater traffic through your Department offices, the CTAHR fiscal office, the UH Office of Research Services (ORS) and through Grants.gov. Please work closely with your Department fiscal APT to assist with budgeting and preparation of the final paper work to help lessen the load on CTAHR administrative staff. One way to make things move more quickly is to give people as much advance time to review your proposal. ORS is again asking for your kokua and requesting that you email ORS in advance of your proposal submission. They are requesting, via email to helpline@ors.hawaii.edu, the following information:

1. Principal Investigator and PI's Contact Information
2. PI's Campus and School
3. Funding Agency (Sponsor) Information and Submission Deadline
4. Link to RFP and/or project announcement or attach the RFP to the email.

Kiss PureEdge Viewer Goodbye – Grants.gov converts to Adobe Acrobat

Go ahead you can un-install your PureEdge Viewer for submitting your proposals to Grants.gov. As of **March 4, 2009**, Grants.gov has transitioned away from PureEdge Viewer to Adobe Acrobat Systems. Now and forever more (or until they change their minds), you must use Adobe Acrobat Reader or Adobe Acrobat Professional to prepare your grant proposals forms for Grants.gov submissions. In the past when you clicked on the "Download Application Package" the executable file would load up PureEdge Viewer, now that same process should open up one sort of Adobe Acrobat system automatically. But not all versions of Adobe Acrobat Reader works but it now appears that Grants.gov has sorted out issues with Microsoft Vista and Mac users. See the Grants.gov web site for more information and to [download compatible Grants.gov Adobe Acrobat software](#) for free. There have been problems with something called a "Broken Pipe Error" with some of the Adobe Acrobat software – currently **Adobe Acrobat Reader 8.1.3 and 9.1** do not have this problem. A reminder that any thing appended to your Grants.gov application must be in .PDF format – the proposal narrative, budget narrative, CVs and other



appendages. If you do not have software to convert document files (.doc, .txt, .rtf) to .PDF format, you can also download conversion software. From Grants.gov:

Computer	Operating System	Forms Program	Compatible
Mac	Tiger	Adobe Reader (8.1.1, 8.1.2, 8.1.3, 9.0, 9.1)	Yes
Mac	Leopard	Adobe Reader (8.1.1, 8.1.2, 8.1.3, 9.0, 9.1)	Yes
PC	Windows XP	Adobe Reader (8.1.1, 8.1.2, 8.1.3, 9.0, 9.1)	Yes
PC	Windows VISTA	Adobe Reader (8.1.1, 8.1.2, 8.1.3, 9.0, 9.1)	Yes

2009 CTAHR Award Winners Named

Join us at the [21st Annual CTAHR Awards Banquet](#) on **April 30, 2009** to honor CTAHR's outstanding award winners. The 2009 Ka Lei Hano Heritage Award goes to **Ms. Susan Doyle**. Susan is the President and Chief Professional Officer for [Aloha United Way](#) and a member of [CTAHR's Board of Advisors](#). The Outstanding Alumnus of the Year is **Dr. Suresh Rao**, Lee A. Rieth Distinguished Professor of Civil Engineering and Agronomy at Purdue University. Dr. Rao earned a Ph.D. from CTAHR in 1974 and is an expert in environmental engineering and remediation. The Dean's Award for Excellence in Teaching will be given to **Dr. Michael Dunn** of [HNFAS](#). For Research Excellence, **Dr. Chennat Gopalakrishnan**, [NREM](#) will receive the award. For Excellence in Extension, **Mr. Andrew Kawabata**, [TPSS](#) and [Hawaii County](#). The Dean's Awards for Outstanding Service by an APT and for Civil Service go to **Mr. Brian Bushe**, [PEPS](#), and **Mr. Angel Magno**, both of [Hawaii County](#), respectively. **Dr. Mary Martini** of [FCS](#) will receive the Ka Pouhana (Mentor) Award. See the [CTAHR Awards Banquet](#) web site for more information.

CTAHR Grad Crews Hokulea



CTAHR graduate **Elisha Witt** (M.S. Animal Sciences) is currently crewing on the Polynesian voyaging canoe **Hokulea** on its March 2009 training voyage to Palmyra. Hokulea and its crew are preparing for a [world wide](#)

[voyage](#). Eli teaches Oceanography and coordinates Marine Education at the [Myron B. Thompson Academy](#). You can read more about [Eli Witt](#) on his crew profile and more about the [current voyage to Palmyra](#).

Attend the 21st Annual CTAHR Student Research Symposium

The [21st Annual CTAHR Student Research Symposium](#) will take place on April 3-4, 2009 in the Agricultural Sciences Building. The Symposium is open to graduate and undergraduate students conducting scholarly work under the supervision of faculty in UH Manoa's College of Tropical Agriculture and Human Resources and UH Hilo's College of Agriculture, Forestry and Natural Resource Management. The web site includes [Symposium guidelines](#), information on [preparing abstracts](#), instructions for [oral presentations](#) and [poster presentations](#). **Abstracts were due on March 6, 2009.** [Download the abstract form here](#). For more information contact Symposium program coordinator, **Traci Sylva** by e-mail at tsylva@hawaii.edu. Posters submitted to the [CTAHR Computer Lab](#) for printing before **March 28, 2009** will receive a 10% discount on printing. Posters printed on **April 1-2, 2009** will be assessed an additional \$20 "Rush Fee." For information about large format printing (PC only) contact **Wayne Toma**, HNFAS at toma@hawaii.edu or call 956-7857.

Agricultural Diversification: Hawaii Tropical Specialty Fruit Research and Development FY 2009 proposals due March 30, 2009.

