

**University of California  
Cooperative Extension  
Monterey County**

**2003 Year-End Report**

*Our Mission - Develop and extend the use of  
research-based knowledge to. . .*



UNIVERSITY of CALIFORNIA  
**Agriculture &  
Natural Resources**

**Cooperative Extension • Monterey County**

March 25, 2004

To: The Honorable Monterey County Board of Supervisors:  
Chairperson Louis R. Calcagno, District #2  
Fernando Armenta, District #1  
W.B. "Butch" Lindley, District #3  
Edith Johnsen, District #4  
Dave Potter, District #5

At the recent UC Agriculture and Natural Resources listening sessions held in 5 different venues throughout the state, the top leaders of the University of California heard from over 500 attendees that the number 1 asset of Cooperative Extension is its county-based advisors. As Cooperative Extension's leaders develop a more streamlined and responsive organization, honoring constituents' desires for a strong county-based system will be part of their plan.

Strong support for Cooperative Extension was also demonstrated this month by the California State Association of Counties (CSAC) Board of Directors. They approved a new policy statement: *"Support full funding for Cooperative Extension given its vital role in developing research-based information and education programs that enhance economic vitality and the quality of life in California counties."*

We are researchers and educators dedicated to the creation, development and application of knowledge in agricultural, natural and human resources. Applying this knowledge for practical solutions to local problems is what we do to improve the local economy, to mitigate the effects of agriculture on the environment, and to improve the quality of life for youth, consumers, and communities.

In times of fiscal difficulties, it is important to recognize the significant contributions that Cooperative Extension makes to the economy while using comparatively few County dollars. The County makes a wise investment in Cooperative Extension because for every \$1.00 it provided in 2003, another \$5.50 was generated for Monterey County, creating jobs for residents, business for local companies, and hundreds of volunteers who serve their respective communities.

We help generate money, but also help save money. Our youth and nutrition programs help save dollars by engaging youth in positive, community-building activities. Our nutrition programs show youth and adults ways to improve their quality of life and health, thereby reducing demand on the county's health care systems.

We consider ourselves key players in helping to lead the County to more prosperous times.

Sincerely,

Sonya Hammond, County Director  
University of California Cooperative Extension  
Monterey County

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# FUNDING

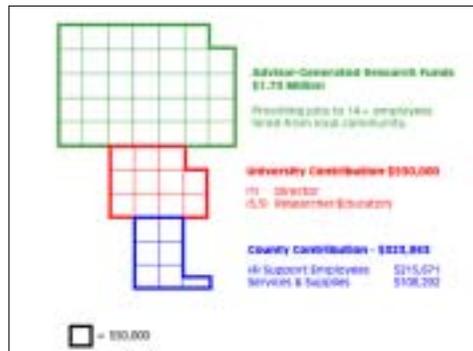
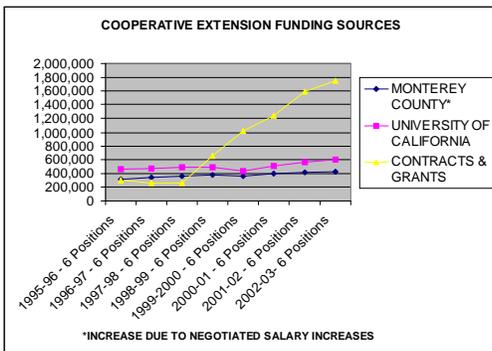
## Direct Funding 2003-04

Operations are funded from a variety of sources. This cooperative arrangement relieves any one funder from having to bear the entire cost of the programs, and each funding source is highly leveraged.

### DIRECT FUNDING 2002-03



Over the past 10 years, the advisors have generated outside funding for research in Monterey County in the amount of \$8,294,065.



The research dollars generated are used to solve local issues. The money creates local jobs and is spent at local businesses for supplies and equipment needed to conduct the field and laboratory research. While advisors have increased grants nine-fold over the past five years, county-paid support staff has remained at six through increased efficiency and excellent team work.

## The Value of Volunteers

The value of volunteer time cannot be overstated. There are 458 adult 4-H volunteers in Monterey County who devote an average of 5 hours per week to the development and education to over 900 youth in Monterey County. The University of California Master Gardeners of Monterey Bay volunteered a total of 4,200 hours in service to Monterey and Santa Cruz Counties in return for the extensive training they received - primarily from University of California Cooperative Extension Farm Advisors. This work would have cost over \$100,000!

