



*COOPERATIVE EXTENSION  
COUNTY OF RIVERSIDE*



*Annual Report  
2007-2008*

**Multidisciplinary research and education to improve agricultural viability and sustainability,  
increase public wellness and nutrition and advance youth development.**



UC President Dynes Tour of the Coachella Valley, Jan.08

<http://www.ceriverside.ucdavis.edu>

*Serving Riverside County residents in delivering research and educational programs in:  
Agriculture, Nutrition, Youth Development, and Natural Resources Since 1917*

*University of California, County of Riverside and U.S. Department of Agriculture Cooperating*

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## Cooperative Extension in Riverside County

The University of California Cooperative Extension is an educational program cooperatively funded by the county government, the federal government and the land grant Institute (University of California). Cooperative Extension exists in almost every county in the United States and always involves a partnership between the United States Department of Agriculture (USDA), the state's Land Grant University, and the county or local government. Hence, the delivery of Cooperative Extension programs including 4-H is a partnership between federal, state, and county governments.

In Riverside County, a cooperative relationship was formed between the University of California and the Riverside County Board of Supervisors in 1917. In 2001, the Memorandum of Understanding was revised further formalizing this relationship.

The mission of the University of California Cooperative Extension in Riverside County is to serve the citizens of the County by providing science-based research, education and public service to help them solve problems in agriculture, natural resources (including environmental quality), food and nutrition, food safety and human community development with the goal of improving agricultural viability and sustainability, increasing public wellness and nutrition and advancing youth development.

Funding for cooperative Extension includes staffing of academic and program support by the University of California, program support dollars for Expanded Food & Nutrition Education Program (EFNEP) and the Food Stamp Nutrition Education Program (FSNEP) by USDA and clerical and other support personnel, office spaces, travel, and other administrative needs by the County of Riverside.

The cooperative Extension administration falls under the Office of the Vice President of the University of California Division of Agriculture and Natural Resources (Dan Dooley). Locally, the Director of Cooperative Extension for Riverside County, Etaferahu (Eta) Takele, is the liaison between the University of California and the County Board of Supervisors. She is responsible for ensuring that the Cooperative Extension programs conform to: University policy; federal, state, and local laws; safety and health regulations; affirmative action guidelines; and the mission and educational objectives of the 4-H Youth Development Program.

The areas of staff expertise in Cooperative Extension of Riverside County in agriculture include: agronomy, vegetable crop production, integrated pest management, entomology, field crop production, viticulture, plant pathology, subtropical crop production, agricultural economics, poultry, animal sciences, and environmental horticulture. Academics in these fields serve a diversified and viable agricultural industry grossing over \$1.2 billion in the production of over 101 crops and in egg production. We are the only region producing dates in California and constantly searching for new and specialty crops that will provide our growers with a comparative advantage and high returns. We are blessed with a region and climate that allows multiple cropping systems annually.

We are reaching to hundreds of families and 4-H youth with our expertise of nutrition, consumer sciences and 4-H youth development helping them improve their nutrition, physical activity, health, money management and youth development. Also, we work with hundreds of volunteers assisting us with our outreach in 4-H youth development programs and Master Gardener education in urban environmental enhancement and community development.

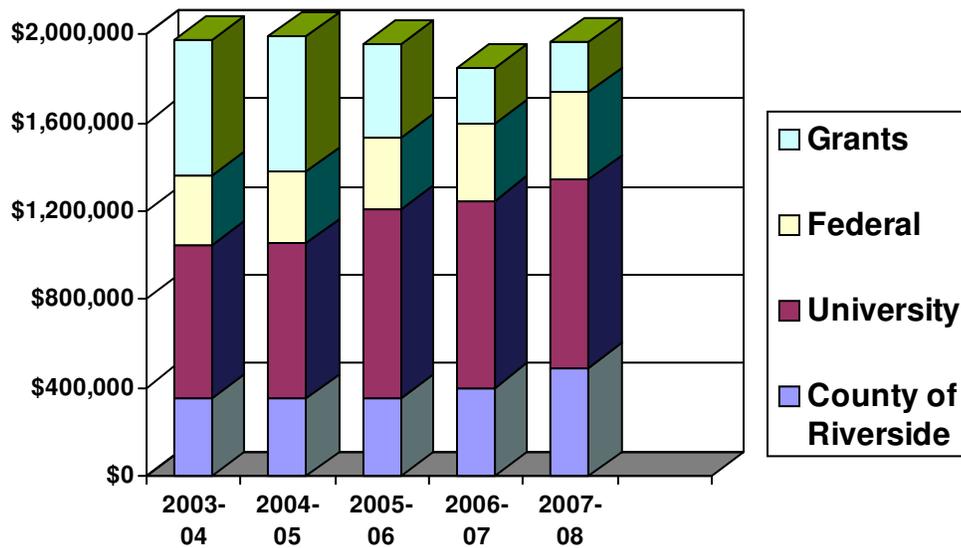
This past year, we gained additional University expertise from cross county advisors in floriculture and water resources. These two added expertise were needed to meet the growing needs in research and education in nursery production and the quality and use of water in agriculture and urban horticulture. Also we gained a County Master Gardener Volunteer Services Coordinator which has resulted in facilitating volunteer activities and the expansion of our Master Gardener program in the county.

