College of Tropical Agriculture and Human Resources

Vision Statement
The College of Tropical Agriculture and Human Resources will actively help Hawaii diversify its economy, ensure a sustainable environment, and strengthen its communities, and will be the premier resource for tropical agricultural systems and environmental resource management in the Asia-Pacific region.

Core Values
The College values learning, discovery and engagement in formal and informal settings, and strives for excellence in all its endeavors. Our interactions with others are characterized by outstanding service and an attitude of respect, honesty and integrity.

Departments within the College
- Family and Consumer Sciences
- Human Nutrition, Food and Animal Sciences
- Molecular Biosciences and Bioengineering
- Natural Resources and Environmental Management
- Plant and Environmental Protection Sciences
- Tropical Plant and Soil Sciences

Degree Programs

Bachelor of Science Degrees
- Animal Sciences
- Apparel Product Design & Merchandising
- Bioengineering
- Family Resources
- Food Science & Human Nutrition
- Natural Resources and Environmental Management
- Plant and Environmental Biotechnology
- Plant and Environmental Protection Sciences
- Tropical Plant and Soil Sciences

Master of Science Degrees
- Animal Sciences
- Bioengineering
- Entomology
- Food Science
- Molecular Biosciences and Bioengineering
- Natural Resources and Environmental Management
- Nutritional Sciences
- Plant Pathology
- Tropical Plant and Soil Sciences

Doctoral Degrees
- Entomology
- Molecular Biosciences and Bioengineering
- Natural Resources and Environmental Management
- Plant Pathology
CTAHR Integrated Initiatives and Research
Animal Waste Management
Island ecosystems are subject to rapid environmental degradation due to a limited buffering capacity and rapid nutrient cycling. Limited landmass and relatively close proximity of livestock and dairy operations to populated areas create problems in dealing with animal wastes. This initiative combines research and extension activities to do demonstration research on uses of animal wastes as fertilizer. The project also incorporates green wastes as appropriate.

Enhancing Taro Production in Hawaii
This initiative began as a rapid response to a critical disease problem that was impacting up to 90% of some farmers' crops. This initiative is determining information to reduce the incidence of disease and to improve nutrient management and other practices for this Polynesian staple. Impacts include alteration of decades old practices that resulted in increased production and the savings of thousands of dollars through reduced fertilizer costs. Because this crop is traditionally grown in submerged conditions near waterways or streams, other efforts are aimed at minimizing the negative effects on water quality.

Fruit and Vegetable Education
A team of extension faculty is working with research and education to encourage consumers to increase their consumption of locally grown produce. Focus groups were conducted to help assess vegetable preferences and factors that influence vegetable intake among the target audiences. Results of the focus group interviews showed that participants knew the importance of eating fruits and vegetables; thus, educational programs will focus on "how to include more fruits and vegetables to increase the number of servings consumed."

Measuring Successes/Outcomes
This initiative focuses on outcome measurements in two CES programs, the Family Community Education (FCE) Program and the 4-H Program. The objectives of this initiative are to measure the effectiveness of training CES staff and volunteers to use outcome measures, to develop culturally sensitive measures of program effectiveness for use with Hawaii's diverse ethnic mix, to demonstrate an increase in collaboration between CES staff and stakeholders, and to apply outcome measurements developed at the state and national levels. 4-H in Hawaii has been randomly selected to participate in a national impact assessment through the University of Arizona to provide national baseline data on 4-H programs.

Papaya Education
Until the papaya ring spot virus nearly wiped out the industry, Hawaii farmers enjoyed a market share of nearly 80% of the U.S. papaya market. The industry is being revived due to the introduction of a genetically enhanced, ring spot virus resistant papaya, UH Rainbow. As a result, hundreds of acres of new papaya plantings are being installed. This initiative is transferring research-derived material through an extension program designed to meet the needs of new papaya farmers.

Tropical Fruit Industry Development
One of the niches available to Hawaii is the production of tropical fruits both for local consumption and export markets. An industry analysis is currently being completed, and further input is currently being sought from the industry prior to the adoption of new projects in this area.

- Transgenic Papaya Ringspot Virus Resistance Papaya Work – Richard Manshardt
- Predictors of Osteoporosis – Rachel Novotny. Novotny’s research focuses on adolescent girls, calcium intake and bone density as predictors of future osteoporosis. Through this project, Novotny also provides the Asian American component of a larger national study on predictors of osteoporosis.
- Winston Su is doing research using interesting genes that produce a green florescent dye into plants as a mechanism to detect the activation of certain genes or certain enzymatic processes.
- Barbara DeBaryshe is conducting research on the role of the family in the ultimate literacy of the child.