We are seeking proposals for the USDA CSREES Special Research Grant "**Agricultural Diversification: Hawaii Tropical Specialty Fruit Research and Development.**" We will have limited funds for new projects. [Download the RFP](#). The deadline for new proposals is **4:30 pm, Monday, March 30, 2009**. We recommend that you review the recent CTAHR paper by Mike Nagao "[Industry Analysis: Identifying Research and Extension Priorities for Hawai'i's Avocado, Banana, Citrus and Specialty Fruits](#)"

available on-line. This paper provides recent industry stakeholder input on the research and needs for these crops. If you have questions, contact **Doug Vincent** at vincent@hawaii.edu.

New USDA CSREES Requests for Applications

Two recent USDA CSREES RFA's bare special attention. The [USDA CSREES Beginning Farmer and Rancher Development Program](#) has released it's RFA with a due date of **May 13, 2009**. There is no letter of intent required but there is a 25% cost sharing requirement. [Download the Request for Applications](#). Also recently released is the [Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Programs](#). There is no cost sharing or LOI required and the proposals are due **May 8, 2009**. [Download the Request for Applications](#).

Recent changes to two current USDA CSREES grants programs

With the passage of the FY 2009 budget, came two changes in existing programs. First, the **final RFA** for the [USDA CSREES Agriculture and Food Research Initiative \(AFRI\)](#) was released. Remember that this program replaced the National Research Initiative. Secondly, an adjustment was made to the rules relative to the cost sharing requirement in the [USDA CSREES Specialty Crop Research Initiative](#). This program requires 100% cost sharing. In the previous year, the difference between the capped indirect costs and fully negotiated institutional indirect cost rates could not be used as a cost share. When the budget bill was passed, the rules were changed to indicate that this difference may be used as part of the cost sharing. [Read more here](#). USDA CSREES has also created a [SCRI Matching Funds FAQ](#).

Mark your calendar – USDA CSREES to visit CTAHR

Our primary federal partner, [USDA Cooperative State Research, Education and Extension Service](#) will be visiting CTAHR on **April 15 and 16**. USDA CSREES assigned to staff members to serve as our state liaisons. **Dr. Peter Burfening** and **Dr. Louie Tupas** are ours. Dr. Burfening, from Competitive Programs, will be visiting CTAHR on **Wednesday, April 15 and Thursday, April 16, 2009**. On Wednesday, Dr. Burfening will be making a presentation to the CTAHR Leadership at our monthly meeting. On Wednesday afternoon, we will have him available to meet with us about various CSREES program, either in groups or as individual faculty. On Thursday morning Dr.

Burfening will be visiting the Waimanalo Experiment Station. If you would like to meet with Dr. Burfening, please let me know and we'll try to schedule you. Sorry no neighbor island visits.

CTAHR on YouTube – YouBet!!

CTAHR has a “growing” presence on [YouTube](#). Several CTAHR faculty have created “Virtual Field Days” on YouTube. Go to the [Hawaii Sustainable Agriculture Channel](#) on YouTube to find these efforts. There you'll find [Ted Radovich's](#) (TPSS) Vermicompost in Hawaii; [Koon-Hui Wang's](#) (PEPS) Sunnhemp for Soil Health and three videos by [James Leary](#) (PEPS) on evaluating Native Hawaiian Groundcovers. For those of you interested in Invasive Weed Management – see the [HawaiiRREA channel](#) – there you'll find a collection of a dozen videos on weed management – including videos featuring CTAHR's Herbicide Commando, **James Leary** on his [Herbicide Ballistic Technology](#). A tip of cap to CTAHR's [Jody Smith](#) (NREM) who helped craft many of these videos.

UH Office of Research Services March 2009 Newsletter

See the **March 2009** issue of the [UH Office of Research Services Newsletter](#). This month there is information about changes to the NSF Proposal & Award Policies Guide. There is also information about the Fly America Act and Open Skies Agreements about foreign air travel. Download it and take a look.

Fall 2009 Graduate Assistant Contract Renewals

Graduate Division has notified Graduate Chairs and Directors that it is now time to notify Graduate Division of continuations, and terminations for Fall Semester 2009. Graduate Division also reminds us to advise ALL Graduate Assistants of the following:

- Graduate Assistants must carry a minimum of 6 credits while employed as a Graduate Assistant unless approved and enrolled in 700F or 800 and in good academic standing.
- Graduate Assistants are responsible for paying their student fees; failure to do so will result in a Financial Obligation inhibiting their usage of services on campus such as: borrowing books at any UH System library, gym usage, etc.
- The tuition exemption takes 2 to 3 days to appear in their MyUH Portal account after input. Please refrain from excessive inquiries on the inputs; this does slow down the process.

Deadline for GATEX submission for all **continuing** Graduate Students – **April 24, 2009**.

Deadline for GATEX submission for all **New Hires** and **Newly Admitted** Graduate Students – **July 31, 2009**.

[Download the memo and other information about these deadlines.](#)

Facilitation Training Offered in April, 2009 – reprise

The [Agricultural Leadership Training Program of Hawaii](#) will be offering two courses in April, 2009. [Advanced Facilitation](#) will be offered from April 6-7, 2009. [Facilitative Skills for Collaborative Leaders](#) will be held on April 28-29, 2009. For more information and/or to register see the specific web sites or contact [Dr. Donna Ching](#) of the [Department of Family and Consumer Sciences](#).

Maui Master Gardener Training Course Set - reprise

Maui County Cooperative Extension will be offer a 13 week training course for those interested in becoming Certified Master Gardeners. The course will run every **Wednesday** from 9:00 am – 3:30 pm, starting on **April 1, 2009 through June 24, 2009** at the Kahului CES office on the MCC campus. For more information contact, **Anne Gachuhi** on Maui at 808-244-3242 x232 or by e-mail at gachuhia@ctahr.hawaii.edu.

Hamilton Library EndNote Workshops for Graduate Students

Due to popular demand the **Hamilton Library Science and Technology Reference Librarians** are continuing their workshops in April 2009 on how to use **EndNote** – the industry standard bibliographic software; ideal for tracking cited reference in theses or dissertations. I guess I can now dispose of my 3 x 5 card files! Space is limited and the workshop fill up fast – See the [EndNote Workshop web page](#) for dates and times, to register and for more information.