We are approved to replace the farm advisor position in the Palo Verde Valley. This position is one of the only two approved for the Central Coast and Southern Region this year. Growers in this area were asking for the replacement. This position is critical in providing leadership in multiregional pest control programs. The advisor is expected to address pest management, implementation of IPM practices and crop water use efficiency that have become most important issues facing agriculture in this region.

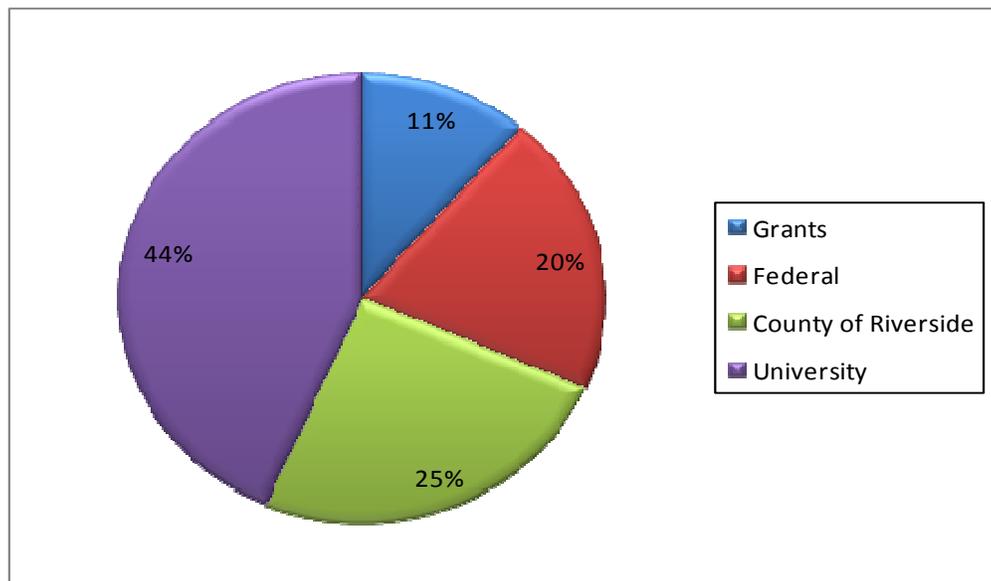
In December 2008, our Indio/Coachella Valley office moved from the County Administrative Building to a new location. This facility provides us with more educational and research opportunities.

## Cooperative Extension Funding 2003-2008

The following shows Cooperative Extension funding trends by the various sources including the County of Riverside, the University of California, USDA Federal funding and Grants from 2003-2008. The pie graph shows the proportion of funding by the various sources for FY 2007-2008. The budget compositions as presented here provide only the direct incomes from the various sources. However, the value of services provided to the County, through the liaison and collaborating effort of our academics with the research and educational activities of faculties and specialists of the University of California and other institutions, is significantly higher than presented here.



UCCE funding from various sources by Fiscal Year.



UCCE funding from various sources, Fiscal Year 2007-08.

## Highlights of Overall Program Accomplishments, 2007-2008

Contents of Report	Page
Highlights of Overall Program Accomplishments	3
Nutrition, Family and Consumer Sciences	4
4-H Youth Development	6
Vegetable Crops/ Small Farms — Coachella Valley	8
Viticulture and Pest Management	9
Agricultural Economics/Farm Management	10
Poultry Sciences	12
Environmental Horticulture	13
Master Gardener Program: Volunteers Services	13
Subtropical Horticulture	14
Organizational Chart 2008	15
Support Staff List and Telephone Nos.	16
Academic Advisors List and Telephone Nos.	17

