

# CTAHR RESEARCH NEWS

April 2008  
Volume 4, Issue 4



Mark Thorne talking with ranchers on pasture management issues at his grazing and livestock management academy.

**Range and  
pasture  
management**

**Calabash  
overflows with  
information**

**CTAHR Student  
Research  
Symposium**

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# From the Associate Dean and Associate Director for Research

**B**eef cattle ranks sixth among the top twenty commodities in Hawaii agriculture. Production value was more than \$26 million in 2006: a 17% increase over 2005. Increased feed and transportation costs continue to challenge our livestock industries. As a marketing alternative to shipping calves out of state, there is increased interest in grass-fed beef. Dean Hashimoto recognized the importance of this industry, and invested precious resources to launch CTAHR's Beef Initiative five years ago.

Under the leadership of Glen Fukumoto, the Beef Initiative team has made great progress in providing research and outreach to our local ranchers, including producing grass-fed beef. Dr. Mark Thorne, our range extension specialist in the Human Nutrition, Food and Animal Science department, is a member of the Beef Initiative team and shares his story on our cover this month. Mark has worked tirelessly with ranchers on all four islands to improve their forage quality and productivity: prerequisites for a successful feeding program – without importing grains – while keeping cattle local. This program is another testimony for integrated and multidisciplinary approaches that help our stakeholders. Mark is among the new crop of young faculty who plays a pivotal role in moving CTAHR programs up to the next level. We are very proud to have Mark as a member of CTAHR ohana!

The staff turnover in the fiscal office has created challenges for all of us in the past year. Chronic work overload is one of the major causes of this situation. With the addition of two more fiscal APT positions we will be able to finally fix the problem. We are pleased to welcome

Shirley Akiyoshi to the CTAHR fiscal office, and look forward to the filling of the other two positions. The additional staff will drastically improve CTAHR's ability to provide better service in grants and contracts related issues.

Have you read *The Omnivores Dilemma* by Michael Pollan, which covers the topic of agriculture and food? I was given this book to read two months ago and found it fascinating and thought provoking, and it was recommended on three different occasions in the last month alone. Interestingly, Chancellor Hinshaw announced the launching of the "Manoa Read" project earlier this week, and I thought about recommending this book. For those who have read Michael Pollan's book, do you think we should recommend this book to be read first by the whole campus community to celebrate our centennial? I look forward to your comments.

Finally, Doug Vincent provides another edition of the "Research Calabash," and an update on taro moratorium issue. We also feature a story on the CTAHR Research Symposium. More grants received, papers published, and funding opportunities are listed for your perusal. Please keep sending your newsworthy items to me as they are available. Don't be shy sharing your thoughts with us! Happy reading!



C.Y. Hu  
Associate Dean  
and Associate  
Director for  
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# CTAHR Range and Pasture Management Program: Assisting Hawaii's Livestock Producers with Sustainable Management Practices

By Mark S. Thorne  
Associate Range Extension Specialist  
Department of Human Nutrition, Food and Animal Sciences



Matt Stevenson, John Powley, Harold Keyser, Jonathan Deenik, Mark Thorne, Tomoaki Muira, and Glen Fukumoto - cowboy scientists.

Livestock production has been a constant, consistent, and valuable agricultural industry in Hawaii since the mid-1800's. Unlike other agricultural industries in the state that have seen significant reductions in production or have disappeared altogether, the livestock industry remains viable and has the greatest potential to expand and continue to contribute to Hawaii's economy. However, there are some indications that the industry is not as vibrant as it once was or could be. The statewide total number of cattle operations, for example, has declined from 900 to just over 800 units over the past ten years. At the

same time, total cattle sales have declined by over \$10 million. Today, locally raised cattle account for about 10% of the total beef marketed in the state: a decline of 20% since 1986, which is primarily due to the unique constraints that face producers in the state.

These constraints include such things as high shipping and feed costs, lack of sufficient supporting infrastructure for the industry and a limited, dwindling land base as a result of development. To keep production costs low, Hawaii livestock producers typically sell and ship animals at lower weights than their mainland counterparts. Additionally, because of



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## Introduction

The CTAHR Beef Initiative is a major endeavor and commitment of the University of Hawai'i at Manoa's College of Tropical Agriculture and Human Resources to partner with the Hawai'i Beef Industry stimulating growth, economic diversification, and environmental sustainability for agriculture in the state. The initiative is inspired by Dean Andrew Hashimoto's belief that the beef industry will continue to be a leader for the vision of agriculture in Hawai'i and remain an important contributor to diversified agriculture, the state's economy, and Hawai'i's cultural heritage.



The CTAHR Beef Initiative website: <http://www.ctahr.hawaii.edu/paniolo/>.

high feed costs and the small number and low capacity of feedlot, slaughter and packing facilities, stocker cattle operations have generally not been profitable on the islands. Lastly, high land prices have placed a constant pressure to convert land from agricultural uses to urban uses, resulting in less land available for livestock production.

The foundation of any livestock enterprise is the land and the forage it produces. The quantity and quality of the forage the land produces is determined by many factors including climate, soil, varieties of plant species present and usage. While producers cannot change the climate or soil on their land – nor can they change the impact of past land management practices – they can influence the variety of forage species present and the future condition of their range or pasture system through their own management practices. Poor management practices lead to the degradation of range and pasture condition, characterized by declining soil fertility and quantity and quality of forage produced, and increased presence of weedy plants.

On the other hand, good management practices will maintain or improve range and pasture condition, which is characterized by stable soils that are not subject to excessive erosion; maximized forage quantity and

quality; and a low presence of weedy plants. Hawaii has a tremendous variety of range and pasture systems, each with a different array of forages, soils, climatic conditions, and histories of use. Each system varies in its response to management practices and its resiliency to degradation. Proper management of these complex systems is as much an art as it is a science. The producer must have not only a sound understanding of grazing management principles and practices (science), but also a good feel for the land that they manage and how it will respond under a given set of management choices (art).

As part of the **CTAHR Beef Initiative Project**, my range and pasture management program integrates research and extension activities focused on investigating the complexities and dynamics of Hawaii's range and pasture systems and providing information and assistance to Hawaii's livestock producers and county, state, and federal land management personnel on the application of management practices. The Beef Initiative is a multidisciplinary program started in 2004, and led by a collaboration of extension agents (**Glen Fukumoto, Lincoln Ching, John Powley, Mike DuPonte**), specialists (**Drs. Linda Cox, C.N. Lee**, and myself), researchers (**Drs. Yong S. Kim, Jinzeng Yang**)

and administrators (**Drs. C.Y. Hu, Wayne Nishijima**).

Program areas within the Beef Initiative Program include economics and marketing; pastoral systems; genetics and DNA technology; and meat science and technology. Capitalizing on the base funding provided by CTAHR, the Beef Initiative team has secured an additional \$1.2 million in 23 separate grants over the past four years. The program has also generated 21 CTAHR publications, 7 national abstracts, and three peer-reviewed journal publications. A full listing of the accomplishments for the Beef Initiative is being compiled into our annual report and can also be viewed at our website: <http://www.ctahr.hawaii.edu/paniolo/>.

My role with the Beef Initiative Team has been to provide leadership in the Pastoral Systems Program Area, where I am responsible for the development and coordination of research and extension projects that address critical issues in range and pasture management in Hawaii. The current focus of the Pastoral Systems Program Area is on: 1) improvement of range and pasture systems for sustainable livestock production; 2) weed management on range and pasturelands; and 3) ecology of tropical range and pasture communities.

### **Improvement of range and pasture systems for sustainable livestock production**

With the significant reduction of the sugarcane and pineapple industries in Hawaii, there is a unique

opportunity for the livestock industry to expand. Many ranchers are now leasing or purchasing former sugarcane and pineapple lands on the islands of Kauai, Maui and Hawaii. Because of the intensity of the agricultural practices used in growing sugarcane and pineapple, the soils of these lands are now infertile and have very low soil pH levels. Low soil fertility limits the growth of desirable grasses and legumes in the pasture, encourages invasion and the competitiveness of undesirable weeds, results in low forage quality, low rates of gain per animal, and generally limits the long-term sustainability of the grazing system. Under these conditions, long-term, sustainable production from these lands is not likely. Producers need appropriate and economically viable recommendations to be successful as they convert these lands into livestock pasture.

To meet this need Drs. **Jonathan Deenik** (TPSS), **Harold Keyser** (Maui County), **Linda Cox** (NREM), and I secured funding through the TSTAR program to conduct large-scale field experiments combining different rates of lime, N fertilizer and legume inter-seeding into trial plots on former sugarcane land on Kauai and Hawaii. Early results from this project have shown that light applications of urea (150#/acre) can increase forage production two-fold over unfertilized areas. The increased grazing capacity realized from this low fertilization rate more than pays for the cost of application. Several producers have begun to fertilize



Mark Thorne (left) talking with ranchers on pasture management issues at his grazing and livestock management academy.

their pastures, recognizing the economic benefit of the practice. This project has been successful because of the great support and assistance from the county livestock extension agents **Glen Fukumoto** (Hawaii County), **Lincoln Ching** (Kauai County), **John Powley** (Maui County) and **Mike Duponte** (Hawaii County); farm managers **John Gordines** (Kauai), **David Oka** (Maui), and **Milton Yamasaki** (Hawaii); and Range Management Research Technician **Matt Stevenson** (Hawaii).

### Weed Management on Range and Pasturelands

A multitude of invasive weeds have been accidentally and intentionally introduced (as ornamentals) into Hawaii and now infest thousands of acres of range and pasturelands. While some species have been in Hawaii for decades, others have only recently been introduced. Some of the invasive weeds that threaten the sustainability of livestock production in the state include grasses (fountain grass, bushy-beard grass, and broomsedge); forbs (fireweed); and shrubs and trees (lantana, gorse, Christmas berry). The ecological and economic impacts of these weeds on range and pasture lands and livestock production in Hawaii is significant.

Once established, these weeds compete with the desirable forages for space, water and nutrients in the pasture.