Based on research conducted by Independent Sector, the value of one volunteer hour in 2002 (the most up-to-date figure available at printing) was \$16.54. So, local Cooperative Extension volunteers generated over \$100,000 in services.



# COOPERATIVE EXTENSION

*"We discover so we may share."*

**L**ocal County advisors work closely with scientists from the public and private sectors and with regulatory agencies to tailor programs that address local issues.

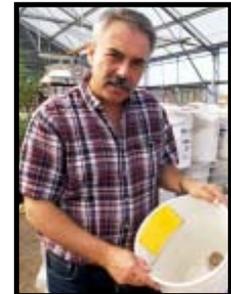
- 1) Identify the local problem
- 2) Develop local solutions
- 3) Broadly extend relevant information

**In 2003 our Advisors made over 110 educational presentations. They conduct research and educational efforts in the areas**

The Cooperative Extension model has proved, since 1918 in Monterey County, that the University-County collaboration is good for the local economy, environment, and people of the county.

**William E. Chaney, Ph.D.**  
**Farm Advisor, Entomology**

Bill works with farmers and pest control advisors to minimize insect damage through the use of integrated pest management practices.



**Larry Bettiga**  
**Farm Advisor, Viticulture**

Larry works closely with the winegrape industry researching and evaluating vineyard practices to improve economic productivity of area vineyards, and to protect our estimated 40,000 acres of winegrapes from disease and insects.



**Michael D. Cahn, Ph.D.**  
**Farm Advisor, Irrigation Efficiency and Water Policy**

Michael conducts research that promotes water savings and lessens impacts of irrigation and fertilizers on the environment in ways that maintain productivity.



**Richard Smith**  
**Farm Advisor, Weed Management**

Richard evaluates economically viable and environmentally acceptable weed control techniques. Techniques include evaluation of new, more environmentally friendly chemicals, precision cultivation and suppression of weeds with cover crops.



**Integrated Problem Solving**

Having a local core team of scientists in various disciplines allows them to work together in solving complex issues, such as soil health and nutrition, insect vectored-plant diseases, and production changes that impact pest management.

**Steven T. Koike**

**Farm Advisor, Plant Pathology**

Steve conducts careful field and laboratory assessments of diseased plants which promotes the early detection and treatment of plant diseases, thereby preventing the spread of plant diseases and decreasing the need for chemical intervention.



The Monterey County UCCE office offers an extensive diagnostics service to growers and the community.

**Richard Smith**

**Farm Advisor, Vegetable Production**

Not all problems associated with crops are caused by an insect or disease. Richard spends a significant amount of time researching solutions to growers' problems caused by abiotic and physiological disorders.



Richard studies plant/soil/nutrient interactions, and also researches the adaptability of new and niche market varieties and commodities.

**Lynn Schmitt-McQuitty**

**Youth Development Advisor**

Lynn provides research-based leadership and capacity building curriculum and programs for teachers and other providers of youth services.



**Additional Expertise** Advisors in the adjacent counties provide cross-county services in the areas of:

**Kathleen Nolan**

**Nutrition Education Program Manager**

There is a logical continuum from food production to food consumption. Kathleen conducts Monterey County Cooperative Extension's nutrition programs, promoting healthy eating and activity, especially for youth, at-risk, and underrepresented groups.



*Environmental Horticulture  
Strawberries and Caneberries  
Rangeland Management & Natural Resources  
Pomology  
Agricultural Economics  
Livestock*

**Richard M. Starr, Ph.D.**

**Marine Advisor**

Rick helps identify and solve resource use issues in coastal and marine environments. He applies and transfers research information to solve practical problems for a wide variety of commercial businesses as well as recreation, education, and conservation user groups.



## CONTRIBUTING TO THE ECONOMIC VITALITY OF MONTEREY COUNTY

Over 1,200 samples were brought into the office by commercial agriculture, homeowners, pest control companies, and other institutions for identification and treatment advice, i.e., wood destroying pests such as termites, and pests that attack oak trees, such as the Oak Moth. In 2003, the Oak Moth attacked hundreds of live oak trees on the Monterey Peninsula.

A new pest is introduced into California every 60 days on average. Many of these "exotic" pests and diseases or invasive species, become established and cause billions of dollars in damage to California's urban, agricultural, and natural environments.

Agriculture is the #1 driver of our economy. The \$3 Billion agricultural industry contributes another \$9 to \$15 Billion to our economy in the way of secondary activity, such as cartons, equipment, inputs and so on.