- An eight-year study in cooperation with the Coachella Valley Water District to determine local reference evapotranspiration (ETO), using temporary weather stations in urban sites in the Coachella Valley has shown a potential water savings of 2.5 billion gallons annually.
- Progress is being done to control Citrus Leafminer (CLM) biologically. Work done with UCR Entomology Department has allowed more predators being successfully reared for release. Controlling CLM is particularly important to prevent yield and economic losses due to defoliation of nursery and young citrus trees.
- New technology (practiced in Mexico) using shade houses is considered promising to improve bell pepper production in the Coachella Valley of Riverside County. Field tests are being conducted.
- Best management practices for citrus, grain, vegetable crops and urban turfgrass are being developed along with UCR specialists to reduce nutrient load in the watershed of Canyon Lake and Lake Elsinore in Western Riverside County.
- Progress is being made in identifying new table grape varieties and the efficacy of novel insecticide materials for the control of Vine Mealybug.
- The Glassy-winged sharpshooter control program has continued to show successful maintenance of low population in the County's two grape growing regions: Temecula and the Coachella Valley.
- Specialty crops production economics showed high returns potential for small scale producers.
- Education is helping the poultry industry to adopt practices that mitigate fly nuisance and related complaints in poultry farms.
- Nutrition, Family and Consumer Sciences program teaming with local agency partners and schools taught hundreds of low income families and youth to improve their nutrition, physical activity and health. It also taught food stamp families and youth to improve their knowledge in money management and nutrition.
- 4-H Youth program is going strong. This year a Riverside youth made us proud by qualifying to be a member of a state team that won the National Junior Horticulture Association competition.
- The 4-H Youth Development Program had 721 members and 214 Adult Volunteers involved in 32 club units. There were 101 members in the after-school program
- 4-H, Master Gardeners and the Nutrition program are teaming up to support school gardens.
- Master gardener volunteers contributed to educate mountain residents on the best ways to landscape homes to reduce chances of wildfire damage.
- Educational programs conducted via meetings, conferences, newsletters, video programs, manuals, field demonstrations, etc., reached over 8,000 residents this year.
- We hosted a tour of the Coachella Valley agriculture for President Dynes of the University of California. The event attracted many professionals and growers and allowed interaction with the President and the Vice President for Agricultural and Natural Resources, Dan Dooley.

## Nutrition, Family & Consumer Sciences



Chutima Ganthavorn,  
Nutrition, Family and Consumer Sciences Advisor

### Program Overview

The Nutrition, Family and Consumer Sciences Program (NFCS) provides research-based education in the areas of nutrition, food safety and consumer economics. This program has one academic advisor and five nutrition educators.

NFCS Program has two on-going nutrition education projects that are federally funded:

- 1) Expanded Food and Nutrition Education Program (EFNEP), and
- 2) Food Stamp Nutrition Education Program (FSNEP).

### Adult EFNEP: Eating Smart & Being Active

The big change this year in Adult EFNEP is the new core curriculum "Eating Smart & Being Active". The new core is a series of eight hands-on nutrition lessons that focus on behavior change. Participants learn how to eat healthy and be more active in a fun and supportive environment.



Myriam Acevedo (left) handing out EFNEP participation certificate.

#### EFNEP's Mission

*"To improve the health of limited resource youth and families with young children through practical lessons on basic nutrition and healthy lifestyles, resource management, and food safety."*

In Riverside County, EFNEP nutrition educators: Fatima Afana, Myriam Acevedo, Sharon Southworth and Liz Armijo deliver nutrition education through a number of local agencies, schools and community groups. During FY 2006-2007, Riverside County EFNEP helped 576 low income families and 1,142 youth to improve their nutrition, physical activity and health.

EFNEP Highlights 2006-2007:

- Parents at Lake Elsinore Head Start participated in EFNEP Thermometer Study Project.



- Adult EFNEP conducted a special project with Cal Safe Program at March Air Reserve Base. A total of 37 teen parents including 5 teen fathers were enrolled in EFNEP Pregnant Teens Nutrition Education.

*Sharon Southworth teaching teen moms how to make healthy choices at the vending machines.*



- Children at Soboba Indians Tribal Preschool learned about handwashing and healthy food choices with Youth EFNEP's Happy Healthy Me curriculum.

*Advisor Chutima Ganthavorn helping children with handwashing.*



## Adult FSNEP: Making Every Dollar Count

In Riverside County, FSNEP nutrition educators: Gustavo Rimada, Fatima Afana and Liz Armijo deliver nutrition education through a number of local agencies, schools and community groups. During FY 2007-2008, Riverside County FSNEP helped 313 food stamp recipients and food stamp eligible families, and 1,702 youth to improve their knowledge in money management and nutrition.



*Gustavo Rimada showing the amount of fat in a fast food meal.*

## Learning Healthy Lifestyles with Eat Fit

Youth FSNEP had a successful year enrolling youth at Desert Springs Middle School (Palm Springs Unified) and Indio High School (Desert Sands Unified) in EatFit.

### FSNEP's Mission

*"To improve the likelihood that persons eligible for the Food Stamp Program will make healthy food choices within a limited budget and choose physically active lifestyles..."*

Two health teachers at Desert Springs Middle taught EatFit to 525 students, and eight teachers from Indio High taught EatFit to 570 students.

EatFit is an award winning curriculum that teaches youth to set personal goals for healthy eating and becoming physically active. The pre/post tests were conducted with 299 students from 10 classes at Indio High and 4 classes at Desert Springs Middle. The results show 55% of the students improved in nutrition knowledge (range 35%-69%), 36% improved in food selection (range 19%-63%), and 55% improved in physical activity behavior (range 37%-84%).