A pasture heavily infested with weeds provides less forage with lower quality than a pasture without weeds, so our research and extension efforts are focused on the development of Integrated Weed Management techniques (i.e. employing combinations of multi-species grazing, herbicides, prescription burning, etc.) and planning. My work has thus far included field trials, workshops and large research projects focused on several key weed species. For example, bushy-beard grass is a particularly troublesome invasive grass on Kauai as it can compete with guineagrass in former sugarcane lands. **Lincoln Ching** and I worked with several producers on Kauai to conduct a series of field trials to find the best combination weed management practices to control bushy beardgrass.

Another highly invasive weed in Hawaii range and pasturelands is fireweed. Coordination with Drs. **Jonathan Deenik** (TPSS), **Tomoaki Miura** (NREM), **Harold Keyser**, **Dale Gardner** and **Jim Phister** (USDA-ARS Poisonous Plants Laboratory, Utah); and county extension agents **John Powley** and **Glen**



Mark Thorne (center), Jonathan Deenik (right), Tomoaki Miura (close left), and Matt Stevenson (back left) during a survey of a rangeland plant community.



Mark Thorne (right) and Matt Stevenson identifying a species of grass during a survey of rangelands on the Big Island.

### Journals

- [Journal of Range Management: Archives 1948-2003](#)
- [Rangelands \(journal\): Archives 1979-2003](#)

**Society for Range Management**

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### Hawaii Rangelands Partners

- [College of Tropical Agriculture and Human Resources](#)
- [Office of Cooperative Extension](#)
- [University of Hawaii at Manoa Library](#)
- [Rangelands West](#)

## HAWAII RANGELANDS

### Hawaii Rangelands Topics

- [Introduction to Hawaii Rangelands](#)
- [Rangeland Issues in Hawaii](#)
- [Hawaii Climate and Weather](#)
- [Economics and Marketing Hawaii Range Products](#)
- [Range Education](#)
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### Highlights

- [Hawaii Forages Website](#)
- [Hawaii Soil Survey](#)
- [Hawaii Statewide GIS Program](#)
- [Paniolo Hall of Fame](#)
- [CTAHR Beef Initiative](#)

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For more information on rangelands, search the Rangelands West database

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[Ask Questions](#)  
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The Hawaii Rangelands website, a cooperative project with Eileen Herring of the UHM Library, puts science into action by connecting ranchers with science-based knowledge: <http://rangelands.manoa.hawaii.edu/>.

**Fukumoto** and **Matt Steveson**; have developed a research and educational outreach program to address this weed. Our early work on fireweed was designed to characterize the pyrrolizidine alkaloid (poisonous to cattle) content of the plant in different range and pasture systems in Hawaii and to document different methods of control, leading to a peer reviewed publication and an extension publication designed to provide producers with options for controlling fireweed in their pastures. One recommendation, the use of multi-species grazing, is being implemented by several producers on Maui and the Big Island. Currently, our research focuses on the characterizing the invasion ecology and population dynamics of fireweed and developing methods to detect and map fireweed populations using remote sensing.

### **Ecology of Tropical Range and Pasture Communities**

Sustainable livestock production is dependent on reliable forage resources that maintain animal health. However, the temporal and spatial variation in forage production in range and pasturelands makes effective grazing management decisions difficult. This variation is closely linked to the timing and amount of precipitation received. Often livestock producers make grazing management decisions based on past or average forage production levels with little or no certainty that a sufficient amount of precipitation will fall in time to produce what they are counting on.

To alleviate this uncertainty, models using Mean Annual Precipitation (MAP) and Annual Net Primary Production (ANPP) have been developed to help producers anticipate their available forage production for a given period. While globally derived MAP and ANPP functions are useful in developing a general understanding of the relationship between forage production and precipitation, they are of limited use for making management decisions in Hawaii because they are not locally derived. Regional MAP and ANPP functions have been developed for rangelands on the mainland, but none exist for sub-tropical and tropical regions like Hawaii. Cooperating with the USDA-NRCS, I have begun a three year project to collect MAP and ANPP data from 15 sites across the state. The data will be used to develop a predictive model that will help producers forecast forage production; determine suitable stocking rates, drought planning and mitigation; develop prescribed grazing standards; and plan range and pasture improvement projects.

### **Mark S. Thorne**

**Born:** Laramie, Wyoming

**Joined CTAHR:** 2003

**Education:** B.S. (1996) and M.S. (1998) in Rangeland Ecology from University of Wyoming; Ph.D. (2002) in Rangeland Ecophysiology from Colorado State University.



**Specialization:** Rangeland Ecology and Management

**Current Work:** Remediation of range and pasturelands, Ecology of fireweed in Hawaii, Modeling forage production dynamics across climatic gradients in Hawaii, grazing management for sustainable beef production in Hawaii

**Languages Spoken:** English

#### **Selected Grants**

Best Management Practices for the Remediation of Former Sugarcane and Pineapple Lands for Sustainable Livestock Production in Hawaii; *USDA-T-STAR* - \$262,013.

Development of Best Management Practices for Control of Madagascar Fireweed (*Senecio madagascariensis* Poiret) in Hawaii; *Hawaii Farm Bureau Federation* - \$40,000; *Maui County* - \$34,056.

Hawaii Rainfall and Forage Production Index Project; *USDA-NRCS* - \$73,334.

#### **Selected Publications**

Buck, K., J.R. Carpenter, **M.S. Thorne**. 2007. In situ rates of insoluble Macro-mineral release from alfalfa and tropical grasses, and relationships with dry matter disappearance. *Proceedings, Western Section, American Society of Animal Science*. 58:378-382.

Gardner, D.R., **M.S. Thorne**, R.J. Molyneux, J.A. Pfister, and A.A. Seawright. 2006. Pyrrolizidine alkaloids in *Senecio madagascariensis* from Australia and Hawaii and assessment of possible livestock poisoning. *Biochemical Systematics and Ecology* 34:736-744.

**Thorne, M.S.**, M.J. Trlica, W.C. Leininger, R.D. Child, and D.A. Klein. 2005. Soil CO<sub>2</sub> efflux response to soil loss on 2 rangeland ecosystems. *Rangeland Ecology and Management* 58:27-34.

Since joining CTAHR in 2003, I have had the good fortune to be able to work with a number of individuals from various disciplines, all of whom have helped make my program a success. I look forward to continuing my research and extension activities at CTAHR to help the livestock industry in the State.



# CTAHR Student Research Symposium celebrates its 20th year

By Doug Vincent  
Special Program Director for Grants and Contracts

Where in Hawaii can you hear or read about scientific research as diverse as a “pilot study of cultural difference in product preference for scented textiles” (Abstract #61), “a novel process for pollutant removal from domestic wastewater” (Abstract #50) and “an analysis of spatial and temporal trends of cloud cover (clear sky) in Hawaii with Terra MODIS satellite sensor” (Abstract #1)? The CTAHR Student Research Symposium, of course. And those were just three of the 28 undergraduate presentations!!

On Friday and Saturday, April 11-12, 2008, the 20<sup>th</sup> Annual CTAHR Student Research Symposium hosted two days of integrated, interdisciplinary and innovative scientific research. Here are the statistics:

- Over 90 student posters and oral presentations were given in our Agricultural Sciences Building.
- 45 posters (12 undergraduates, 14 M.S. students, and 19 Ph.D. students) were hung.

- 16 undergraduate, 15 masters, and 16 Ph.D oral presentations were given during three simultaneous sessions on Saturday alone.

Scientific research is useless if it isn't shared with the broader scientific community, but travel to national meetings is costly and Hawaii students often miss out on these opportunities and experience because of the expense. Presentation of research results is a critical skill to be learned by students as part of their education.

Back in 1986, I recognized the lack of this experience for our students, yet I barely had enough funding to get to a national meeting myself, much less cover the costs for a graduate student. The idea was shared with the CTAHR administration, at the time, Associate Dean for Academic Affairs **Sylvia Yuen**. A committee was formed and four faculty members developed the first CTAHR Student Research Symposium. We dared not call it “annual” because we didn't know whether or not it would work. The first committee included Sylvia

Yuen, **Marshall Johnson** (formerly of Entomology), **Chuck Murdoch** of Horticulture (now retired), **Dick Green** of Agronomy and Soil Sciences (also retired) and me. It was held in the Campus Center meeting rooms on the third floor. It wasn't the best venue: often the amplified microphone would bleed



M.S. student Minh Noorda-Nguyen, MBBE, addresses questions about her study on the molecular characterization of disease resistance in papaya.



CTAHR Academic and Student Affairs Staff ready for the Student Research Symposium.

into the sound system of the neighboring room and we often had to compete with lunch time rock concerts. Once we started having posters, we put them on the walls outside the student lounge all the while competing for space. We didn't have computer-driven PowerPoint presentations and relied upon slide projectors and carousels which often got mixed up. One year, a nervous student walked out after his presentation with a carousel containing the next speaker's slides. Before we could retrieve them, the next speaker was up and had to "wing" it. If you don't believe it, ask J.B. Friday of NREM – it was his slides that disappeared.

The first Student Research Symposium had 34 oral presentations: two undergraduates, 11 M.S. and 21 Ph.D. students. The first Ph.D. winner, Henrik Albert, earned his Ph.D. in Plant Molecular Physiology and became a Research Plant Physiologist in the USDA ARS Pacific Basin Agricultural Research Center, until recently joining Pioneer Seed in California. The M.S. winner, Mike Moser, earned his M.S. in Animal Sciences and is currently the Director of the Upward Bound Program at Leeward Community College. We tried to track down the whereabouts of the other participants in the Symposium and much to our delight; many of them hold research or faculty positions. You can find these individuals conducting research or teaching or outreach in foreign countries like New Zealand, Pakistan, China, Australia, Taiwan, Thailand and the Philippines; and nationally in Massachusetts, Florida (3), Arizona (2), Iowa, Mississippi, California, and Oregon.

But not everyone has left Hawaii: two are with USDA ARS, one is with USDA APHIS, another at the Hawaii Agricultural Research Center. One student landed a faculty position at Leeward Community College, another is

a faculty member at Kapiolani Community College, and a third is a researcher at the National Tropical Botanical Garden on Kauai. Two completed their doctorates and stayed on the faculty at UH-M – one in CTAHR and another in the John A. Burns School of Medicine.