Student Profile

FACTS & FIGURES
Total Students: 579, Undergrad: 432, Grad: 147
Men: 167, Women: 412
Undergraduate Men: 91/432
Undergraduate Women: 341/432
Graduate Men: 76/147
Graduate Women: 71/147
Ethnic Breakdowns: (Fall 2001)
Asian/Pacific Islander: 392
  Japanese: 138
  Chinese: 81
  Korean: 33
  Filipino: 46
  Hawaiian/Part Hawaiian: 41
  Pacific Islander: 7
  Other Asian: 22
  Mixed Asian/Pacific Islander: 24
Hispanic: 13
Caucasian: 103
African American: 2
American Indian/Alaska Native: 1
Mixed: 56

Faculty Profile

Publications and Presentations
926 Publications, 625 Presentations, 37 Creative performances

Leadership and Editorial Positions: Editors and editorial board members for academic journals and manuscript reviewers for academic journals.
- Editorial Board (CTAHR), *International Journal of Water Resources Development*

Faculty Awards and Honors
- Alex Laurie Award for Research and Education, Society of American Florists, 2002: Richard Criley
- Alexander von Humbolt Award for Agriculture, 2002: Richard Manshardt
- Award for Excellence, Northeastern Regional Association of State Agriculture Experiment Station Directors, 2001: Diane Masuo
- Chancellor’s Award for Administrators/Professionals/Technical Employees, 2002: Sonia Campbell
- Chancellor’s Citation for Meritorious Teaching, 2002: Sylvia Yuen
- Chancellor’s Citation for Meritorious Teaching, 2002: Wayne Iwaoka
- Excellence in 4-H Club Support Award, National Association of Extension 4-H Agents, 2001: Joan Chong
• Award for Outstanding Extension Support of the Hawaii Area-wide Fruit Fly Program, USDA – ARS-PBARC, 2002: Ronald Mau
• Award for Merit for Outstanding Research Contributions, Gamma Sigma Delta (Honor Society for Agriculture), 2000: Janice Uchida
• Award for Best Technical Forum Presentation, 2000 Annual Meeting of the American Wood-Preservers’ Association: J. Kenneth Grace.
• Award for Merit for Outstanding Research Contributions, Gamma Sigma Delta (Honor Society for Agriculture), 2001: J. Kenneth Grace.
• Faculty Award, International Textiles and Apparel Association and Fairchild Publications, 2001: Linda Arthur
• Frances Davis Excellence in Undergraduate Teaching Award, 2000: Rick Caulfield
• Hawaii Professor of the Year, Carnegie Foundation for the Advancement of Teaching, and the Council for the Advancement and Support of Education, 2000: Linda Arthur
• Hung Wo and Elizabeth Lau Ching Foundation Award for Faculty Service to the Community, 2002: Donna Ching
• Induction as Honorary Member of Golden Key International Honor Society in recognition of scholarly achievements, 2001: Rick Caulfield
• International Award, Institute of Food Technologists, 2002: James Moy
• Ka Pouhana Mentor Award, College of Tropical Agriculture and Human Resources, 2002: Rick Caulfield
• National Award for Excellence in 4-H Club Programming: Carol Ikeda
• President’s Leadership Award, Soil and Water Conservation Society, 2000: Samir El-Swaify
• Professional Achievement Award, Chinese American Food Society, 2002: Wai-Kit Nip

Center on the Family Data Center (Sylvia Yuen, PhD): The Data Center of the Center of the Family is the most comprehensive collection of data and information on Hawaii’s children and families. This database provides a comparison of indicators of child and family well-being at the county, state, and national levels. Community specific data for select indicators are provided for over 40 school boundaries (i.e., feeder elementary and middle schools with corresponding high schools). Data on Native Hawaiian families and their preschool children, from birth to five years of age are highlighted. Drug use and prevention among children and youth data are also provided. The Family Data Center and Center on the Family has been supported by the Department of Health and Human Services Administration for Children and Families, Annie E. Casey Foundation, Hawaii’s Department of Health and Alu Like.

Learning Connections: Enhancing the School Readiness of Hawaii’s Keiki (children) (Barbara DeBaryshe, Ph.D.): The Center on the Family is working with the O‘ahu Head Start to design and field test the Learning Connections preschool curriculum. The curriculum uses both classroom and family learning activities to strengthen children’s early understanding of literacy and numeracy. After 20 weeks, children in eight Learning Connections classrooms showed greater gains in math, emergent reading, phonemic awareness and emergent writing than children in classrooms that used the regular Head Start curriculum. Family involvement in children’s learning at home is increased. We will be doing a second year of Learning Connections in Head Start this coming school year, as well as following-up our first “graduates” into kindergarten. If Learning Connections shows a lasting impact on children’s academic performance in elementary school, we will offer training in the curriculum to Head Start teachers across the state, and make the curriculum materials available to Head Start nationwide. Learning Connections is funded by a Head Start – University Research Partnership Grant from the Administration of Children and Families, Department of Health and Human Services.