*From left: Fatima Afana and Liz Armijo at EatFit Training.*

## TWIGS Project with Farm Bureau (RCFB)

This year, Youth FSNEP received monetary support from Riverside County Farm Bureau (RCFB) to promote the TWIGS Project. TWIGS (Team with Intergenerational Support) is a curriculum that teaches about gardening and nutrition.

Six teachers from the following schools with a school garden participated:

- John Adams Elementary (Corona-Norco USD)
- Pachappa Elementary (Riverside USD)
- Sierra Middle (Riverside USD)
- Amelia Earhardt Middle (Riverside USD)
- Cielo Vista Elementary (Palm Springs USD)



*Youth at John Adam Elementary comparing quality of 3 different types of soils.*

The funding from RCFB provided each teacher with a supply kit to accompany the lesson plan. A total of 95 youth enrolled in the TWIGS project. The children learned about soil quality and nutrients, what plants need to grow, water transport, seeds, edible parts and food safety.

*"The students loved making greenhouse bags and after their vegetables grew, they loved planting them in the garden."*

*"The Eat Your Plants lesson fits in perfectly with one of our Language Arts stories. We ate many types of veggies & identified what part of the plant it was."*

## 4-H Youth Development



Jeanne Lothridge,  
4-H Program  
Representative

### Program Overview

The 4-H Youth Development program objective is to help youth become responsible, self-directed, and productive members of the global society. The goal is to improve the well being of youth, their families, and their communities.

The 4-H Youth Development Program had 721 members and 214 Adult Volunteers involved in 32 club units. There were 101 members in the after-school program.

### Presentation Days

This year, 42 members qualified to participate in the Southern Sectional Presentation Day held in May which include youth from Riverside, San Bernardino, Imperial, Ventura, Los Angeles, San Diego, Orange, and Santa Barbara counties. 4-H members competed in the following contests: Presentations, Cultural Arts, Educational Display Boards, Impromptu Speeches, Horticulture, Dog Show and Entomology.

Dust Devils from Blythe took the challenge of setting up the Entomology contest for the Sectional Field Day. Riverside County had the honor to send 4 members, to the State Level Competition. Our members returned to Riverside County in good and very good standing (with Blue and Gold Awards). One of our members qualified to compete in the California team. The team won first place in the National Jr. Horticulture Contest this fall (2008).



*A youth making presentation and demonstrating how to scuba dive.*

### State Volunteer Leader Training

Ten of our Leaders attended the State Volunteer Leader Training in Monterey at the Asilomar Conference Center in November (2007). They brought back some great ideas for their clubs and the county programs.

### Third Annual 4-H Training Institute

This year, the Third Annual 4-H Institute was held at the Nutrilite Facility in Lakeview. It included training Club Officers in using effective meeting ice-breakers, use of demonstrations for presentations, the Pro-Travel Study Program, and the process and principles of Volunteer Leader's Forum.

Workshops on Record Books and activities were also offered to our Primary members followed by a presentation of Award pins (Bronze Medals, Silver Medals and Gold Medals) for their record books.



*Riverside Youth qualified for a CA state team and won first place in the Junior Horticulture National Contest.*



## Collaborative Efforts

### 4-H and Food and Nutrition Programs with County Library

The 4-H Youth Development Program and the Nutrition Family and Consumer Sciences Program collaborated with the Riverside County Library System to bring 4-H and the TWIGS curriculum to four different 1<sup>st</sup> grade class rooms in the Lake Elsinore School District. This program was done over a 6 week period.

### California Focus

We sent three members with their Advisor and a chaperone to the State Travel Study Program, California Focus, in June of 2008. This is a program for members who are 13 years of age or older. For this program, members have to apply and get interviewed. During the program, selected members will learn about California history and government. In June, 2008, the three members spent 5 days in Sacramento as citizens of the "Sierra Cascade" where they practiced how to register to vote, conduct a political campaign, elect constitutional officers, analyze the needs and issues of their district, and enact legislation with the goal of securing the governor's signature to make their bill a law. They toured Sacramento including the Capitol and met with their elected Legislators.

The team of three then prepared and presented a "Plan of Action" to implement a service project back home. The plan was to clean up an area at the Eastern Municipal Water District in Perris. This area could be used during school tours. Their plan included planting trees or shrubs and if possible adding some picnic benches.

### After School Programs

Our after school program included two schools in the Jurupa School District. Working with our Nutrition Advisor, we piloted a program called Eating Healthy from Farm to Fork.