Dry Ice Availability during Extended Power Outages -reprise

The recent campus wide power outage on December 26-27, 2008, temperatures were elevated in -80° and other ultra-low temperature freezers. The Office of the Vice Chancellor for Research and Graduate Education has established new policies regarding the making available of dry ice from the Chemistry Stockroom during periods of extended power outages. After power has been off for 10 continuous hours,

the Chemistry Stockroom in Bilger 112 will open and dry ice will be made available to help maintain critical temperatures. [You can read more about the policy here.](#)

CTAHR Research Portfolio Available for Download - reprise

The CTAHR Office of Research has produced a [2009 CTAHR Research Portfolio](#). Over the last year, **Associate Director C.Y. Hu** requested “one-pagers” outlining the research expertise of the CTAHR Faculty with research appointments. Originally, these were prepared to share with Chinese institutions with interests in sending students to CTAHR. The “one-pagers” have been compiled into the [2009 CTAHR Research Portfolio](#). This 123 page .pdf file is sorted by Department and each one pager has contact information, research interests and recent publications of CTAHR faculty with research appointments. If you have any questions about the portfolio or need to update information, contact Dr. Hu at 956-8131.

Need help with making that grant perfect? See CTAHR’s Grant Coach.

The CTAHR Office of Research is offering **grant coaching support** for individuals or small groups who are currently writing grants that have indirect cost returns. We are using RTRF funds to pay for this pilot program; therefore, it is important that we invest in opportunities that result in a return to that investment. Indirect cost returns provides CTAHR, college units and PIs (that generate the RTRF) with additional, highly flexible funding that can be used to support and expand research programs. We hope that by increasing our success rates in obtaining competitive grants, we will have greater direct and indirect costs to support our research activities. So if you are currently writing grants (or you plan to write a proposal) and want help developing, polishing and refining your proposal to meet an upcoming deadline, contact CTAHR grants coach, **Sharee Pepper** at 956-8140 or by e-mail at spepper@hawaii.edu.

Dates and Events – Mark Your Calendars Today

CTAHR Student Research Symposium – April 3, 4, 2009

Plan now to attend the **21st Annual CTAHR Student Research Symposium** will be **Friday and Saturday, April 3-4, 2009** in the Agricultural Sciences Bldg. The Symposium brings out the best research our students – both graduates and undergraduates. Over

100 abstracts have been submitted this year. In addition, Chef Mark Segobiano, HNFAS, has plans for delightful “grinds” on Friday and Saturday. See the [CTAHR Student Symposium’s web site](#) for more information.

First Saturday at the Kanewai Lo’i – April 4, 2009

Everyone is invited to attend the monthly community clean up event at the Ka Papa Lo’i o Kanewai Cultural Garden. The garden provides experiential learning opportunities to school and community groups in the traditional farming practices and culture of Native Hawaiians. Come dressed to do yard work and get muddy. Light refreshments will be provided but donations of food and drink are always welcome. Contact the garden at 945-1562 or kanewai@hawaii.edu for more information.

Hawaii State Science and Engineering Fair – April 6-9, 2009

The [Hawaii State Science and Engineering Fair](#) may still be **seeking science fair judges for its annual state fair on: April 7, 2009**. Contact the Hawaii Academy of Science here: acadsci@hawaii.edu to find out if they are still looking for judges. There are two rounds of judging on April 7, 2009; from 8:00 am – 11:30 am is the Interview section. From 1:00 pm – 4:45 pm is the Interviews and Final Selection for projects. [Download the judges reply form here](#) and **fax it to 956-5183**, or e-mail the completed form to acadsci@hawaii.edu. CTAHR has a strong history of support of the Hawaii State Science and Engineering Fair.

Organic Gardening at OUGC – Saturday, April 11, 2009

Join the Oahu Master Gardeners at the **Oahu Urban Garden Center at Pearl City** for information about



organic home gardening. On **Saturday, April 11, 2009** from **9:00 am to 12:00 noon** to see the organic herb garden. Come learn about organic weed control, organic soil amendments, nitrogen-fixing

plants and soil testing. Like worms? We got ‘em – come see the vermicomposting demonstration. See the [Oahu Urban Garden web site](#) for more information and directions to the UGC.

14th Annual Kauai Garden Fair – Saturday, April 18, 2009

The **Kauai Garden Fair** is a popular “one-stop-shop” event for gardener and garden lovers. Join us at the **Kauai Community College on Saturday, April 18, 2009** from **9:00 am – 4:00 pm**. The expanded fair not only provides information about plants, flowers and gardening supplies but also features Kauai-grown fresh produce and other ingredients for a healthy lifestyle. Lectures, information booths and 4-H activities for the kids.

Sew’d Out – APDM’s Annual Fashion Show and Luncheon – Sunday, April 26, 2009

What? In an Ag School? Of course!! Please join us for “**Sew’d Out**” – **CTAHR’s Annual Fashion Show and Luncheon on Sunday, April 26, 2009** at the [Pacific Beach Hotel](#), 2490 Kalakaua Ave in Waikiki. Talk about workforce development? CTAHR’s Apparel Product Design and Merchandising program, out of the [Department of Family and Consumer Sciences](#), is the backbone of Hawaii’s apparel industry. Come see the future of this important value-added industry to Hawaii and the hard work of 11 senior and 11 junior designers. Doors open at 11:00 am, lunch is at noon, with the show following! Cost is \$40.00 per person. For more information contact Andy Reilly, FCS, at areilly@hawaii.edu.

CTAHR Awards Banquet – April 30, 2009

This year’s big event is, and I’m not referring to President Barack Obama’s inaugural ball, our annual CTAHR Awards Banquet will be held on **Thursday, April 30, 2009** at the Hilton Hawaiian Village Coral Ballrooms. See the [Award’s Banquet web site](#) for more information. Please RSVP by **April 14, 2009**.