Did the CTAHR Student Research Symposium contribute to their success? More likely these students were highly motivated anyway and willing to take the chance on this new untested opportunity. This year's Symposium was also chock full of highly motivated, success-oriented students willing to put their research "out there" for all of us to see and judge. After 20 years, the Symposium has evolved to the wonderful and important event in CTAHR's annual calendar. But this doesn't happen by magic. Poster and oral presentations will be judged by 74 CTAHR faculty and staff. Students will be serving as room and computer monitors. The Symposium Coordinating Committee, led by the Associate Dean for Academic Affairs, Charly Kinoshita and the staff of the Office of Academic and Student Affairs, along with Program Coordinator **Traci Sylva** (MBBE); Chief Judge **Anne Alvarez** (PEPS); Judging Coordinator **Dulal Borthakur** (MBBE), Equipment/Facilities Coordinator **Wayne Toma** (HNFAS), Registration and Refreshment Coordinators, **Allene Chun** (Acad), **Susan Nakamura** (Acad) and **Beverly Pang** (Acad) have all worked very hard to bring this event into reality. The rest of the committee includes **Dick Bowen** (NREM), **Jonathan Deenik** (TPSS), **Vera Kadomoto** (Acad), **Erica Kubota**

(Acad), **Thomas Lim** (PMSO), **Lori Yancura** (FCS) and **Halina Zaleski** (HNFAS). *Mahalo to them all.* Also thanks are in order to our Ag Sciences “hosts” - HNFAS faculty and staff, **Steve Spielman**, **Joannie**

**Dobbs**, **Laurel Leslie** and **Mark Segobiano**. After 20 years, the CTAHR Student Research Symposium has grown to be one of the special events in our College. *Good luck for the next 20 years!*

**Development of an *Agrobacterium*-mediated transformation protocol for the recalcitrant tree-legume *Leucaena leucocephala*, using immature zygotic embryos**  
 Sandro Jube\* and Dulal Borthakur  
 Department of Molecular Biosciences and Bioengineering, University of Hawaii at Manoa

**INTRODUCTION**  
*Leucaena leucocephala* (leucaena) is an excellent animal fodder because it meets the crucial four P's for forage food: Palatability, Resistance, Productivity and Protein content. The use of leucaena as a fodder is restricted due to the presence of the toxic compound mimosine. Improvements in the nutritional status as well as other agronomic traits of leucaena will require genetic engineering.

**OBJECTIVE**  
 The objective of this research was to develop an *in vitro* regeneration and transformation protocol for leucaena.

**MATERIALS AND METHODS**  
***In vitro* propagation**  
 Seven different explants were tested for their regeneration capacity. Four out of seven explants were able to produce shoots (Fig. 1).

**Binary vector**  
 Three different *Agrobacterium tumefaciens* strains were tested: EHA105, LBA4404 and C58C1. The strains were carrying the plant binary vector pCambia3201 (Fig. 2).

**RESULTS**  
 Four independently transformed leucaena plants were obtained from immature zygotic embryos co-cultivated with *Agrobacterium* strain C58C1 (Fig. 3).

**Table 2. Effects of growth hormones on root formation**

Growth regulator (mg l <sup>-1</sup> )	Root frequency (%)	Roots/shoot
IBA		
1.00	45.00 ± 7.03 <sup>a</sup>	1.14 ± 0.08 <sup>a</sup>
2.00	96.50 ± 9.19 <sup>b</sup>	2.13 ± 0.06 <sup>b</sup>
3.00	45.00 ± 11.78 <sup>a</sup>	2.17 ± 0.15 <sup>a</sup>
Kinetin		
0.25	30.00 ± 4.67 <sup>a</sup>	1.84 ± 0.06 <sup>a</sup>
0.50	71.00 ± 2.33 <sup>b</sup>	2.05 ± 0.08 <sup>b</sup>
0.10	51.70 ± 7.07 <sup>a</sup>	1.60 ± 0.05 <sup>a</sup>
IBA + Kinetin		
2.00 + 0.25	96.65 ± 9.43 <sup>b</sup>	2.11 ± 0.02 <sup>b</sup>
2.00 + 0.50	70.00 ± 4.68 <sup>a</sup>	1.88 ± 0.03 <sup>a</sup>
2.00 + 0.10	81.65 ± 2.33 <sup>b</sup>	2.80 ± 0.11 <sup>b</sup>

**Fig. 4. Molecular analyses of four transgenic leucaena plants expressing the bar gene (a) PCR (b) RT-PCR and (c) Western**

**Fig. 5. Verification of transgenic plants. (a) Southern blot (b) Fluorometric GUS activity and (c) Leaf herbicide-spraying assay**

**CONCLUSIONS**  
*In vitro* propagation and transformation of leucaena

The winning Ph.D. poster by Sandro Jube and Dulal Borthakur of MBBE.

**Importance of anthuriums**

- Manual flower and nursery products – \$130.7 million in 2008
- Cut flowers valued at \$14.1 million
- \$5.5 billion from anthurium
- Anthurium blight – *Xanthomonas axonopodis* pv. *dieffenbachiae* (Xad)

Peter Toves, an M.S. student in TPSS presents his data on biocontrol of anthurium.



MBBE's Henry Cheng's winning Undergraduate Poster.



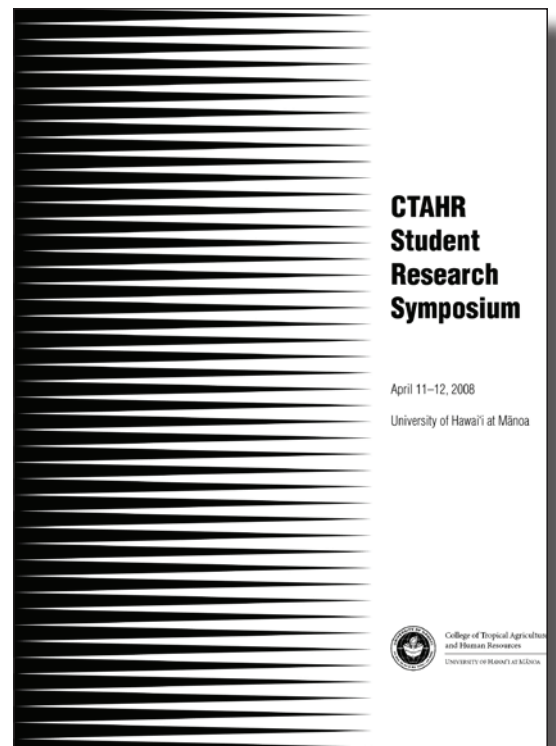
Chef Mark Segobiano and Associate Dean Charly Kinoshita discuss the menu.



CTAHR Student Research Symposium Judges preparing for the difficult task ahead – finding the best presentation.



Lively discussions over the break. "Now which one was best one?"



Read the program here: <http://www.ctahr.hawaii.edu/symposium/downloads/2008%20SRS%20Program.pdf>

# Buy your CTAHR centennial book early and save!

*Only 1500 copies available for sale!*

On behalf of the CTAHR Centennial Committee we are pleased to announce that the book, "Hawai'i's College of Tropical Agriculture and Human Resources: Celebrating the First 100 Years" is nearly completed and will arrive in May. In the spirit of celebrating CTAHR's first century of service and the beginning of its second century, we offer this limited edition book at a special advance sale price of \$25.00 plus shipping and handling until April 30, 2008 (regular price is \$30 plus s/h). You can avoid shipping and handling charges by picking up your book from Gilmore Hall 119, when it arrives.

This beautifully designed book, which is by far the most comprehensive collection of the college's history, is about 300 pages long and is fully illustrated with over 670 photos from various archives and private collections. It will be hard bound and printed in full color. Please use the order form at [http://www.ctahr.hawaii.edu/adv\\_order.pdf](http://www.ctahr.hawaii.edu/adv_order.pdf) and take advantage of the special advance sale offer before it expires!



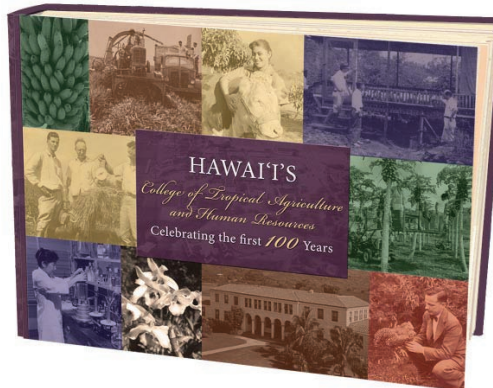
*New book commemorates the centennial of the University of Hawai'i's founding college!*

## Hawai'i's College of Tropical Agriculture and Human Resources Celebrating the First 100 Years

**\$25\*** Special advance sale price!

\*Offer ends 4/30/08  
Regular price \$30

The establishment of Hawai'i's Agricultural Experiment Station in 1901, the College of Agriculture and Mechanic Arts in 1907, and the Extension Service in 1928 brought to the islands the land grant system's tri-partite mission of research, education, and extension to serve Hawai'i's people. As the founding college of the University of Hawai'i, we take great pride in the accomplishments of the many hundreds of employees and many thousands of undergraduate and graduate students and extension learners who have been affiliated with our college. This centennial book captures and celebrates some of the energy and accomplishments of the people involved in CTAHR's first century. We encourage you to buy this limited-edition book for yourself and as a gift for family members or friends.



Approximately 300 pages, 12 x 9", hard cover, color

### Advance Sale Order Form

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# The research calabash

By Doug Vincent  
Special Program Director for Grants and Contracts

## CTAHR Funding Opportunities

The CTAHR Offices of Research and Cooperative Extension have recently called for proposals and plans of work from CTAHR Research and Extension Faculty. Proposals are being accepted for USDA ARS Specific Cooperative Agreements and are due **Monday, May 12, 2008**. Go here to download the RFP: [www.ctahr.hawaii.edu/vincent/ARS\\_SCA\\_RFP\\_FY\\_2008.doc](http://www.ctahr.hawaii.edu/vincent/ARS_SCA_RFP_FY_2008.doc). The CTAHR Office of Extension has released its request for new Extension Plans of Work, due **Friday, May 16, 2008**. Find information about completing new Plans of Work here: [www.ctahr.hawaii.edu/vincent/Ext\\_POW\\_Request.doc](http://www.ctahr.hawaii.edu/vincent/Ext_POW_Request.doc). For new Hatch, Hatch-Integrated, McIntire-Stennis projects which are also due, **Friday, May 16, 2008**, download the formula fund RFPs: [www.ctahr.hawaii.edu/vincent/Formula\\_fund\\_RFP\\_FY\\_2009\\_final.doc](http://www.ctahr.hawaii.edu/vincent/Formula_fund_RFP_FY_2009_final.doc).