This nutrition curriculum includes teaching elementary school age children about the sources of where their food comes from (agriculture) as well as how to make healthy choices. The students also learned about the 4-H program. The program was presented in eight weeks to a first grade class of Van Buren Elementary School and an additional six weeks to another first grade class at Pedley Elementary School. At the end of the program each student received a certificate and a 4-H year pin.

### Child Safety Training

Our Adult Volunteers attended Child Safety Training. This included how to recognize child abuse, how to report it and also becoming familiar with the 4-H Youth Development Policies in dealing with children in Project Meetings and 4-H Activities.



### Volunteer Management Organization

This year two of our older youth were elected Vice President and Secretary of the Volunteer Management Organization (VMO). The VMO serves as the leadership body for the 4-H adult volunteers.

*The University of California 4-H Youth Development Program helps youth reach their fullest potential.*

## Vegetable Crops/Small Farms — Coachella Valley



Jose Aguiar,  
Vegetable Crops  
and Small Farms  
Advisor in the  
Coachella Valley

### Program Overview

The vegetable crops/small farms program addresses critical needs and issues that helps vegetable crop producers in the Coachella Valley. The program reaches to both large and small-scale growers. Jose is responsible for establishing a research and extension program to maintain and promote the viability of the area farms.

He advises sustainable approach including the efficient management of irrigation, soil and crop fertility, and integrated pest management. The Farm Advisor is the link between the University of California and the local grower community. Jose teams with other UC advisors and specialist to improve vegetable crop production.

### Sabbatical Leave

In 2006, Jose was on sabbatical leave in Sinaloa, Mexico. The purpose of the leave was to study bell pepper production. Sinaloa exports 16.9 million boxes or 170,976 tons of bell peppers with a gross value of \$194 million. Sinaloa growers are using various technologies like Green house, Maya Sombra and open field production that can be applicable in the Coachella Valley. Jose is currently conducting a field trial to evaluate the performance of shade houses in bell pepper production in the Coachella Valley.



*A trial evaluating bell pepper production in shade houses in the Oasis area of the Coachella valley.*

*New technology using shade house is considered promising to improve bell pepper production in the Coachella Valley of Riverside County.*

### Coachella Valley Farmers Educational Meetings/ Seminars

The goal of the educational seminars is to address current and specific problems facing growers and presenting research based information. Speakers include UCCE Farm Advisors and Specialists as well as USDA-NRCS (Natural Resources and Conservation Services) research scientists.

These seminars are co-sponsored by the Coachella Valley Resource Conservation District, USDA-NRCS and the Coachella Valley Mosquito and Vector Control District. Seminars were held at the USDA Service Center in Indio.

Several of these seminars qualified for continuing education credit. Seminar attendances vary but in most cases the annual attendance would exceed 200. In addition the Annual Soil Health Symposium involves expertise from the top USDA research Scientists as well as UC Specialists. This year the focus was on Mycorrhizae and the benefits they provide to plants.

## Viticulture and Pest Management



Carmen Gispert,  
Viticulture and  
Pest Management  
Farm Advisor

### Program Overview

The viticulture program addresses critical needs and issues that affect wine grape and table grape production in Riverside, San Bernardino and San Diego counties. The overall goal is to establish a program for maintaining vineyards with a more sustainable approach that includes an efficient management of water and vineyard floor, and the reduction of chemical use to control pests and pathogens.

The educational program consists of a series of seminars and workshops, training vineyard managers and field workers in viticulture production.

The Research program includes the evaluation of new table grape selections and the

efficacy of novel insecticide materials for the control of vine mealybug.



*Green seedless table grapes grown in the Coachella Valley.*

### Glassy-Winged Sharpshooter

*A collaborative effort has successfully reduced the population levels of the glassy-winged sharpshooter.*

A collaborative effort among the University of California and the California Department of Food and Agriculture has successfully maintained low populations of the glassy-winged sharpshooter in the Coachella and Temecula valleys, reducing the potential of the spread of Pierce's disease that could cause a lethal malady on grapevines.



### Vine Mealybug

Different populations of vine mealybug from the Coachella and San Joaquin valleys are being tested for their susceptibility to the treatment of the most common pesticides used in the past few years. This study will help to determine if there is reduced efficacy of some insecticides and resistance to control.



## Agricultural Economics/Farm Management



Etaferahu (Eta) Takele, Director and Area Advisor, Agricultural Economics/Farm Management

### Program Overview

The Agricultural Economics Program in Farm Management provides research-based education and analyses in crop production economics including investment estimates, production costs, profitability, risk and

financial management. Area advisor, Eta Takele is responsible for programs in Riverside County as well as several of southern California counties.

### Enterprise Profitability

This year, Takele developed three new specialty crops enterprise cost income studies/analyses in the southern California region. Among these studies, one of them, the establishment and production cost of dates is for Riverside County. The others are establishment and production costs of organic and conventional blueberries in the Ventura and Santa Barbara counties and guava in the San Diego county.