Extramural Grants and Awards (2001-2002)
Research Awards: 78 Grants, $8,817,453
Nonresearch Awards: 46 Grants, $3,614,200
Community Extension and Outreach
Agricultural Leadership Foundation of Hawaii
This Foundation was established to develop and support effective leaders in the agricultural industry and rural communities through a multi-disciplinary leadership training program. This program was designed to expand the participant's access to beneficial resources, build confidence, enhance leadership skills and broaden the participant's perspective of statewide agriculture and shared common problems.

The goal of the Foundation is to provide experiences to promote positive problem solving for individuals engaged in agricultural enterprises or rural community development who have demonstrated leadership qualities. In addition, the program provides facilitation training and the opportunity to expand their personal network within the agricultural and rural communities.

Hawaii is redefining the role of agriculture. This is an exciting opportunity and challenge. The members of Class IX commit to work individually and collaboratively with each other and with leaders throughout the state. We will:

• Work with all sectors of the agricultural community to promote legislation and new opportunities for Hawaii and the Pacific.
• Encourage environmental stewardship to preserve our natural resources.
• Enhance Hawaii’s global agricultural relationships by promoting our unique Pacific Region location, optimum and diverse growing climates and technological market opportunities.

Consumer Food and Nutrition HelpLine
The Consumer Food and Nutrition HelpLine is a statewide telephone-based (and web-based) response system for consumer inquiries. Call or e-mail us for information and assistance for the following:

• Local fruits and vegetables
• Consumer food safety
• General nutrition guidelines
• Available resources (printed material, websites)

Center on the Family: The mission of the Center is to enhance interdisciplinary research, service, and education that supports and strengthens families. Most often, our work focuses on the multicultural families of Hawai‘i. Families are critical to the development of children, the well-being of individuals, and the strength of society. For these reasons, our programs and activities are preventive in nature and aimed at building strong and resilient families.

Financial Programs and Workshops
• Financial Connections
  A series of consumer-oriented, research-based articles on a variety of personal finance topics. Single copies are available free of charge. Single copies are available free of charge.
• Family Financial Counseling Program
  Educational and consumer-oriented financial counseling aimed at clarifying issues, resolving problems, or pursuing goals offered free of charge and by appointment only.
• Family Economics Workshops and Seminars
  Consumer-oriented financial information and education presentations on a variety of topics are available to sponsoring groups with 15 or more participants. Arrangements in advance of 4 weeks or more required.
• Financial Counseling Certificate Program
  Ten-session financial counselor training program offered in cooperation with the Hawaii Credit Union League. Open to representatives of nonprofit agencies and organizations with an interest in helping their clientele to help themselves through consumer-oriented financial counseling.
• **Financial Wellness Consulting Program**
  Individual consulting offered to nonprofit agencies and organization wishing to develop financial education programs and resources to improve the financial wellness of their clientele.

• **Money 2000/Money Ed** is a statewide educational program of Hawaii Cooperative Extension Service designed to increase the financial well-being of Hawaii residents through increased savings and/or reduced household debt.

• Take Charge of Your Money! is a series of seven workshops to teach you how to manage your financial affairs.

**Learning to Grow** (Grace Fong, Ed.D): Learning to Grow is an educational outreach program for families with children under 5-years-of age who are cared for by family members or friends, and who are receiving child care subsidies. Because children’s brains and bodies grow so quickly, the early years are very important. These early years shape children’s learning and behavior in later years. Learning to Grow provides information about how parents and child care providers can help children get off to a good start in life. . . so that all of Hawaii’s children are safe, healthy, and ready to succeed in school.

**KAMP: Kindergartners Are Most Precious (Carol Ikeda)**: The KAMP is a collaborative project between the East Hawaii 4-H, kindergarten teachers, and the Hawaii State Department of Education. KAMP is a half day school transition and orientation program for incoming kindergartners and their parents. Kindergartners and their parents are introduced to teachers and staff, tour the elementary school to familiarize kindergartners with their new environment. Parents are provided information about their child’s developmental tasks and provided interactive learning experiences to enhance cognitive, perceptual and motor skills. KAMP encourages and empowers parents to continue being their child’s teacher at home.

**Prominent Alumni**

• Swoon-Kwon Kim: Director General of the International Agriculture Research Institute, College of Agriculture at Kyungpook National University in Taesu, Korea. From 1974-79, directed the Maize Green Revolution, which tripled national yields of corn in Korea. Directed programs in Africa that successfully controlled major crop diseases, and his environmentally protective methods helped control major insects and Striga, a major parasitic weed, all which led to an 800 percent increase in corn yields in Nigeria. He is a He has received five nominations for the Nobel Prize, two honorary chieftaincies in Nigeria, 1988 Distinguished Alumnus of the East-West Center, a 1996 Distinguished Alumnus of the College of Tropical Agriculture and Human Resources. He received his PhD in Horticulture in 1974.

• James Walker: Former Coordinator for International Agriculture and Special Assistant to the Assistant Secretary for Science and Education in the U.S. Department of Agriculture, Washington, D.C. He is one of fewer than 25 people worldwide who held the title of Certified Professional Agronomist, Soil Scientist and Crop Scientist.