14th Annual Mealani’s A Taste of the Hawaiian Range – Friday, September 18, 2009.

Mark your calendars for Hawaii’s foodie event of the year! The 14th Annual “Mealani’s A Taste of the Hawaiian Range” will be held again at the Hilton Waikoloa Village on the Kohala Coast of the Island of Hawaii on Friday, September 18, 2009. See the [“Taste’s” web site](#) for more information.

New faces in the Dean's office

We are pleased to introduce several new faces in Gilmore 202. Although not really “new,” Eunice Morisaki was recruited to serve as Dean Andrew Hashimoto’s Executive Assistant. Eunice assists the Dean in a wide variety of activities but is considerably busy these days coordinating testimonies and tracking bills in the legislature. Eunice is originally from Kahului, Maui, got a BS from Purdue University, and most recently was with DAGS. Assisting Eunice is our new Office Assistant, Caren Char. Caren joined CTAHR in November, 2008, holds a BA in Biology from UH-M and is originally from Wailuku, Maui. Finally, Associate Dean and Associate Director C.Y. Hu has a new Secretary, Roxanne Yee. Roxanne joined CTAHR in February, 2009 after working in the Department of Education, Department of Public Safety and Del Monte. Roxanne is from Kaimuki and has a BA in Psychology from UH-M. So if you stop by the Dean’s office and see new faces, welcome them to our CTAHR ohana.



Caren Char



Roxanne Yee



Eunice Morisaki

ADAP and CTAHR's Jim Hollyer honored

Jim Hollyer, Program Manager of CTAHR’s [Agricultural Development in the American Pacific](#) was honored for his 10 years of service as an RCUH employee. Jim was recognized by Dean Andrew Hashimoto at the March 18, 2009 meeting of the Dean’s Cabinet. The “old-timers” in CTAHR know that Jim has been with CTAHR for a long time, considerably more than 10 years, but for the last 10 years, Jim’s funding has gone through RCUH. Not only does Jim ably lead the ADAP program, but he’s active in other projects in support of Hawaii Agriculture – such as the [On-Farm Food Safety Program](#). Jim’s also responsible for putting the CTAHR Research News together every month. An agricultural economist by training, Jim’s also a trained facilitator and uses his skills in support of CTAHR and other organizations across the State. Congratulations and Mahalo nui loa to Jim for his hard work and dedication to agriculture in Hawaii and across the Pacific.



Jim Hollyer receives a RCUH service award from Dean Andy Hashimoto.

Forget what the pundits say, there is money out there for our work - go for it!

By Doug Vincent
Special Program Director for Grants and Contracts

No one can predict that when we will reach the bottom. Earlier this month the [Hawaii Council on Revenues](#) revised their projections for revenue this fiscal year from -3% to -5%. We don't see a return to strong growth until 2011. Already the budget ax has hit many Hawaii programs. For example, even though several grant proposals to HDOA were approved by the agency, Budget and Finance won't release the funds because of the short fall. On the plus side – the federal government is dumping lots of funds into the American Recovery and Revitalization Act – ARRA or the “stimulus package”. There are not a lot of opportunities for agricultural grants but agencies such as NSF and NIH have received a significant boost in their budgets. The government has opened a new website: www.recovery.gov on the recovery for transparency purposes. Each [federal agency receiving the funds](#) must also have a site explain how their agency is distributing the funding. [USDA](#), [NSF](#), [Health and Human Services](#), [NIH](#), [EPA](#), [Commerce](#), [Energy](#) all have sites up. Whether these opportunities will pertain directly to you is, in part, up to you. Some reports have indicated that the agencies are looking for ways to spend the money. So we can be creative and seek out opportunities where we can find them. A proverb I learned from CTAHR's East Tennessee Good ol' Boy Charlie Weems is *“The answer's no, unless you ask.”* If you've got a good idea – ask. But don't wait too long. This money is FY 2009 funding and must in the hands of the recipients by September 30, 2009. So if you find an opportunity – go for it. Once again, **Dr. Sharee Pepper** has compiled for you a list of funding opportunities that might work for you. Take a look and if we can help make that proposal better or help move things along – just ask us. But I must add a cautionary note, please don't be a procrastinator – the staff in the CTAHR fiscal office is short. Grants.gov is overloaded – we'd all hate for you to write a fundable proposal and have it be lost due to delays in processing. Give it as much time as possible. Thanks and happy grant writing.

The following list includes some current funding opportunities that may be of interest to CTAHR faculty. If the deadline is too short for this year, it is still a good indication of the likely due date for next year. **Let us know if we can be of any assistance with developing and editing your grant application.**

For information on submitting grants electronically on grants.gov the following publication may be useful. **USDA, CSREES Grants.gov Application Guide – A guide for the preparation and submission of CSREES applications via grants.gov.**

http://www.csrees.usda.gov/funding/grant_forms/electronic_app_guide.pdf

Agriculture

\$ - USDA, CSREES - Agriculture and Food Research Initiative (AFRI) Competitive Grants Program (Note: includes prior NRI grants)

Deadline: See Table on last page for revised LOI and application deadlines

http://www.csrees.usda.gov/funding/afri/pdfs/program_announcement.pdf or

<http://www.csrees.usda.gov/funding/afri/afri.html>

\$ - USDA, CSREES - Critical Issues: Emerging and New Plant and Animal Pests and Diseases

Deadline: April 3, 2009

http://www.csrees.usda.gov/funding/rfas/pdfs/09_critical_issues.pdf

\$ - USDA, CREES - Special Research Grants Program: Pest Management Alternatives Research

Deadline: April 7, 2009

<http://www.csrees.usda.gov/funding/rfas/pmap.html>

\$ - USDA, CSREES - Specialty Crop Research Initiative (SCRI)