These studies have never been done before. They include both the production practices and economics of these enterprises.

These studies provide growers and investors a basis to evaluate the opportunities and challenges affecting agriculture.

They are particularly useful for evaluating the impacts of increasing input prices resulting from urban expansion, the increase of water and land values, and pesticide regulations.

In addition, having locally developed industry economic and profitability indicators will allow local farmers, bankers, and government agencies to assess and compare the relative efficiency and profitability of agricultural operations in Riverside County.

*The Coachella Valley of Riverside County is the region for date production in California.*



## Agricultural Economics/Farm Management

### Dissemination of Enterprise Cost-Income Budgets/ Analyses

The University of California reaches annually 25,000-30,000 clientele nationally and internationally with the dissemination of cost income studies of various agricultural commodities. Studies available for Riverside County can be downloaded from the following websites:

*What is the expected cost of producing crops in Riverside County?*



*Click on our websites and find out.*

- <http://groups.ucanr.org/farmgt/>
- <http://coststudies.ucdavis.edu>
- <http://www.vric.ucdavis.edu>
- <http://anrcatalog.ucdavis.edu>
- <http://www.sfc.ucdavis.edu>

### Risk Management Education

Since 2000, Takele has conducted risk management education programs that would enable growers to stay viable and sustainable. With funding from USDA, programs included education in providing risk management tools, diversification and production of new and specialty crops; collaboration with local institutions and agencies for enhancing program delivery and implementation.

This year, Takele released a user friendly Microsoft Excel-Visual Basics Interactive Farm Budget Generator (FBG) computer software program that she has developed. The software is to help growers develop and analyze their enterprise budgets (cost-income of establishment and production of crops) and profitability. It also helps growers to compare their production practices with the overall county or regional studies. Also, this tool has a capability for multiple year data entry and analysis, hence allowing the impact of changes or improvements on costs and returns overtime. Fifty people were trained in Riverside County.

*Eta Takele conducting a training of how to use the FBG computer software in Riverside County.*



## Poultry Sciences



Douglas R.  
Kuney, Area  
Poultry Advisor

### Program Overview

The Poultry Sciences program involves education and applied research in general poultry production with an emphasis in biosecurity of poultry farms, disease prevention,

egg quality, food safety, environmental protection and public health nuisance prevention associated with poultry production.

### Biosecurity

Disease prevention and containment are essential to the sustainability of the poultry industry and in the case of the avian Asian flu virus to the protection of public health in Riverside County. Kuney conducted several training meetings for the poultry industry in Riverside and other southern California counties on biosecurity and disease prevention.

### California Egg Quality Assurance Program (CEQAP)

Since the development and adoption of the CEQAP by the egg industry in California, the incidence of egg associated Salmonellosis food out breaks has dropped to practically zero. Kuney assists Riverside producers in developing farm specific quality assurance plans, provides workshops on egg product safety in processing plants. Producers receive adequate training to conduct effective programs in the areas of disease exclusion and food safety.



*Education on CEQAP attained success in the decline of egg associated salmonellosis food outbreaks in California to practically zero.*

### Public Health Nuisance Abatement

Kuney works closely with producers in the county in helping to prevent public health nuisances (flies, dust and odor) associated with poultry production. He helps producers adopt technology that has been proven through research to be effective. He also works closely with county agencies, Board of Supervisors and the surrounding communities to find solutions to public health nuisance conflicts between communities and the poultry industry.

### Ectoparasite Control Research in Egg Laying Flocks

Ectoparasite (Northern Fowl Mite and Body Louse) infestations have been shown to cause economic damage to the poultry industry in Kuney's recent studies. Beak trimming of young chicks is common practice to prevent future cannibalism and feed wastage in flocks. These studies have shown that birds without trimmed beaks can better control their ectoparasites than trimmed birds. This research is being conducted in cooperation with UCR Department of Entomology scientists and continues to evaluate the effects of trimming versus not trimming egg laying hens' beaks.

## Environmental Horticulture



Mike Henry, Environmental Horticulture Advisor, and Coordinator of Master Gardener Program.

*Several years study on water use (Evapotranspiration) by turf in the urban landscape in the Coachella valley shows potential savings of 2.5 billion gallons of water annually.*

### Program Overview

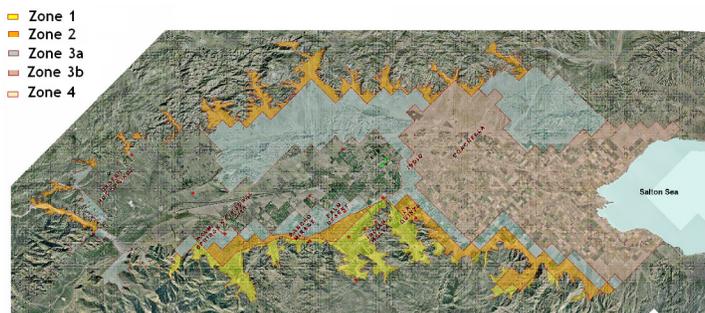
The Environmental Horticulture Advisor conducts applied research and continuing education for the turf, landscape, and nursery industries (landscape maintenance contractors, professional gardeners, park managers, sod growers and nurserymen).