## Hawaii County Agriculture Grants due April 30, 2008

Hawaii County Agriculture Grants are due to the Hawaii County Office by 4:30 pm on April 30, 2008. For more information and to download the RFP, go here: <http://co.hawaii.hi.us/rd/sfa/Final%20Agriculture%20Program%20Solicitation%20for%20Proposals%200708.pdf>. Reminder: all proposals must go through the UH Office of Research Services prior to submission to Hawaii County.

## New TA from Graduate Division

Through an agreement with the Vice Chancellor for Research and Graduate Education **Gary Ostrander**, all G-funded Teaching Assistant (TA) positions at step 1 will be moved to step 3 and all G-funded TA's at steps 2 to 13 will receive a one-step increase, effective Fall Semester, 2008. In addition, **all new TA's will be appointed to full time (0.5 FTE) positions at step 3 or higher**. Part-time appointments (< 0.5 FTE) will require prior approval from Graduate Division. Graduate Division is also recommending that all new Research Assistants (RA's) be appointed at step 3 or higher. To download Graduate Division Dean **Peter Garrod's** April 14,

2008 memo on this subject, go here: [http://www.ctahr.hawaii.edu/vincent/TA\\_supplements\\_4\\_14\\_08.pdf](http://www.ctahr.hawaii.edu/vincent/TA_supplements_4_14_08.pdf). To find current salary steps for graduate assistants go here (and scroll down): <http://www.hawaii.edu/graduatestudies/financial/html/financial.htm>.

## New ORS Form 5 – Please use it now.

The UH Office of Research Services has made changes to its "Proposal & Contract Coordination Record "ORS form 5" to enable proposals or contracts with multiple Principal Investigators on the same project. Go the ORS web site to download the new form, instructions and other information here: [http://www.hawaii.edu/ors/filecabinet\\_forms.html](http://www.hawaii.edu/ors/filecabinet_forms.html).

To accommodate multiple principal investigators, a new form "ORS form 5c" is to be included whenever; multiple principal investigators on a grant proposal or contract on the same project are requested. New forms and instructions have been developed and deployed at the ORS web site. Please begin to use the new ORS Form 5 immediately. **After April 15, 2008**, the Feb '08 version of the ORS Form 5 will be required.

## ORS Helpline

As you prepare proposals for electronic submission, the Office of Research Services has a **helpline** for assistance in submitting proposals via Grants.gov. The help line is available M-F from 8 am – 5 pm. The phone number is 808-956-5198 or e-mail [erahelpdesk@ors.hawaii.edu](mailto:erahelpdesk@ors.hawaii.edu).

## ORS Listening Session – April 21, 2008, 10:30 am

**Ms. Yaa-Yin Fong**, Director of UH Office of Research Services, will meet with CTAHR Faculty and Staff on Monday, **April 21, 2008, at 10:30 am**, in Gilmore 212. Polycom will be available but make your request by Friday, April 18, 2008 to Jackie Tani at [research@hawaii.edu](mailto:research@hawaii.edu) so that arrangements can be made.

## Hawaii Book Project – first meeting, April 21, 2008

**Chancellor Virginia Hinshaw** has announced the Manoa Book Project, in response to the desire for a shared experience that intersects student, faculty and staff interests. The first meeting of the Manoa Book Project will be held on **Monday,**

**April 21, 2008, 1:30 pm in Hawaii Hall 309.** To learn more about the Manoa Book Project and to download a form to nominate a book, go here: <http://manoa.hawaii.edu/manoabookproject/>.

#### **Clickers in the Classroom – Vendor Demonstration – April 21, 2008**

If you are interested in the use of this real-time interactive technology in the classroom, we encourage you to attend. On **Monday, April 21, 2008, 2:30pm**, in the Architecture Auditorium, three “clicker” vendors will be making presentation. A follow-up meeting will be held on **May 1, 2008, 2:30 pm, in GLC 412**, to discuss the presentations and make recommendations for a common technology to go out for bid. If you currently use this technology or are interested in this using it in the classroom, please attend these meetings.

#### **UH-Manoa Town Meeting – April 30, 2008**

On **April 30, 2008**, there will be a UH-Manoa Town Hall Meeting from **8:30 am – 12:00 noon**, in the **Campus Center Ballroom**. Topics to be discussed include: helping to define our Manoa identity; facilities management planning at UHM; creating ways to increase student success; resolving student and faculty housing issues; and engaging with our Manoa, Hawaii and global communities. If you are interested in charting the future for UH-Manoa, your input and attendance is requested.

#### **Biosecurity Training Offered – May 12, 14, 2008**

**Dr. Louise Barden** from the DHHS Centers for Disease Control and Prevention will be holding two training sessions for those whose work involves biosecurity. On **Monday, May 12, 2008 from 2:00 pm to 5:00 pm**, Dr. Barden will hold two sessions – one on “Laboratory Biosecurity” and a second on “Crisis and High Stakes Communication.” A second training workshop on “Biosafety with Risk Assessment” will be held on **Wednesday, May 14, 2008, 2:00 to 5:00 pm**, for those that work in Biosafety Level Two (BSL-2) and Level Three (BSL-3) laboratory facilities. The workshop will address biosafety issues in BSL-2 and BSL-3 labs, including principles of biosafety, operation of biological safety cabinets, how to conduct a biosafety risk assessment and approaches for risk mitigation. Both workshops will be held at the **John A. Burns School of Medicine, University of Hawaii Kaka’ako Waterfront Campus**, 651 Ilalo St. in the Medical Education Building. This training fulfills

annual or initial training requirements. For more information, contact the UH EHSO Biosafety Office at [biosafe@hawaii.edu](mailto:biosafe@hawaii.edu).

#### **Western Sustainable Agriculture Research and Education Grants RFPs now open.**

The USDA CSREES regional program, Western Sustainable Agriculture Research and Education is now seeking proposals for its portfolio of funding opportunities. The Research and Education Grant pre-applications are due **June 13, 2008**. For more information about this program, go here: [http://wsare.usu.edu/grants/docs/RFPRE\\_RE.pdf](http://wsare.usu.edu/grants/docs/RFPRE_RE.pdf). For other opportunities, see the WSARE web site: <http://wsare.usu.edu/grants/>. Western SARE administrators, Phil Rasmussen and Jim Freeburn have produced an 11-minute, on-line video on the elements of a successful Western SARE proposal – go here to view it: <http://wsare.usu.edu/grants/?sub=wsv2>. For more information about Sustainable Agriculture in the West, see the WSARE web site: <http://wsare.usu.edu>.

#### **Grant Coaching Available Now**

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 specialist, **Sharee Pepper** at 956-8140 or by e-mail at [spepper@hawaii.edu](mailto:spepper@hawaii.edu).

## **Bernie Kratky honored at national conference**

**Dr. Bernie Kratky**, from the Department of Tropical Plant and Soil Sciences, was honored at the American Society for Plasticulture annual meeting in March 2008. Dr. Kratky's paper entitled "Growing Lettuce by a Float-Support Non-Circulating Hydroponic Method in Hawaii and Pennsylvania" won the Best Paper Award. Dr. Kratky's co-authors were two



CTAHR agricultural technicians – **Gaillane Maehira** and **Angel Magno** – and Drs. M.D. Orzolek and W.L. Lamont of Pennsylvania State University. To read the citation honoring Dr. Kratky, go here: <http://www.plasticulture.org/ASPCongress08/34thAwards.pdf>.

## **CTAHR leads at the Hawaii State Science and Engineering Fair**

Four CTAHR faculty and one CTAHR graduate student served in leadership roles at the 51<sup>st</sup> Hawaii State Science & Engineering Fair, held on March 31 – April 2, 2008. **Drs. Halina Zaleski** (HNFAS) and **Spencer Malecha** (HNFAS) served as Head Judges in the Animal Sciences/Microbiology Cellular & Molecular Biology in the Senior Research group. **Dr. Brent Sipes** (PEPS) was the Head Judge in the Senior Research Plant Sciences group. **Dr. Dian Dooley** (HNFAS) and **Ms. Anna Kosztowny**, (HNFAS graduate student), were Head Judges in the Biochemistry/Medicine and Health category in the Junior Research group. UH Regents **Drs. Marlene Hapai** and **Ramon de la Pena** served as celebrity judges. Dr. Hapai is a past CTAHR Dean for Academic and Student Affairs and Dr. de la Pena is a retired CTAHR faculty member. Other CTAHR judges were **Charly Kinoshita** (Admin), **Kent Kobayashi** (TPSS), **Soojin Jun** (HNFAS), **Yong Li** (HNFAS), **Josef Seifert** (PEPS), **Glenn Taniguchi** (PEPS), **Travis Idol** (NREM), **Mike Robotham** (NRCS, NREM), **Mele Fernandez** (HNFAS), and **Elisha Witt** (HNFAS). Thanks to all for giving up their time to help encourage Hawaii's next generation of scientists and engineers.

## **Western Rural Development Center names new Director**

The Western Rural Development Center has named a new Director. **Dr. Don Albrecht** accepted the position of Director and will assume full-time responsibilities on July 1, 2008, after a long career at Texas A&M University. Dr. Albrecht has published extensively on the issues confronting rural communities. The Western Rural Development Center contributes to improving the quality of life in the rural West as a "catalyst," a "convener" and as a "conduit." As a "catalyst," the Center initiates projects by bringing resources and people together to jump-start innovative concepts. Serving as a "convener," the Center brings eclectic groups of people together to explore issues, learn about one another's values and goals, and think creatively about how to shape the kind of West that we can proudly call home. To be a "conduit," the Center enhances the capacity of rural Western communities by supporting the creation of businesses and the development of desirable assets using a sustainable approach; supporting local cultures and creating the ability to seize emerging opportunities and solve problems. For more information about the Western Rural Development Center: [http://wrdc.usu.edu/html/about\\_wrdc/vision](http://wrdc.usu.edu/html/about_wrdc/vision).