Deadline: April 15, 2009

http://www.csrees.usda.gov/funding/rfas/specialty_crop.html

\$ - USDA, CSREES - Integrated Research, Education, and Extension Competitive Grant Program National Integrated Food Safety Initiative (NFIS)

Deadline: Aril 15, 2009

http://www.csrees.usda.gov/funding/rfas/pdfs/09_food_safety.pdf

\$ - EPA, Office of Pesticide Programs (OPP)
Initial proposals due April 15th.
http://www.epa.gov/pestp/PRIA2_Announcement_FY09.pdf

\$ - EPA - Quantifying Soil Carbon Sequestration Potential Through Improved Pasture Management
Deadline: April 20, 2009
<http://www.epa.gov/air/grants/09-07.pdf>

\$ - USDA Farmers Market Promotion Program (FMPP)
Deadline: April 27, 2009
<http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5075760&acct=fmpp>

\$ - USDA, CSREES – Beginning Farmer and Rancher Development Program
Deadline: May 13, 2009
<http://www.csrees.usda.gov/funding/rfas/bfrdp.html>

\$ - USDA & EPA - Enhancing Ecosystem Services From Agricultural Lands: Management, Quantification, And Developing Decision Support Tools
Deadline: May 26, 2009
http://es.epa.gov/ncer/rfa/2009/2009_star_ecosystem_services.html

\$ - USDA & EPA - Agriculture and Food Research Initiative - Global and Climate Change
Deadline: May 26, 2009
http://es.epa.gov/ncer/rfa/2009/2009_star_ecosystem_services.html

\$ -USDA, CSREES - Western Sustainable Agriculture Research and Education Program Sustainable Agriculture Tours
Deadline: Open until funding is exhausted
http://wsare.usu.edu/grants/docs/RFA_SAT.pdf

Education

\$ - NOAA - Dr. Nancy Foster Scholarship Program
Due March 31, 2009
<http://apply07.grants.gov/apply/opportunities/instructions/oppSEC-OED-2009-2001418-cfda11.481-cid2113921-instructions.pdf>

\$ - USDA, CSREES - Resident Instruction Grants for Institutions of Higher Education in Insular Areas
Deadline: April 10, 2009
http://www.csrees.usda.gov/funding/rfas/resident_insular.html

\$ - USDA, CSREES - Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Grants Program
Deadline: May 8, 2009
http://www.csrees.usda.gov/funding/rfas/national_needs.html

\$ - NSF - Research Experiences for Undergraduates
Deadline: June 5, 2009
http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf07569

\$ - National Education Association (NEA) Foundation - Foundation Supports Professional Development for Educators
Deadline: June 6
http://www.neafoundation.org/programs/Learning&Leadership_Guidelines.htm
[Link to Funder Profile](#)

\$ - Asia and Pacific Islander Organization (APIO) - 2009 APIO Scholarships
Deadline: June 30, 2009
http://www.apio.org/scholarship/APIO_Scholarship_Application_2009.doc

\$ - Human Frontier Science Program – Short Term Fellowship Program
Deadline: rolling – applications accepted year round
http://www.hfsp.org/how/appl_forms_STF.php

Environment, Water, Energy, Invasive Species Grants

\$ - Wildlife Conservation Society Accepting Applications for State Wildlife Action Plans Funding
Deadline: March 27, 2009 (Pre-proposals)
<http://fconline.foundationcenter.org/pnd/15017255/globalconserve>

\$ - NOAA Coastal and Estuarine Land Conservation Program FY 2010 Competition (may need to partner with state agency)
Due March 31, 2009
<http://apply07.grants.gov/apply/opportunities/instructions/oppNOS-OCRM-2010-2001655-cfda11.419-cid2138567-instructions.pdf>

\$ - NIH - Research to Action: Assessing and Addressing Community Exposures to Environmental Contaminants (R21)
Deadline: April 1, 2009
<http://grants.nih.gov/grants/guide/rfa-files/RFA-ES-09-001.html>

\$ - USDA, RAC - The Center for Tropical and Subtropical Aquaculture (CTSA)
Deadline for two-page pre-proposal: April 7, 2009
<http://www.ctsa.org>

\$ - USDA, Rural Development - Energy Audits and Renewable Energy Development Assistance Grant
Deadline: June 9, 2009
<http://edocket.access.gpo.gov/2009/pdf/E9-5154.pdf>

\$- NSF – Long Term Research in Environmental Biology (LTREB)
Deadlines: July 9 Annually
<http://nsf.gov/pubs/2007/nsf07588/nsf07588.htm>

\$ - NOAA Broad Agency Announcement (for special projects)
Due September 30, 2009 (closes but applications accepted on a rolling basis)
NOAA Office of Education:
<http://apply07.grants.gov/apply/opportunities/instructions/oppNFA-NFA-2008-2001388-cid2112140-instructions.pdf>
National Marine Fisheries Services
<http://apply07.grants.gov/apply/opportunities/instructions/oppNFA-NFA-2008-2001388-cid2112136-instructions.pdf>
National Environmental Satellite Data Information Service
<http://apply07.grants.gov/apply/opportunities/instructions/oppNFA-NFA-2008-2001388-cid2112133-instructions.pdf>
National Ocean Service
<http://apply07.grants.gov/apply/opportunities/instructions/oppNFA-NFA-2008-2001388-cid2112139-instructions.pdf>

\$ - U.S. Fish and Wildlife Service - Coastal Programs
Deadline: September 30, 2009
<http://apply07.grants.gov/apply/opportunities/instructions/oppCOASTAL-09-cfda15.630-instructions.pdf>

\$ - National Forest Foundation: Community Assistance Program
Local Forest Partnerships Fund
Deadline: proposals accepted on a rolling basis throughout year
http://www.natlforgest.org/consp_05_cap.html

Families, Youth and Children Grants

\$ - CHS Foundation
Rural Youth and Leadership Development
Deadline: rolling – applications accepted year round
<http://www.chsfoundation.org/programs/ryld.htm>