### Preventing Crop Loss

In 2003 Cooperative Extension advisors helped prevent economic losses due to insects and disease, such as:

⇒ **Sudden Oak Death (SOD)**

Our pathology program continues to collaborate on local and statewide efforts to control this damaging forest disease. Local UCCE researchers are also trying to find ways to protect nursery crops that are susceptible to the SOD fungus.



⇒ **Potato Psyllid**

Potato Psyllids reduce plant vigor and contaminate harvested peppers with sticky honeydew. This pest was seen in many fields last season in very high numbers.



⇒ **Lettuce Aphid**

This pest requires continued research on new methods growers could use against the lettuce aphid, a serious pest of lettuce and another insect that causes problems for those growers trying to export their product. The entomologist helped organic growers determine which beneficial insects could help them control their aphids by identifying the key species of hoverflies important in controlling aphids in local fields.



⇒ **Glassy Wing Sharpshooter**

The insect transmits Pierce's Disease. Once infected, a vine is not likely to recover and the disease spreads quickly. The vineyard business was almost lost in some Southern California counties due to Pierce's Disease - Cooperative Extension was part of a strong collaborative effort that came together to prevent such losses here.



⇒ **Vine Mealy Bug**

Timely identification of vine mealybug, followed with training for industry and Agricultural Commissioner personnel to track its presence is helping to prevent the spread of this harmful grape vine pest.



⇒ **Symphylan**

These pests are small soil inhibition pests that are causing increasing damage to a variety of vegetable crops. Their damage is usually to direct seeded crops after emergence, or to transplants just after transplanting. Heavy Symphylan pressure often results in total crop loss in small areas of the field over several crop cycles. Our research is aimed at finding an alternative to the insecticide currently used which is broad spectrum and marginally effective.



⇒ **Romaine Lettuce Basal Rot**

Our UCCE staff identified the new romaine disease that is causing crop loss in the Central Coast area. Research is now examining ways to manage this new disease, Phoma basal rot.



⇒ **Disease Management Program - Spinach**

Monterey County is home to the largest spinach producing industry in the state. Research on spinach diseases is a strong program for UCCE in Salinas, and we are the only researchers in the state studying these problems.



⇒ **Lettuce Mosaic Virus**

This seed-borne disease attacks lettuce and, if allowed to infect an area, can spread quickly into adjoining fields, causing dramatic crop losses. The seed and lettuce industries, Agricultural Commissioner, and Cooperative Extension conduct a program that prevents infected lettuce seed from being planted. Our laboratory tests every lot of lettuce seed planted in the county and if even one seed among 30,000 has the disease, that lot of seed is not allowed to be used.



***Phylloxera*** - This soil insect has killed many acres of grapevines in the Napa area and continues to cause decline and loss of productivity in the older own-rooted vineyards in Monterey County. By identifying grape rootstock that will be resistant under local conditions and extending the information to growers, the county is able to maintain healthy vines which stay relatively free of phylloxera.

Our entomologist provides technical training to the staff of the Agricultural Commissioner's Office helping them to learn to identify key pests of lettuce and other vegetable crops.

Our Cooperative Extension laboratory tests every lot of lettuce seed planted in Monterey County for the presence of LMV.

## Reducing Costs

UCCE has developed cost studies for lettuce, broccoli and cauliflower, and is developing cost studies for organic vegetables.

*It is essential to our industry to have local experts that are always available and can solve important problems in a timely manner that are specific to our growing region. To not have the local Extension staff would be a deterrent to our industry.*

*Mark Mason  
Tanimura & Antle Produce*

UCCE staff answer numerous inquiries from small-scale producers on a wide range of topics from pest management, enterprise selection to cultural practices. Staff members give bilingual presentations (Spanish-English) on berry and vegetable production and water quality concerns.

### **Cost Studies**

Cooperative Extension provides farmers with benchmark cost studies to help improve productivity and identify problem areas. The cost studies are also used by lending institutions to process production loans. Most recently, Advisors developed cost studies for:



Organic Leaf Lettuce



Raspberries



Vineyards



Organic Strawberries

### **More Cost Effective Production Methods**

Our staff is investigating new techniques to improve weed control for growers that reduce weeding cost. Techniques include mustard cover crops, precision cultivators and low application rates of more environmentally benign chemicals.



Integrated Pest Management in Floriculture and Nursery Industry - The local flower industry is facing strong international competition, rising energy costs, and pressures to reduce environmental impacts of flower farming. Cooperative Extension has shown ways to reduce input costs without sacrificing productivity.