## **Dates and Events – Mark Your Calendars Today**

### **CTAHR County Centennial Events – Saturday, April 19, 2008 (Kauai) and April 26, 2008 (Kamuela, Big Island).**

Two CTAHR offices will be hosting CTAHR Centennial Events. On Kauai, County Administrator Roy Yamakawa and Kauai CTAHR staff will be hosting a CTAHR Centennial event at the campus of Kauai Community College on Saturday, April 19, 2008 from 9:30 am – 3:00 pm. Contact the Kauai County Office at 808-274-3471 or go here for more information: [http://www.ctahr.hawaii.edu/vincent/CTAHR\\_Kauai\\_Centennial\\_flyer.pdf](http://www.ctahr.hawaii.edu/vincent/CTAHR_Kauai_Centennial_flyer.pdf).

CTAHR Hawaii County will celebrate the UH centennial with an Open House at the Mealani Agricultural Research Station in Waimea (Kamuela), on Saturday, April 26, 2008, from 9:00 am to 1:00 pm. For more information, contact 808-981-5199 or go here: <http://www.ctahr.hawaii.edu/vincent/Centennial-Open-House-Big-Island-send.pdf>.



### **CTAHR 20<sup>th</sup> Annual Awards Banquet – May 9, 2008**

Twenty years is a long time to have a sustaining event. From its humble beginnings (and “interesting” food) at the Campus Center Ballroom, the CTAHR Annual Awards Banquet has grown to become CTAHR’s premier event on our calendar. The **20<sup>th</sup> Annual Awards Banquet** will be held on **Friday, May 9, 2008** at the Hilton Hawaiian Village, Coral Ballroom. Deadline for registration is **April 23, 2008**. Please mark your calendar today and plan to attend the event where we honor our outstanding alumni, our strongest supporters, and faculty and staff awardees. Go here for more information: <http://www.ctahr.hawaii.edu/banquet/index.asp>.

### **UH-Manoa Graduation Celebration**

On Friday, **May 16, 2008** at Andrews Amphitheater, there will be a celebration for the 2008 graduating students. Doors open at 5:00 pm. Tickets are free for all students graduating in Spring or Summer 2008. Tickets for up to 4 guests per graduating student are \$5.00 and must be picked up in advance. RSVP by **May 2, 2008** to [uh100@hawaii.edu](mailto:uh100@hawaii.edu).

### **UH-Manoa Commencement – Sunday, May 18, 2008**

Undergraduate (9:00 am – 12:00 noon) and Advance Degree (3:00 pm – 5:00 pm) Commencement Ceremonies will be held on **Sunday, May 18, 2008**. Faculty members are requested to participate. Registration must be done by **May 12, 2008**. Academic regalia are now available. See the web site to register and for more information: <http://manoa.hawaii.edu/commencement/faculty.php>.

### **Statewide Agriculture Conference Scheduled for September 4, 2008.**

CTAHR, the Hawaii Farm Bureau, the Agricultural Leadership Foundation of Hawaii and the Hawaii Department of Agriculture will sponsor a state-wide agriculture conference on **Thursday, September 4, 2008**. “All Ag Day for Ag” will be held at the Hawaii Convention Center. Statewide commodity groups will be encouraged to meet on Friday, September 5, 2008. Mark your calendars today and stay tuned for more information. The web site is here: <http://www.agconference.org/>, but has not yet been updated for the 2008 Conference.

### **Western Sustainable Agriculture Research and Education Workshop in Kona, September, 23-24, 2008.**

The Outrigger Keahou Beach Resort will be the home of the USDA Western Regional Sustainable Agriculture Research and Education (SARE) workshop scheduled for **September 23-24, 2008**, on the Kona side of the Big Island. Mark your calendar today and stay tuned for more information.

### **Mealani’s “A Taste of the Hawaiian Range” – Friday, October 3, 2008**

The Hilton Waikoloa Village Grand Ballroom will once again host CTAHR’s **13<sup>th</sup> Annual Mealani’s A Taste of the Hawaiian Range Food Festival** on **Friday, October 3, 2008** at **6:00 pm**. CTAHR, in partnership with the Hawaii Cattlemen’s Association, and the Big Island Farm Bureau, will host the “premier foodie event” in Hawaii, featuring island-grown meats, vegetables and other locally-grown foods. Mark your calendar and go to the web site for more information: <http://www.ctahr.hawaii.edu/taste/index.asp>. Time for grind!!

# Comings and goings

By Doug Vincent  
Special Program Director for Grants and Contracts

## Mahalo, Dennis Miyahara

We extend our warmest aloha and mahalo nui loa to Dennis S. Miyahara, Educational Media Specialist, of the Agricultural Development of the American Pacific (ADAP) program. Dennis has left CTAHR to accept a new position as the Executive Director of the Western Veterinary Conference in Las Vegas, NV. Most of us may not have known Dennis personally but many of us have benefited from Dennis' expertise. As the videographer in ADAP, you may have seen some of the videos produced for the ADAP program or have seen Dennis manning a video camera at past CTAHR events. In my case, the TSTAR program has been the beneficiary of Dennis' expertise in the production of excellent "mini-documentaries" about TSTAR-funded projects, including a most recent video on Anne Alvarez's ginger project. We have used these short videos to illustrate the diversity of the TSTAR program and to justify its existence to USDA CSREES and our Congressional delegation. You can view the excellent work done by Dennis at this web site: <http://www.ctahr.hawaii.edu/t-star/TSTARHilitePage.htm>. Dennis



and others also worked on the famous "KT" and Roy Yamaguchi Hawaii produce marketing videos: <http://www.hawaiiag.org/hdoa/marketingvideos/hdoa.html> We wish Dennis great success in his new position. Chris Kadooka from PEPS will be filling in for Dennis in the interim. Good luck to both of them!



## CTAHR Welcomes Shirley Akiyoshi

Please stop by the CTAHR Fiscal Office and greet Shirley Akiyoshi, our new Administrative Officer. Shirley is a recent hire, filling the vacancy by the resignation of Sam Kuo. Shirley has excellent credentials and brings significant experience to our fiscal office. Welcome, Shirley!

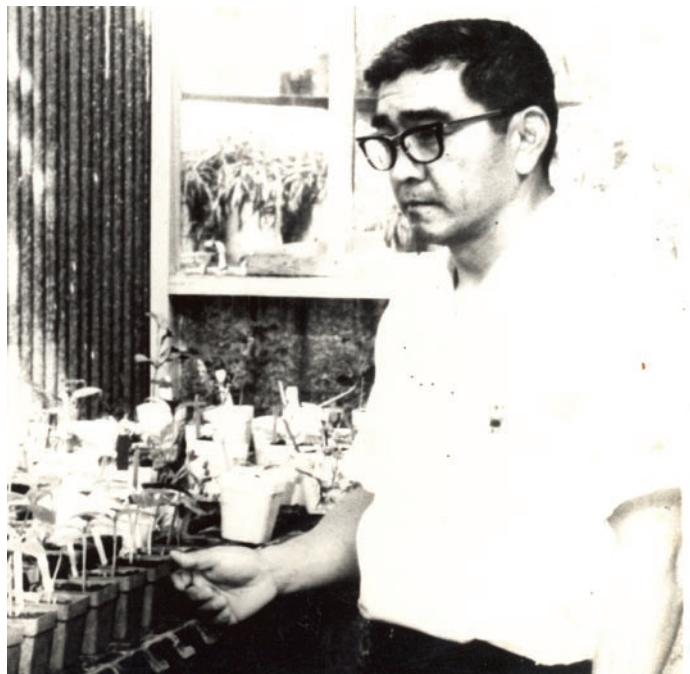
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# Passings

By Doug Vincent  
Special Program Director for Grants and Contracts

## In Memoriam – Ryoji Namba

CTAHR lost one of its “Go for Broke” bests recently. Dr. Ryoji “Bull” Namba, 86, emeritus entomologist, died March 31, 2008. Dr. Namba was a long time faculty member in the Department of Entomology; a World War II veteran and member of the 442nd Regimental Combat Team; an avid golfer; and weight lifter. Ryo worked extensively on insect vectors of plant diseases – including papaya ringspot virus – and was an expert in the role of aphids in the transmission of plant viral diseases. Ryo taught courses in insect morphology and insect transmission of diseases. CTAHR extends our condolences to his wife, Winifred, children and grandchildren.



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## SB958-SD1-HD2 Taro bill update

By CY Hu  
Associate Dean /Associate Director for Research

**T**aro again is in the spotlight this legislative session. Senate bill SB958, which passed through Senate but was deferred by the House Agriculture Committee last session, proposed a 10-year moratorium on transgenic taro research and plantings in the State of Hawaii. Native Hawaiian and anti-GMO activists have mobilized their supporters and put a lot of pressure on House leadership to hear this bill. The House Agriculture Committee heard the bill this session on March 19, 2008 in the Capitol Auditorium. After initially deferring decision making, the Agriculture Committee Chair, Representative Clifton Tsuji, held a committee meeting on April 3: a compromise bill was crafted and passed by 9 to 3 votes. The amendment shortens the moratorium to five years, and restricts research and planting to Native Hawaiian taro varieties only. The bill was reported to the full House as amended in HD 2, and recommended passage on the third reading. On April 8, 2008, the House considered the amended version, but recommitted SB958 SD1-HD2 back to

Agriculture Committee for revision. Because the bill needed to be passed by final crossover to the Senate by April 10, 2008, the bill was not be passed this session.

We have spent a tremendous amount of time and energy dealing with this issue and there is much to be learned from this experience. We have made efforts to educate our legislators about genetic engineering technology, and the vote reflects their understanding of the issues. However, it also exposes the lack of communication between Native Hawaiian groups, some taro farmers and CTAHR. There is a tremendous amount of misinformation out there regarding what we did, what we said, and what we are doing. As we have stated previously, we have always been willing to sit down and have a respectful dialogue with taro farmers who have concerns about taro health, production practices and the future of the industry to discuss ways to solve these problems. Let's hope that over the next year we can do so.