Financial Grants

\$ - Department of Commerce, Economic Development Administration - FY 09 University Center Economic Development Program Grant
Deadline: April 21, 2009
<http://www07.grants.gov/search/search.do?&mode=VIEW&flag2006=false&oppld=45417>

\$ - Money Management International Financial Education Foundation,
Financial Education Grants
Deadline: rolling – applications accepted year round
<http://www.mmifoundation.org/GrantSeekers.asp>

Health, Nutrition, Food & Biomedical Grants

\$ - USDA, CSREES - Grant Program: National Integrated Food Safety Initiative
Deadline: April 15, 2009
<http://www07.grants.gov/search/announce.do;jsessionid=GIM2J5bTZnwwknbZWt4nILkps6HzsZ8x6fKQG1FJphj3MnG33CgQ!1677821819>

\$ - NIH - Challenge Grants in Health and Science Research (RC1)
Deadline: April 27, 2009
<http://grants.nih.gov/grants/guide/rfa-files/RFA-OD-09-003.html>

\$ - NIH - Improving Diet and Physical Activity Assessment (R21)
Deadline: May 7, 2009
<http://grants.nih.gov/grants/guide/pa-files/PAR-06-103.html>

\$ - NIH -Pilot and Feasibility Clinical Research Studies In Digestive Diseases And Nutrition
Deadline: May 7, 2009
<http://www07.grants.gov/search/search.do;jsessionid=LH SflHfSL4pBXG0Dtb7PpzkdDBMHJSI6vhyGyQ1tpTnGcSJ2WfZD!488375993?oppld=8805&flag2006=true&mode=VIEW>

\$ - CDC, NIOSH - Exploratory and/or Developmental Grant Program (R21) (Focus: Reducing Occupational Disease & Injury)
Deadline: May 8, 2009
<http://grants1.nih.gov/grants/guide/pa-files/PAR-06-552.html>

\$ - NIH – Pre-Application for Dietary Supplement Research Centers: Botanicals (X02)
Deadline: April 30, 2009
<http://grants.nih.gov/grants/guide/pa-files/PAR-09-091.html>

\$ - NIH - Exploratory/Developmental Clinical Research Grants in Obesity (R21)
Deadline: May 7, 2009
<http://www07.grants.gov/search/search.do;jsessionid=LH SflHfSL4pBXG0Dtb7PpzkdDBMHJSI6vhyGyQ1tpTnGcSJ2WfZD!488375993?oppld=8575&flag2006=true&mode=VIEW>

\$ - NIH – Improving Diet and Physical Activity Assessment (R21)
Deadline: May 7, 2009
<http://grants.nih.gov/grants/guide/pa-files/PAR-06-103.html>

\$ - USDA, CSREES - Agriculture and Food Research Initiative - Human Nutrition and Obesity
Deadline: June 15, 2009
<http://www.csrees.usda.gov/fo/fundview.cfm?fonum=2083>

Humanities Grants

\$ - [Hitachi Foundation: Business and Communities Grants Program](http://www.hitachifoundation.org/grants/guidelines/index.html)
 Grants Address Economically Isolated Communities
 Interested organizations may submit an online inquiry to provide information about project ideas **at any time** and the Foundation's will determine if it fits their priorities.
<http://www.hitachifoundation.org/grants/guidelines/index.html>

Rural and Community Development Grants

\$ - USDA, Rural Development
 Community Facilities Loan and Grant Program
Deadline: Applications accepted on an ongoing basis
<http://www.rurdev.usda.gov/rhs/cf/cp.htm>
http://www.rurdev.usda.gov/rhs/cf/brief_cp_grant.htm

\$-Farm Foundation Grants
Deadline: Applications accepted on an ongoing basis
http://www.farmfoundation.org/news/templates/comm_template.aspx?articleid=357&zoneid=67

Science Grants

\$ - National Geographic Society – Waitt Grants Program
Deadline: Rolling
<http://www.nationalgeographic.com/field/grants-programs/waitt-grants-application.html>

UH, Hawaii and Regional Grants

\$ - UH, University Research Council - Faculty Travel Funds
Proposal Deadline: rolling – applications must be in >4 weeks before travel.
http://www.hawaii.edu/urc/pdf/factravel_g.pdf
http://www.hawaii.edu/urc/pdf/factravel_f.pdf

USDA, CSREES - Agriculture and Food Research Initiative (AFRI) Competitive Grants Program Contacts (Note: replacing NRI grants)

http://www.csrees.usda.gov/funding/afri/pdfs/program_announcement.pdf

USDA CSREES Agriculture and Food Research Initiative (AFRI) Competitive Grants	LOI Due	Deadline	National Program Leader	e-mail address
Air Quality	3/5/2009	6/5/2009	Raymond Knighton	rknighton@csrees.usda.gov
Animal Genome, Genetics and Breeding	3/5/2009	5/14/2009	Peter Burfening	pburfening@csrees.usda.gov
Animal Growth and Nutrient Utilization	none	7/8/2009	Mark A. Mirando	mmirando@csrees.usda.gov
Animal Health and Well-Being: Animal Health	1/16/2009	3/13/2009	Peter Johnson	pjohnson@csrees.usda.gov
Animal Health and Well-Being: Animal Well-Being	1/16/2009	3/13/2009	Peter Johnson	pjohnson@csrees.usda.gov
Animal Health and Well-Being: Tools and Resources	6/1/2009	8/14/2009	Peter Johnson	pjohnson@csrees.usda.gov
Animal Reproduction	none	3/3/2009	Mark A. Mirando	mmirando@csrees.usda.gov
Applied Plant Genomics Coordinated Agricultural Project	1/16/2009	3/11/2009	Ed Kaleikau	ekaleikau@csrees.usda.gov
Arthropod and Nematode Biology and Management: Organismal and Population Biology	none	3/9/2009	Mary Purcell-Mirantes	mpurcell@csrees.usda.gov