### **Helping Small Scale Farmers**

Cooperative Extension increases the chance of economic viability for the limited-resource farmer. Some of the resources made available:

- ⇒ Educational meetings
- ⇒ Headsets for simultaneous interpreting at meetings
- ⇒ Support for entry-level growers
- ⇒ Central Coast Family Farm Newsletter
- ⇒ On-farm consultation and assessments
- ⇒ Disease and pest diagnosis and control options
- ⇒ Bilingual publications
- ⇒ Redberry Mite Control in Blackberries - Damage from this pest results in blackberry fruit which does not ripen correctly. Crop losses can be significant.



Many of the blackberry farmers are small scale and limited resource farmers. The strawberry farm advisor developed effective control rotations which are now being adopted by growers.

## **Assistance to Transitional and Organic Growers**

**T**he widespread interest in organic production has created a demand for information on alternative production techniques. The advisors are constantly evaluating new techniques, products, and technologies that help growers deal with pest problems and avoid problems. Research on cover crops has helped reduce some pest problems and improved nitrogen nutrition of crops.



### **Insectary Studies**

**T**he widespread use of Sweet Alyssum by organic growers has been invaluable in helping control lettuce aphid. Research is now underway to see if the addition of this new plant species can increase the reliability of this technique.



### **Managing Soilborne Diseases**

**T**he plant pathology program actively investigates disease control techniques that can be useful for organic growers. Presently, we are focusing on ways to manage soilborne diseases of organically grown spinach. We have also written disease management guidelines for organically grown vegetables and strawberries.



Your local door to resources of the University of California

**Integrated Pest Management - IPM** provides information regarding pests, and pest management <http://www.ipm.ucdavis.edu>

**Small Farm Program** Production and marketing information for farmers who operate small-scale farms <http://www.sfc.ucdavis.edu/>

**Sustainable Agriculture Research and Education Program**

Scientific research and education programs promoting economically viable agricultural and food systems that sustain natural resources, biodiversity, and quality of life for farmers and communities <http://www.sarep.ucdavis.edu/>

**Greenhouse experiments evaluate potential biocontrol agents for control of damping-off disease of spinach.**

## PROTECTING ENVIRONMENTAL RESOURCES

### **Conserving and Protecting our Groundwater**

Cooperative Extension conducts research to identify more efficient ways to use water to help conserve our water supply. Less pumping helps to save water, and helps to reduce sea-water intrusion.

- ⇒ Conducting studies that increase our understanding about the uses and effects of using recovered water for agriculture.
- ⇒ Developing nutrient needs by commodity to determine the minimum amount of fertilizer without jeopardizing yield.
- ⇒ Identifying more efficient use of fertilizers, improving nutrient cycling and trapping with cover crops.
- ⇒ Providing science-based information about the use of insect controls to reduce pesticide use (and the potential for pesticides in runoff water).



### **The Monterey Bay**

A common goal of city residents and farmers is preserving water quality and the sea life in the Monterey Bay National Marine Sanctuary, because our natural resources provide the basis for the farming, fishing, and tourism industries. Cooperative Extension plays an important role in helping farmers and coastal residents meet their goal.



#### **Marine Research and Extension**

- ⇒ Providing technical advice, training and leadership to help governmental agencies, environmental organizations, and resource users develop coastal resource management plans.
- ⇒ Conducting research on rockfish, grouper, and lingcod distribution and abundance to help promote the wise use, conservation, and management of valuable fishery resources. The results of these studies are useful in evaluating and designing marine fishery reserves, and should lead to improved lingcod management.

#### **Facilitating Compliance with the California Marine Life Protection Act**

The California Marine Life Protection Act requires that decisions about marine reserves be based on sound biological information. However, currently relatively little information is available to evaluate nearshore fish populations. In 2003, the Marine Advisor started a project designed to bring fishermen, scientists, and resource agency personnel together to study nearshore fishery resources. In addition to providing much needed information about nearshore species, the project will help bridge the cultural gap that exists between fishermen and California Department of Fish and Game scientists, relative to understanding the differences between fishery dependent and fishery independent data sources.