Applied Research focused on water conservation in landscape by introducing low water using grasses that also need less nitrogen fertilizer. This conserves water and reduces the chance of contamination of surface and ground water supplies.

### Environmental Horticulture

Working with UC Davis Cooperative Extension specialist, Richard Snyder, and the Coachella Valley Water District, the advisor developed new information on water use (Evapotranspiration) by plants in the urban landscape of the Coachella Valley. Now plant water managers and water districts in the Valley can use this information to modify the State CIMIS (California Irrigation Management Information System) data to more accurately reflect the water

needs in their location. This University of California research information shows the potential savings of 2.5 billion gallons of water annually. For an average golf course covering 100 acres, this amounts to between \$5,700 (canal water rates) to \$17,226 (upper valley groundwater rates) in cost savings per year.



### Master Gardener Program: Volunteers Services

One Hundred experienced volunteers were active in educating the gardening public in Riverside County. Our Master Gardeners program reach out to the public with reliable, up-to-date, science-based answers from the University of California.

This past year our volunteers supported efforts to educate mountain residents on the best ways to landscape homes to reduce chances of wildfire damage. A workshop in Idyllwild, CA gave residents the latest information on fire-resistant building materials provided by the UC Berkeley Wood Products Lab. Over 5,560 educational contact hours were provided this year by our Master



Gardener volunteers throughout Riverside County. In the coming year, Master Gardener volunteers will expand educational programs to the residents of the San Jacinto watershed, to reduce water contamination in Canyon Lake and Lake Elsinore. The addition of the County support to hire a Volunteer Services Coordinator in F.Y. 2007-2008 is helping towards expanding education and service in the Temecula area and the Coachella Valley.

## Subtropical Horticulture

### Citrus Leaf Miner (CLM) Control



Tom Shea,  
Subtropical  
Hort. Staff Re-  
search Associ-  
ate

We have continued to combat the CLM problem. This problem if not controlled can cause defoliation and economic loss especially in nursery and young citrus trees.

Staff research Tom Shea is working on trap monitoring of CLM male counts. He is also providing information to UCR scientists to evaluate the CLM male population and efficacy of the controlling mechanisms such as the increase in the predatory wasps including an old predator, the green lacewing larva, now preying on CLM larva and pupa.

We are also at the beginning of a CLM insecticide spray trial on one year old non-bearing citrus trees to determine which pesticides would best protect the trees from possible defoliation and subsequent damage.

We continue to stress to growers that it is best in the long term to allow the natural enemies of CLM to be present in their orchard for future protection, even if this problem does not seem to cause serious threat at this time.

We will continue to monitor and record CLM flight activity here in Riverside County.