Arthropod and Nematode Biology and Management: Suborganismal Biology	4/1/2009	6/24/2009	Mary Purcell-Miramontes	mpurcell@csrees.usda.gov
Arthropod and Nematode Biology and Management: Tools, Resources and Genomics	4/1/2009	6/24/2009	Mary Purcell-Miramontes	mpurcell@csrees.usda.gov
Bioactive Food Components	1/22/2009	4/13/2009	Etta Saltos	esaltos@csrees.usda.gov
Biobased Products and Bioenergy Production Research	2/11/2009	4/2/2009	Chavonda Jacobs-Young	cjacobs@csrees.usda.gov
Improving Food Quality and Value	1/21/2009	4/10/2009	D. Ramkishan Rao	rrao@csrees.usda.gov
Food Safety and Epidemiology - Biological Approaches to Food Safety	3/4/2009	5/6/2009	Nancy Cavallaro	ncavallaro@csrees.usda.gov
Food Safety and Epidemiology - :Epidemiological Approaches to Food Safety	3/4/2009	5/6/2009	Nancy Cavallaro	ncavallaro@csrees.usda.gov
Food Safety and Epidemiology - Practical Approaches for Food Safety	3/4/2009	5/6/2009	Nancy Cavallaro	ncavallaro@csrees.usda.gov
Human Nutrition and Obesity	none	6/15/2009	Etta Saltos	esaltos@csrees.usda.gov
Integrated Solutions for Animal Agriculture	3/16/2009	6/30/2009	Peter Johnson	pjohnson@csrees.usda.gov
Managed Ecosystems	3/3/2009	6/2/2009	Diana Jerkins	djerkins@csrees.usda.gov
Markets and Trade	none	5/15/2009	Siva Sureshwaran	ssureshwaran@csrees.usda.gov
Microbial Biology: Microbial Associations with Plants	2/16/2009	4/30/2009	Ann Lichens-Park	apark@csrees.usda.gov
Microbial Genomics: Functional Genomics of Microorganisms	2/5/2009	4/16/2009	Ann Lichens-Park	apark@csrees.usda.gov
Microbial Genomics: Genomic Sequencing	none	3/2/2009	Ann Lichens-Park	apark@csrees.usda.gov
Plant Biology: Biochemistry	2/20/2009	4/27/2009	Ed Kaleikau	ekaleikau@csrees.usda.gov
Plant Biology: Plant Breeding and Education	3/16/2009	6/15/2009	Liang-Shiou Lin	llin@csrees.usda.gov
Plant Biology: Environmental Stress	1/30/2009	3/27/2009	Diana Jerkins	djerkins@csrees.usda.gov
Plant Biology: Growth and Development	3/2/2009	5/19/2009	Liang-Shiou Lin	llin@csrees.usda.gov
Plant Biosecurity	4/13/2009	6/26/2009	Liang-Shiou Lin	llin@csrees.usda.gov
Plant Genome, Genetics and Breeding	1/16/2009	3/11/2009	Ed Kaleikau	ekaleikau@csrees.usda.gov
Protection of Managed Bees	3/2/2009	5/1/2009	Mary Purcell-Miramontes	mpurcell@csrees.usda.gov
Rapid Response	7/30/2009	7/30/2009	Mark Poth	mpoth@csrees.usda.gov
Soil Processes	1/16/2009	3/17/2009	Nancy Cavallaro	ncavallaro@csrees.usda.gov
Sustainable Agroecosystems Science	none	3/2/2009	Michael A. Bowers	mbowers@csrees.usda.gov
Water and Watersheds	None	4/15/2009	James P Dobrowski	jdobrowski@csrees.usda.gov
Weedy and Invasive Species	4/20/2009	6/19/2009	Michael A. Bowers	mbowers@csrees.usda.gov

Successful grants since January - yea!

Competitive Grants and Contracts

First name	Last name / Dept	Project Name	Funder	Amount
Jonathan	Deenik / TPSS	SARE Professional Development Program Plan for Hawaii - Annual Budget Request	University of Wyoming	\$15,000
Michael	DuPonte / HNFAS	Korean Natural Farming" A New Waste Management System for Small Swine Farmers	Big Island RC&D Council, Inc	15,950
Carl	Evensen / NREM	Coordination and Implementation of Hawaii's Local Action Strategy to Address Land-based Pollution	DLNR-Division of Aquatic Resources	47,000
Chennat	Gopalakrishnan / NREM	Journal of Natural Resources Policy Research	University of Hawaii Foundation	5,000
Harold	Keyser / Maui	Evaluation of Jatropha as a Biofuel Crop in Maui County	Maui Office of Economic Development	10,000
Harold	Keyser / Maui	UH-CTAHR Extension and Research Projects in Maui County FY 2009	Maui Office of Economic Development	133,000
Kinoshita	Charles / Admin	Island of Hawaii Wood Resource Assessment for HELCO	Black and Veatch	8,000
James	Leary / PEPS	Reducing Colonization of <i>Schoenoplectus californicus</i> (California bulrush) for Native and Migratory Birds	U.S. Fish and Wildlife Service / Department of Interior	5,959
Tomoaki	Miura / NREM	GIS Assessment of Forest Conditions and Long Term Resource Strategy	Hawaii-Department of Land and Natural Resources	9,067
Rachel	Novotny / HNFAS	Cardiovascular Research Network	Kaiser Permanente - HI	14,843
Rachel	Novotny / HNFAS	Pacific Kids DASH for Health (PacDash)	Kaiser Permanente - HI	25,581
Richard	Ogoshi / TPSS	Customizing Biodiesel Derived from Tropical Trees	Oregon State University	150,000
Sylvia	Yuen / COF	State Prevention Framework State Incentive Grant Evaluation	Hawaii-Department of Health	299,980
Sylvia	Yuen / COF	2008 Hawaii Kids Count Plan Guidelines	Annie E. Casey Foundation	75,000
14 grants for a total of:				\$814,380
FY 2009 YTD				132 \$16,345,426
FY 2008 Total				114 \$11,101,686
FY 2009 YTD	Competitive Grants			96 \$10,646,842
FY 2009 YTD	Earmark-Funded Grants			47 \$5,698,584

Faculty publications

Jim Brewbaker (TPSS)

Brewbaker, J. L. 2009. Registration of nine maize populations resistant to tropical diseases. *Journal of Plant Registrations* 3:10-14.