# Grant funding lagging in FY 2008

By Doug Vincent  
Special Program Director for Grants and Contracts

Just three new grants funded since we last reported in March. For the FY2008 fiscal year, these three awards bring us to 91 awards for \$9,171,901. If we don't get busy, this year might be our worst funding year since 1999, when we earned less than \$10 million. The loss of our Congressional earmarks will account for some of the decline in funding this fiscal year but not all. It's been a difficult year this grant season. But as a long-time Chicago Cub fan, I'm always optimistic . . . for next year. I guess we will have to accept that this year was a down year and do our best for the next fiscal year.

Although, we have received some earmark funding for the FY 2008 federal fiscal year, the political climate and the rhetoric from our three Presidential candidates indicate they might oppose future earmarks. Senators Obama, Clinton and McCain all supported a Senate moratorium on earmarks, so we can't rely on them for the future. With the fiscal burden of the Iraq war, we can expect tight budgets that might not include earmark funding. The funding opportunities listed in CRN, are not dependent on earmarks: take a look at them and help make FY 2009 fiscal year better than this one.

## CTAHR grants from 3\_14\_08 to 4\_10\_08.

First name	Last name / Dept	Project Name	Funder	Amount
Ken	Grace / PEPS	Funding for Mutual Interest	DA-Dept of Agriculture	\$22,000
Qing	Li / MBBE	Hair Analysis for Mercury and Arsenic Exposure	Hawaii Dept. of Health	63,000
Ron	Mau / PEPS	Area-Wide Pest Management Tephritid Flies that Infest Hawaii-Grown Fruits and Vegetables	DA-Dept of Agriculture	139,134
3 grants for a total of:				\$224,134

## Have you got questions about grants or funding!

By Sharee Pepper, PhD  
Grant Coach

Do you have questions about how to get **FUNDING** for CTAHR Research, Education, or Extension programs? Please send your questions, or ideas that you would like discussed, to [spepper@hawaii.edu](mailto:spepper@hawaii.edu) for potential topics of this column in future editions of *CTAHR Research News*. Or if you would prefer to remain anonymous and would just like an answer to a grant question, send that along as well and I will get back to you personally.

An appropriate question for this first column is:

**What kinds of grant support can I, as a grants specialist, provide to CTAHR faculty and staff?**

The types of assistance that the Office of Research and I can provide to CTAHR



(individually and collectively) will likely be a balance between what is needed and what is possible to do. As a grants specialist, some of the things that I can provide include:

**1) Providing support for developing successful grant submissions.** As a “Grant Specialist” I am a small part of a team which also includes the team leaders, the person(s) that are applying for the grant who supply the vision and knowledge of what can be done and how it should be done, as well as other possible consultants, collaborators, research assistants and support personnel (such as the fiscal office and administrative assistants). Because many persons in need of grants may not be skilled at grant writing, I can help with **editing, formatting, and determining what additional pieces might be needed or should be left out.** This is, however, very different from being a grant writer, where the applicant may provide a brief outline of what they would like included and the grant writer is tasked with writing the grant. While each project requires a different level of support, the likelihood of success ultimately depends on the willingness of the project leader(s) to commit time, energy and perseverance to make their vision happen. It should also be noted that federal funds cannot be used to support the position of a “grant writer.”

**2) Finding and sharing as many funding opportunities** as possible with CTAHR employees that are interested. Therefore, I e-mail listings of current funding sources as I find them to anyone who would like to be put on our e-mail list or who lets me know what specific kind of grant they are looking for. Just send me your e-mail address and specific areas of interest so I can begin looking for possible funding sources to fit your needs.

**3) Facilitating capacity building and providing grant support services.** We are also developing **training workshops**, as well as working individually with applicants, on how to increase the likelihood of writing a successful grant.

Please feel free to contact me with any questions or requests for assistance.

# New publications

## Ali Fares (NREM)

A. Fares, A. Dogan, F. Abbas, L. R. Parsons, T. A. Obreza, and K. T. Morgan. 2008. Water Balance Components in a Mature Citrus Orchard. Published online 8 April 2008; doi: 10.2136/soil-saj2007.0167 *Soil Sci Soc Am J* 2008 72: 578–58.

## Christopher Lepczyk (NREM)

Lepczyk, C.A., C.H. Flather, V.C. Radeloff, A.M. Pidgeon, R.B. Hammer, and J. Liu. 2008. Human Impacts on Regional Avian Diversity and Abundance. *Conservation Biology* 22:405–416.

## Creighton Litton (NREM)

Litton CM, Sandquist DR, Cordell S (2008) A non-native invasive grass increases soil carbon flux in a Hawaiian tropical dry forest. *Global Change Biology*, 14, 726-739.



## Hawaiian Fishpond Restoration

Manoa's College of Tropical Agriculture and Human Resources published *Loko I'a: A Manual on Hawaiian Fishpond Restoration and Management* by Graydon "Buddy" Keala with Assistant Specialist **James R. Hollyer** and Academic Support **Luisa Castro**.

In the past three decades, Hawai'i has experienced a cultural renaissance and a strong resurgence in all aspects of Native Hawaiian culture. Hawai'i is the only known place in Oceania where the people practiced a "pure" form of fishpond aquaculture.

The manual features fishpond history, information on the permits needed to build or restore them, a guide for construction including color photographs, and troubleshooting tips.

*Loko I'a: A Manual on Hawaiian Fishpond Restoration and Management* is available from CTAHR (808) 956-7036 or download the [order form](#).

Source: News@UH. <http://www.hawaii.edu/news-atuh/2008/0407/index.php?story=8>

# Looking for something to do this summer? Seek grant funding!

By Doug Vincent  
Special Program Director for Grants and Contracts

It's April! The semester is nearly over . . . a month or so of classes and we'll be facing the summer break. We're probably all wondering "what am we're going to do this summer?" I've got a suggestion. Take a scan through the funding opportunities below and look for one that fits your program.

To help you search for funding opportunities, we changed the format a bit. Instead of a single list of funding opportunities, I've categorized them in to general subject matter areas. Leading off are UH, Hawaii and Regional Grants. Among them are a series of new grant opportunities offered through the Hawaii Community Foundation. In the Agricultural Grants section are a whole series of Western Sustainable Agriculture Research and Education (Western SARE) grants. There

are still a few USDA CSREES National Research Initiative opportunities due in early June: two with short deadlines in the Environment/Water/Energy/Invasive Species section are the USDA ERS Economics of Invasive Species Grants and the USDA CSREES Integrated Water Quality Programs. New this month is the USDA CSREES program on Global Climate Change along with a couple of Department of Energy RFPs for bioenergy.

For graduate students, the USDA CSREES National Needs Fellowships are due in early May and the Western SARE Graduate Student grants are due at the end of May. Please take the time and find a funding opportunity and go for it. The cow won't get milked, unless you do it!!

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## UH, Hawaii and Regional Grants

University of Hawaii  
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_g.pdf)

[http://www.hawaii.edu/urc/pdf/factravel\\_f.pdf](http://www.hawaii.edu/urc/pdf/factravel_f.pdf)

University of Hawaii  
University Research Council

### Special Fund for Innovative Scholarship and Creative Work

Application Deadline: April 25, 2008

[http://www.hawaii.edu/urc/pdf/special\\_g.pdf](http://www.hawaii.edu/urc/pdf/special_g.pdf)

[http://www.hawaii.edu/urc/pdf/special\\_f.pdf](http://www.hawaii.edu/urc/pdf/special_f.pdf)

Hawaii Community Foundation

### Kahuku Community Fund

Proposal Deadline: June 23, 2008

[http://www.hawaiicomunityfoundation.org/doc\\_bin/grant\\_rfps/2008/KahukuRFP2008.pdf](http://www.hawaiicomunityfoundation.org/doc_bin/grant_rfps/2008/KahukuRFP2008.pdf)

Hawaii Community Foundation

### Annie Sinclair Knudsen Memorial Fund / Kauai Community Grant Program

Proposal Deadline: July 7, 2008

[http://www.hawaiicomunityfoundation.org/doc\\_bin/grant\\_rfps/2008/KnudsenRFP2008.pdf](http://www.hawaiicomunityfoundation.org/doc_bin/grant_rfps/2008/KnudsenRFP2008.pdf)

Hawaii Community Foundation

### Atherton Family Foundation

Proposal Deadlines: August 1, 2008, October 1, 2008, December 1, 2008

<http://www.athertonfamilyfoundation.org/>

Hawaii Community Foundation

### Fred Baldwin Memorial Foundation

Proposal Deadline: August 1, 2008

<http://www.fredbaldwinfoundation.org/>

Hawaii Community Foundation

### Family Literacy and Hawaii Pizza Hut Literacy Programs

Proposal Deadline: August 1, 2008

[http://www.hawaiicomunityfoundation.org/doc\\_bin/grant\\_rfps/2008/Literacy\\_FamilyRFP\\_2008.pdf](http://www.hawaiicomunityfoundation.org/doc_bin/grant_rfps/2008/Literacy_FamilyRFP_2008.pdf)

Hawaii Community Foundation

### Medical Research Proposal

Proposal Deadlines: August 15, 2008

[http://www.hawaiicomunityfoundation.org/doc\\_bin/grant\\_rfps/2008/MedResRFP2008.pdf](http://www.hawaiicomunityfoundation.org/doc_bin/grant_rfps/2008/MedResRFP2008.pdf)

Hawaii Community Foundation

### Hawaii People's Fund Grants

Proposal Deadline: September 1, 2008

<http://www.hawaiipeoplesfund.org/grantmaking/>

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Hawaii Audubon Society  
**Hawaii Audubon Society Research Grants**  
Proposals due: September 1, 2008  
<http://www.hawaii-audubon.com/haspdf/grant.pdf>

Hawaii Community Foundation  
**Cooke Foundation Grants**  
Proposal Deadline: September 1, 2008  
<http://www.cookefdn.org/>  
Hawaii Community Foundation  
**Rev. Takie Okumura Family Fund – Children and Youth**  
Proposal Deadline: September 15, 2008  
[http://www.hawaiicommunityfoundation.org/doc\\_bin/grant\\_rfps/2008/Okumura\\_RFP\\_2008.pdf](http://www.hawaiicommunityfoundation.org/doc_bin/grant_rfps/2008/Okumura_RFP_2008.pdf)