### Citrus Centennial Celebration Open House

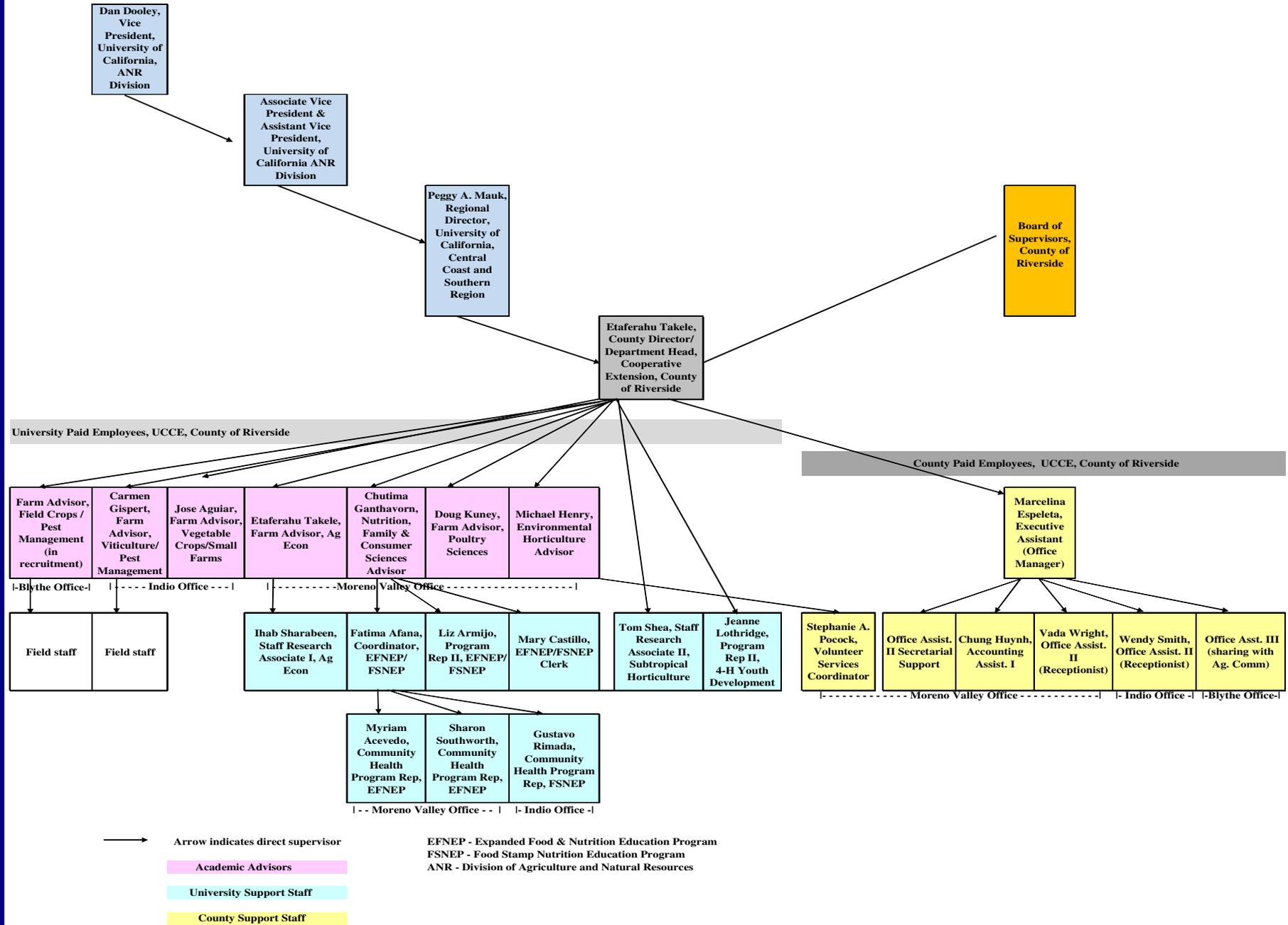
The Citrus Centennial Celebration presents a great opportunity for outreach to the public with information. This year, the UCCE-Riverside County office had four booths at this event. We answered questions on citrus, avocados and other subtropical fruits. Over a hundred copies of our "Questions and Answers to Citrus Management" were handed out to the public.

We also passed out numerous educational flyers with information on some of the new exotic pests that could endanger the California agricultural and landscape industry. These pests include the Diaprepes Root Weevil and the Asian Citrus Psyllid. The UCCE Riverside Master Gardeners, as usual, were involved from start to finish as citrus pickers, washers, slicers and presenters.



*The "Citrus Tasting" booth, with over forty different varieties of oranges, mandarins, tangelos, tangors, kumquats, grapefruits, limes, lemons and specialty citrus, sampled by the enthusiastic public.*

**University of California Cooperative Extension (UCCE), County of Riverside  
Organizational Chart 2008**



→ Arrow indicates direct supervisor  
 Academic Advisors  
 University Support Staff  
 County Support Staff

EFNEP - Expanded Food & Nutrition Education Program  
 FSNEP - Food Stamp Nutrition Education Program  
 ANR - Division of Agriculture and Natural Resources

University of California, County of Riverside and USDA Cooperating.

Visit us at  
<http://ceriverside.ucdavis.edu>  
 &  
<http://www.ucanr.org>

## University Paid Program Support Staff

## County Paid Support Staff

Offices and Staff	Telephone No.	Ext.	Offices and Staff	Telephone No.	Ext.
<b>Main Office-Moreno Valley</b>	(951) 683-6491		<b>Main Office-Moreno Valley</b>	(951) 683-6491	
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Afana, Fatima Coordinator EFNEP/ FSNEP** programs		234	Huynh, Chung Accounting Assistant		238
Lothridge, Jeanne 4-H Youth Development		229	Wright, Vada Receptionist		228
Castillo, Mary EFNEP/FSNEP Clerk		239	Pocock, Stephanie Volunteer Services Coordinator		230
Sharabeen, Ihab Ag. Econ.		227	Clerical Support		241
Shea, Tom Subtropical Hort.		224	<b>Coachella Valley-Indio</b>	(760) 342-6437	
Southworth, Sharon EFNEP		233	Smith, Wendy Receptionist		
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\*EFNEP—Expanded Food & Nutrition Education Program

\*\*FSNEP—Food Stamp Nutrition Education Program

## PROGRAMS PROVIDED BY COOPERATIVE EXTENSION

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<b>Viticulture and Pest Management</b> Carmen Gispert, Advisor	(760) 342-6437		cgispert@ucdavis.edu
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