Ken Grace (PEPS)

Gentz, M. C. and Grace, J. K. 2009. The response and recovery of the Formosan subterranean termite (*Coptotermes formosanus* Shiraki) from sublethal boron exposures. *International Journal of Pest Management* 55: 63-67.

John Griffis (TPSS)

Griffis, Jr., J.L., T.G. McDonald, V.E. Smith, and M.M. Manners. "Eugenia uniflora – A Nutritious, Easy-To-Grow Fruit for the Tropics" p. 277-284 (& cover photo) In: Jaenicke H., Ganry J., Höschle-Zeledon I. and Kahane R. (eds.). 2009. *Underutilized Plants for Food, Nutrition, Income and Sustainable Development*. Proceedings of International Symposium held in Arusha, Tanzania, 3-7 March 2008. Acta Hort 806. ISHS. Leuven, Belgium. 739 pp.

C.N. Lee (HNFAS)

Gebremedhin, K.G., P.E. Hillman, C.N. Lee, R.J. Collier, S.T Willard, J. Arthington, and T.M. Brown-Brandl. 2009. Sweating rates of dairy cows and beef heifers in hot conditions. *Transactions of ASABE* 51(6): 2167-2178.

Christopher Lepczyk (NREM)

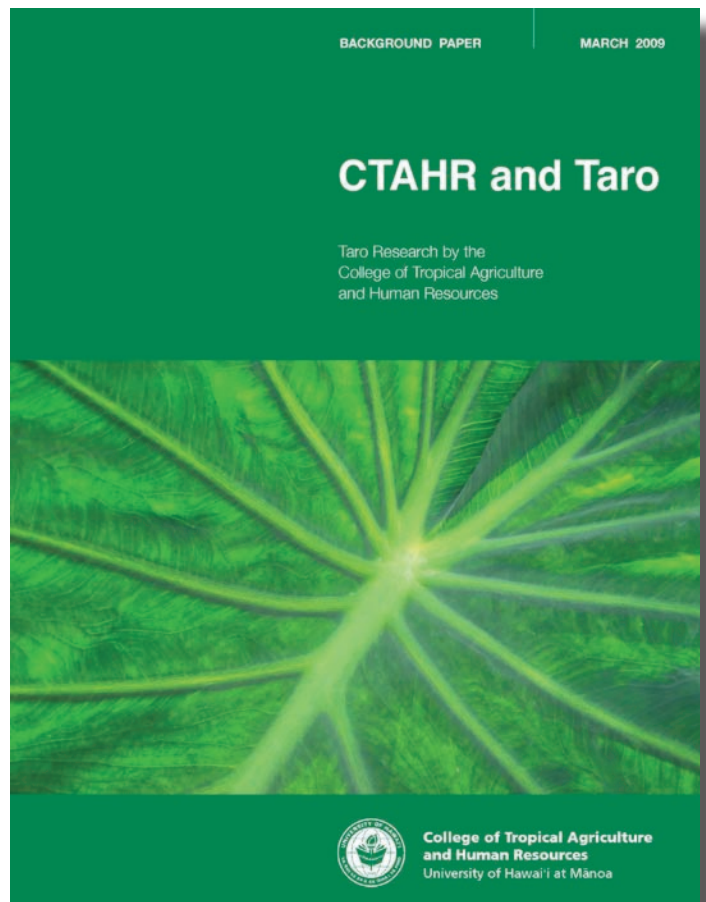
Christopher A. Lepczyk. February 23 2009, posting date. Biodiversity Responses across a Gradient of Human Influence. Teaching Issues and > Experiments in Ecology, Vol. 6: Experiment #4 [http://tiee.ecoed.net/vol/v6/experiment/biodiversity_responses/abstract.html].

Genet, K.S., C.A. Lepczyk, R.A. Christoffel, L.G. Sargent, and T.M. Burton. 2008. Using volunteer monitoring programs for anuran conservation along a rural-urban gradient in Southern Michigan, USA. pgs 565-574 in J.C. Mitchell, R.E. Jung, and B. Bartholomew (eds.) *Urban Herpetology. Society for the Study of Amphibians and Reptiles*, Salt Lake City, UT.

Russell Messing (PEPS)

Messing, R. H., S. Noser & J. Hunkeler. 2009. Using host plant relationships to help determine origins of the invasive Erythrina gall wasp, *Quadrastichus erythrinae* Kim (Hymenoptera: Eulophidae). *Biological Invasions* (online first): DOI 10.1007/s10530-008-9379-y.

Messing, R. H. 2009. Classical biological control in a new regulatory environment. In: *Proceedings of Third International Symposium on Biological Control of Arthropods*, Christchurch, New Zealand, M. Hoddle, ed.



Over the past century, personnel associated with the UH College of Tropical Agriculture and Human Resources (CTAHR) and its predecessor institutions have done many types of research with taro (*Colocasia esculenta*). Efforts have included work on:

- disease avoidance through good agricultural practices
- yield improvement through better soil and plant nutrient management
- control of pests including weeds, insects, nematodes, and plant disease pathogens
- mechanization of planting, harvesting, and processing
- postharvest handling practices
- food product processing methods
- genetic studies and breeding to develop new varieties.

Publications resulting from these many and diverse efforts are listed in a bibliography at the end of this report. The working paper is published by the [CTAHR Office of Communication Services](#) and will be available from their office or [on-line](#).