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## Agricultural Grants

U.S. Department of Agriculture, CSREES  
Western Sustainable Agriculture Research and Education Program  
**Sustainable Agriculture Tours**  
Proposals: Open until funding is exhausted  
[http://wsare.usu.edu/grants/docs/RFA\\_SAT.pdf](http://wsare.usu.edu/grants/docs/RFA_SAT.pdf)

U.S. Department of Agriculture, CSREES  
**Assistive Technology Program for Farmers with Disabilities: National Agrability Project**  
Proposal Deadline: April 24, 2008  
<http://www.csrees.usda.gov/fo/agrabilitynationalagrabilityprojects.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_agrability.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_agrability.pdf)

U.S. Department of Agriculture, CSREES  
**Youth Farm Safety and Education Certification Program**  
Proposal Deadline: May 1, 2008  
<http://www.csrees.usda.gov/fo/youthfarmsafetyeducationandcertification.cfm>

U.S. Department of Agriculture, CSREES  
**Global Climate Change, Ultraviolet Radiation Monitoring Program**  
Proposal Deadline: May 5, 2008  
<http://www.csrees.usda.gov/fo/globalchangeultravioletradiationmonitoring.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_ultraviolet.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_ultraviolet.pdf)

U.S. Department of Agriculture, CSREES  
**Expert IPM Decision Support System**  
Proposal Deadline: May 12, 2008  
<http://www.csrees.usda.gov/fo/expertipmdecisionsupportsystem.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_expert.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_expert.pdf)

U.S. Department of Agriculture, CSREES  
Western Sustainable Agriculture Research and Education Program  
**Western SARE Graduate Student Grants**  
Application Deadline: May 30, 2008  
[http://wsare.usu.edu/grants/docs/RFA\\_GS.pdf](http://wsare.usu.edu/grants/docs/RFA_GS.pdf)

CSREES – NRI  
**Animal Genome (C): Bioinformatics**  
Proposal Deadline: June 5, 2008  
<http://www.csrees.usda.gov/fo/animalgenomebioinformaticsnri.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_nri.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_nri.pdf)

U.S. Department of Agriculture  
CSREES – NRI  
**Animal Genome (B): Tools and Resources**  
Proposal Deadline: June 5, 2008  
<http://www.csrees.usda.gov/fo/animalgenometoolsresourcesnri.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_nri.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_nri.pdf)

U.S. Department of Agriculture  
CSREES – NRI  
**Animal Growth and Nutrient Utilization**  
Proposal Deadline: June 5, 2008  
<http://www.csrees.usda.gov/fo/animalgrowthandnutrientusenri.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_nri.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_nri.pdf)

U.S. Department of Agriculture  
CSREES – NRI  
**Agricultural Prosperity for Small and Medium-Sized Farms**  
Proposal Deadline: June 5, 2008  
<http://www.csrees.usda.gov/fo/smallfarmsagriculturalprosperitynri.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_nri.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_nri.pdf)

U.S. Department of Agriculture, CSREES  
Western Sustainable Agriculture Research and Education Program  
**Research and Education Competitive Grants Program**  
Pre-applications due: June 13, 2008  
Invited proposals due: November 14, 2008  
[http://wsare.usu.edu/grants/docs/RFPPre\\_RE.pdf](http://wsare.usu.edu/grants/docs/RFPPre_RE.pdf)

Gardener's Supply Company  
**The Garden Crusader Awards**  
Nomination Due: June 15, 2008  
<http://www.gardeners.com/Garden-Crusader-Awards/5549.default.pg.html>

U.S. Department of Agriculture, CSREES  
**Critical Issues: Emerging and New Plant and Animal Pests and Diseases**

**Proposal Deadline: September 30, 2008**

<http://www07.grants.gov/search/search.do;jsessionid=H0HBC21DQnVBn5CCPqypTBQLf52F396VdNT05VynCrhbCh46ZKZcl834976773?oppId=15582&flag2006=true&mode=VIEW>

U.S. Department of Agriculture, CSREES  
Western Sustainable Agricultural Research and Education Program

**Professional Development Program Grants**

**Proposal Deadline: November 3, 2008**

[http://wsare.usu.edu/grants/docs/RFA\\_PDP.pdf](http://wsare.usu.edu/grants/docs/RFA_PDP.pdf)

U.S. Department of Agriculture, CSREES  
Western Sustainable Agricultural Research and Education Program

**Farmer/Rancher Research & Education Grants**

**Proposal Deadline: December 5, 2008**

[http://wsare.usu.edu/grants/docs/RFA\\_FRG.pdf](http://wsare.usu.edu/grants/docs/RFA_FRG.pdf)

U.S. Department of Agriculture, CSREES  
Western Sustainable Agricultural Research and Education Program

**Professional & Producer Grants**

**Proposal Deadline: December 5, 2008**

[http://wsare.usu.edu/grants/docs/RFA\\_PP.pdf](http://wsare.usu.edu/grants/docs/RFA_PP.pdf)

U.S. Department of Agriculture  
Agricultural Marketing Service

**Specialty Crop Block Grant Program**

**Proposal Deadline: March 5, 2009**

<http://apply.grants.gov/opportunities/instructions/oppUSDA-AMS-SCBGP-030509-cfda10.169-instructions.doc>

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**Rural and Community Development Grants**

CHS Foundation

**Returning Value to Rural Communities**

**Proposal Deadline: rolling – applications accepted year round**

<http://www.chsfoundation.org/programs/rvrc.htm>

U.S. Department of Agriculture  
Rural Development Agency

**Renewable Energy Systems and Energy Efficiency Improvement Grants and Guaranteed Loans**

**Application Deadline: June 16, 2008**

<http://www.rurdev.usda.gov/ga/nofa08energy.pdf>

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**Environment, Water, Energy, Invasive Species Grants**

U.S. Department of Agriculture  
Economic Research Service

**Program of Research on the Economics of Invasive Species Management**

**Proposal Deadline: April 25, 2008**

<http://www.ers.usda.gov/Briefing/InvasiveSpecies/preism.htm>

U.S. Department of Agriculture, CSREES

**National Integrated Water Quality Program**

**Proposal Deadline: April 29, 2008**

<http://www.csrees.usda.gov/fo/waterqualityicgp.cfm>

[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_water\\_quality.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_water_quality.pdf)

U.S. Environmental Protection Agency

**Brownfields Training, Research and Technical Assistance Grants**

**Proposal Deadline: May 1, 2008**

<http://www.epa.gov/oswer/docs/grants/epa-oswer-obl-08-02.pdf>

U.S. Department of Agriculture, CSREES

**Global Climate Change, Ultraviolet Radiation Monitoring Program**

**Proposal Deadline: May 5, 2008**

<http://www.csrees.usda.gov/fo/globalchangeultravioletradiationmonitoring.cfm>

[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_ultraviolet.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_ultraviolet.pdf)

U.S. Environmental Protection Agency

**Consequences of Global Change for Water Quality**

**Proposal Deadline: May 8, 2008**

[http://es.epa.gov/ncer/rfa/2008/2008\\_star\\_gcwq.html](http://es.epa.gov/ncer/rfa/2008/2008_star_gcwq.html)

U.S. Environmental Protection Agency

**Early Career Projects: Consequences of Global Change for Water Quality**

**Proposal Deadline: May 8, 2008**

[http://es.epa.gov/ncer/rfa/2008/2008\\_star\\_gcwq.html](http://es.epa.gov/ncer/rfa/2008/2008_star_gcwq.html)

U.S. Environmental Protection Agency

**National Risk Management Research Laboratory Innovation and Research for Water Infrastructure for the 21<sup>st</sup> Century.**

**Proposal Deadline: May 12, 2008**

[http://www.epa.gov/nrmrl/tech/pubs/WaterInfrastructure\\_3.18.08.pdf](http://www.epa.gov/nrmrl/tech/pubs/WaterInfrastructure_3.18.08.pdf)



U.S. Department of Energy  
Golden Field Office  
**University Research in Biomass Technologies: Applied Research in Conversion of Biomass to Advance Fuels**  
Proposal Deadline: June 6, 2008  
<https://e-center.doe.gov/iips/faopor.nsf/UNID/F9E991EBB53A1463852574260075ABFA?OpenDocument>

U.S. Environmental Protection Agency  
**Broad Agency Announcement for Conferences, Workshops and/or Meetings**  
Proposal Deadlines: June 5, 2008, December 9, 2008  
[http://es.epa.gov/ncer/rfa/2008/2008\\_baa.html](http://es.epa.gov/ncer/rfa/2008/2008_baa.html)

U.S. Department of Interior  
U.S. Fish and Wildlife Service  
**National Coastal Wetlands Conservation Grant Program**  
Proposal Deadline: June 27, 2008  
[http://ecos.fws.gov/docs/coastal\\_grants/web/pdf/1141.pdf](http://ecos.fws.gov/docs/coastal_grants/web/pdf/1141.pdf)  
[http://ecos.fws.gov/coastal\\_grants/viewContent.do?viewPage=home](http://ecos.fws.gov/coastal_grants/viewContent.do?viewPage=home)

U.S. Environmental Protection Agency  
**Environmental Justice Small Grants Program**  
Proposal Deadline: April 8, 2008  
<http://www.epa.gov/compliance/resources/publications/ej/grants/rfa-sg-grant-4-7-08.pdf>

U.S. Department of Energy  
**State Energy Program Formula Funds**  
Proposal Deadline: August 1, 2008  
<https://e-center.doe.gov/iips/faopor.nsf/UNID/F6D14791DF8F85598525740B006B39C3?OpenDocument>

U.S. Department of Interior  
U.S. Fish and Wildlife Service  
**Coastal Programs**  
Proposal Deadline: September 30, 2008  
<http://ecos.fws.gov/coastal/viewContent.do?viewPage=home>

U.S. Department of Interior  
U.S. Fish and Wildlife Service  
**Partners for Fish and Wildlife Program**  
Proposal Deadline: September 30, 2008  
<http://ecos.fws.gov/partners/viewContent.do?viewPage=home>

U.S. Department of Energy  
Chicago Science Center  
**Energy Frontier Research Center**  
Letter of Intent Due: July 1, 2008  
Proposal Deadline: October 1, 2008  
<https://e-center.doe.gov/iips/faopor.nsf/UNID/933104E42D0185E58525742100694C78?OpenDocument>

U.S. Environmental Protection Agency  
**Broad Agency Announcement for Conferences, Workshops and/or Meetings**  
Proposal Deadlines: December 9, 2008  
[http://es.epa.gov/ncer/rfa/2008/2008\\_baa.html](http://es.epa.gov/ncer/rfa/2008/2008_baa.html)

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## Health, Nutrition, Food, Biomedical Grants

U.S. Department of Health and Human Services  
National Institutes of Health  
**Improving Diet and Physical Activity Assessment (R01)**  
Letters of Intent Due: May 5, 2008  
Proposal Deadline: June 5, 2008  
<http://grants.nih.gov/grants/guide/pa-files/PA-07-259.html>

U.S. Department of Health and Human Services  
National Institutes of Health  
**Cooperative Research Partnerships for Biodefense and Emerging Infectious Diseases (U01)**  
Proposal Deadline: May 12, 2008  
<http://grants.nih.gov/grants/guide/rfa-files/RFA-AI-08-001.html>

U.S. Department of Agriculture  
Food and Nutrition Service  
**FY 2008 Food Stamp Participation Program**  
Proposal Deadline: May 15, 2008  
<http://www.fns.usda.gov/fns/grants.htm>  
<http://www.fns.usda.gov/fsp/>

Horses and Humans Research Foundation  
**Therapeutic Effects of Horses on Humans**  
Proposal Deadline: May 15, 2008  
<http://www.horsesandhumans.org/Research.html#Application>

U.S. Department of Agriculture  
Economic Research Service  
**Food and Nutrition Research Program Competitive Grants and Cooperative Agreement Program**  
Proposal Deadline: May 19, 2008  
<http://www.ers.usda.gov/Publications/AP/AP027/AP027.pdf>

Department of Health and Human Services  
National Institutes of Health  
**Diet Composition and Energy Balance (R01)**  
Proposal Deadlines: June 5, 2008, October 5, 2008  
<http://grants1.nih.gov/grants/guide/pa-files/PA-07-218.html>

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Department of Health and Human Services  
National Institutes of Health  
**Nanoscience and Nanotechnology in Biology and Medicine (R01) (R21)**

R01 Proposal Deadlines: June 5, 2008, October 5, 2008  
R21 Proposal Deadlines: June 16, 2008, October 16, 2008  
<http://grants.nih.gov/grants/guide/pa-files/PA-08-052.html?CFID=3004911&CFTOKEN=41901981>  
<http://grants.nih.gov/grants/guide/pa-files/PA-08-053.html?CFID=3004911&CFTOKEN=41901981>

U.S. Department of Agriculture  
CSREES – NRI

**Human Nutrition and Obesity**

Proposal Deadline: June 5, 2008  
<http://www.csrees.usda.gov/fo/humannutritionobesitynri.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_nri.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_nri.pdf)

Department of Health and Human Services  
National Institutes of Health  
**Research on the Economics of Diet, Activity and Energy Balance (R21)**

Proposal Deadline: June 16, 2008, October 16, 2008  
<http://grants.nih.gov/grants/guide/pa-files/PA-08-077.html?CFID=3252367&CFTOKEN=71529920>

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**Science Grants**

Human Frontier Science Program  
**Short term Fellowship Program**

Proposal Deadline: rolling – applications accepted year round  
[http://www.hfsp.org/how/appl\\_forms\\_STF.php](http://www.hfsp.org/how/appl_forms_STF.php)

National Science Foundation  
**Integrative Graduate Education and Research Traineeship (IGERT) Program**

IGERT Traineeship Preliminary pre-proposals due: April 24, 2008  
Deadline for IGERT Resource Center Proposals: April 24, 2008  
Deadline for Invited IGERT Traineeship full proposals: October 20, 2008  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf08540](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf08540)

National Science Foundation  
**Science, Technology, and Society**  
Proposal Deadlines: August 1, 2008, February 1, 2009  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf08553](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf08553)

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**Fellowships**

National Academies of Science, Engineering and Medicine  
**Research Associates Programs**  
Application Deadline: May 1, 2008  
<http://www7.nationalacademies.org/rap/>

National Science Foundation  
**Faculty Early Career Development (CAREER) Program**  
Application Deadlines: July 22-24, 2008 (depending on discipline); July 21-23, 2009, July 20-22, 2010  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf08557](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf08557)

National Endowment for the Humanities  
**Fellowships at Digital Humanities Centers**  
Application Deadline: September 14, 2008  
<http://www.neh.gov/grants/guidelines/fdhc.html>

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**For Graduate Students**

U.S. Department of Agriculture, CSREES  
Food and Agricultural Sciences National Needs Graduate and Postgraduate Fellowship Program  
Proposal Deadline: May 8, 2008  
<http://www.csrees.usda.gov/fo/graduateandpostgraduatefellowshipsserd.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_national\\_needs.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_national_needs.pdf)

U.S. Department of Agriculture, CSREES  
Western Sustainable Agriculture Research and Education Program  
**Western SARE Graduate Student Grants**  
Application Deadline: May 30, 2008  
[http://wsare.usu.edu/grants/docs/RFA\\_GS.pdf](http://wsare.usu.edu/grants/docs/RFA_GS.pdf)

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**Families, Youth and Children Grants**

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

U.S. Department of Agriculture, CSREES  
**Rural Health and Safety Education Competitive Grants**  
Proposal Deadline: June 2, 2008  
<http://www.csrees.usda.gov/fo/ruralhealthandsafetyeducation.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_rural\\_health.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_rural_health.pdf)

U.S. Department of Health and Human Services  
Administration for Children and Families  
**Child Welfare Training: National Child Welfare Workforce Initiatives**  
Proposal Deadline: June 5, 2008  
<http://www.acf.hhs.gov/grants/open/HHS-2008-ACF-ACYF-CT-0047.html>

U.S. Department of Health and Human Services  
Administration for Children and Families  
**Head Start Innovation and Improvement Projects**  
Letter of Intent due: May 19, 2008  
Proposal Deadline: June 9, 2008  
<http://www.acf.hhs.gov/grants/open/HHS-2008-ACF-OHS-YD-0025.html>

National Gardening Association  
**Youth Garden Grants**  
Proposal Deadline: November 15, 2008  
<http://www.kidsgardening.com/YGG.asp>

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## Education Grants

National Science Foundation  
**NSF Graduate Teaching Fellows in K-12 Education**  
Letters of Intent due: May 16, 2008  
Invited Proposal Deadline: July 3, 2008  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf08556](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf08556)

National Science Foundation  
**Course, Curriculum and Laboratory Improvement**  
Proposal Deadline: May 20, 2008  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf08546](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf08546)

U.S. Department of Education  
**Education Research CFDA 84.305A-1**  
**Education Research on Statistical and Research Methodology in Education CFDA 84.305D**  
**Special Education Research CFDA 84.324-A**  
Proposal Deadline: June 26, 2008  
<http://a257.g.akamaitech.net/7/257/2422/01jan20081800/edocket.access.gpo.gov/2008/pdf/08-911.pdf>

U.S. Department of Agriculture, CSREES  
**Higher Education Multicultural Scholars Program**  
Proposal Deadline: July 28, 2008  
<http://www.csrees.usda.gov/fo/multiculturalscholarshp.cfm>  
[http://www.csrees.usda.gov/funding/rfas/pdfs/08\\_multicultural\\_selg.pdf](http://www.csrees.usda.gov/funding/rfas/pdfs/08_multicultural_selg.pdf)

National Science Foundation  
**Informal Science Education**  
Letter of Intent Due: September 18, 2008  
Proposal Deadline: December 18, 2008  
[http://www.nsf.gov/publications/pub\\_summ.jsp?ods\\_key=nsf08547](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf08547)

U.S. Department of Education  
**Special Education Research CFDA 84.324A-2**  
**Evaluation of State and District Evaluation Programs and Policies CFDA 84.305E**  
**Education Research and Development Centers CFEA 84.305C**  
**Education Research Training CFDA 84.305B**  
**Special Education Research Training CFDA 84.324B**  
Proposal Deadlines: October 26, 2008  
<http://a257.g.akamaitech.net/7/257/2422/01jan20081800/edocket.access.gpo.gov/2008/pdf/08-911.pdf>

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## Humanities Grants

U.S. National Endowment for the Humanities  
**Fellowship Awards**  
Application Deadline: May 1, 2008  
<http://www.neh.gov/grants/guidelines/Fellowships.html>

U.S. National Endowment for the Humanities  
**Challenge Grants**  
Proposal Deadline: May 1, 2008  
<http://www.neh.gov/grants/guidelines/challenge.html>

U.S. National Endowment for the Humanities  
**Faculty Research Awards**  
Proposal Deadline: May 1, 2008  
<http://www.neh.gov/grants/guidelines/facultyresearch.html>

U.S. National Endowment for the Humanities  
**Fellowships for Advanced Social Science Research on Japan**  
Application Deadline: May 1, 2008  
<http://www.neh.gov/grants/guidelines/fellowships-japan.html>

National Endowment for the Humanities  
**Collaborative Research Grants**  
Proposal Deadline: November 4, 2008  
<http://www.neh.gov/grants/guidelines/collaborative.html>

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## Financial Grants

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

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National Endowment for Financial Education

**Innovative Financial Literacy Grants**

Concept Paper Due: June 3, 2008

<http://nefe.org/Grantmaking/GrantGuidelines/tabid/127/Default.aspx>

FINRA Investor Education Foundation

**Research and Education Grants**

Project Concept Paper Due: July 12, 2008

<http://www.finrafoundation.org/guidelines.asp>

U.S. Department of Health and Human Services

Administration for Children and Families

**Assets for Independence Demonstration Grants**

Proposal Deadline: January 15, 2009, March 25, 2009

<http://www.acf.hhs.gov/grants/open/HHS-2008-ACF-OCS-EI-0053.html>