... teaching growers to use soil moisture measuring devices to prevent over-watering

... determining the effectiveness of sprinkler heads under our windy conditions

*"UCCE is helping the agricultural community find practical solutions to stay in compliance with changing water quality regulations".*

*Daniel Mountjoy, Ph.D.  
Area Resource Conservationist  
USDA-Natural Resources  
Conservation Service*

... developing education programs regarding marine resources and the Monterey Bay National Marine Sanctuary (MBNMS)

... helping promote and coordinate marine research and education among the many marine research institutions in this region

## **Trees**

**T**wo diseases have threatened the tree stands that make up a large part of our scenic heritage. First, pine pitch canker threatened many of our stands of Monterey Pine and other pine trees. The newer disease, Sudden Oak Death, attacks all the local varieties of oak trees and quickly kills the trees. Our advisors have discovered that many other trees and shrubs are hosts. Our advisors contribute to the larger research effort being conducted by the team of University of California advisors and specialists working on this problem. This is just one example of how, through Cooperative Extension, resources of the greater University are put to work for local benefit.



## **Soil Health**

**R**esearch on new cover crops in vegetable production fields and vineyards is discovering ways to control pests and improve the tilth and water penetration, and microbiological communities of the soil thereby improving the soil structure and productivity.

**E**rosion Control Workshops - A grant by the Renewal Resources Extension Act funded two workshops that taught participants how to properly design and maintain rural roads to prevent erosion. The first workshop addressed the specific needs of ranchers and vineyard managers. The second was for public works employees responsible for rural public roads.



## **More Environmentally Benign Chemicals and Practices**

**R**esearch into the newer classes of chemicals called “soft” chemicals is providing farmers with the efficacy information they need. The research results also help to move the legal registration process for these chemicals, allowing the growers quicker access to these new products.

Research into the biology of pest problems helps us to more fully understand the relationships between plant-pest systems. The results are improved ways in which we use pesticides and alternative control measures.

- ⇒ In some cases the use of pesticides can be eliminated if the biology of the pest is studied, resistant cultivars are developed, and other dynamics are researched.
- ⇒ Biological Control Organism - Two parasitic wasps were identified as potential alternatives to chemical control of the lygus bug, a common pest in strawberries. Preliminary data shows promise that the wasps, with proper placement, allow growers to use less chemicals.
- ⇒ In 2003, our entomologist started a new research program to look for ways that growers can use to manage pests that live in the soil. These pests attack a variety of crops - lettuce, celery, broccoli, cauliflower and spinach. These methods will replace previously used chemicals that are being phased out to help protect the environment and the Monterey Bay National Marine Sanctuary.

***Greenhouses - Cooperative Extension conducted programs that educate floriculture and nursery clientele on Integrated Pest Management (IPM) practices and the use of reduced-risk fungicides and non-chemical management approaches.***

***Phosphorus Fertilization - Run off from farms that contains phosphorus is a growing environmental concern. We are evaluating rates and types of phosphorus fertilizers to determine the most efficient application techniques.***

***. . . improved integration of pesticides and biological controls***

***. . . increased use of better, more precise timing***

***. . . reduced number of applications required***

***. . . improved evaluation techniques for biological insecticide effectiveness***

## DEVELOPING CAPABLE CITIZENS AND LEADERS OF TOMORROW

### **S.E.A. Camp – Science Education and Adventure**

**Camp SEA Lab is a marine science camp adventure for youth ages 8-13. Science, Education, and Adventure are the focus as SEA Campers explore the wonders of the marine world from the top of the watershed to the bottom of the deep sea. Each day, the mysteries of the oceans are revealed through hands-on activities above, beside, and below the water's surface.**

For the past two decades, the United States has experienced a well-documented decline in the quality of science education. Mean Scholastic Aptitude test scores have declined for all ethnic groups, gender and racial differences in mathematics and sciences have increased, and as a result, teachers have experienced increasing difficulty maintaining proficiency in science literacy. For this reason, the Marine Advisor has been working with leading educators, business people, scientists, researchers, and resource managers in this region to establish a national ocean science camp for children. The vision is to develop a venue that utilizes community resources to provide children with an appreciation for science, resource conservation, and potential marine related careers. The camp will provide a year-round, high quality marine science education experience within a camp setting for middle school and high school-aged children.



### **4-H Youth Development**

Under the leadership of the Youth Development Advisor, 458 adult volunteers throughout the county help guide and direct the activities of 1,028 youth from the ages of 5-19 in the 4-H program. There are 24 clubs scattered throughout the county.

The Youth Development Advisor is a resource to the club program, as well as to youth-serving agencies and organizations seeking scientifically based knowledge about the field of youth development.

In the process of developing leadership, citizenship and life skills, youth in 4-H have fun. They are supported by caring, enthusiastic adult role models who facilitate experiential learning activities which create opportunities for youth to be actively engaged in their own learning. The meetings are run by youth officers who are elected by their peers.



**The 4-H Youth Development Program instills in youth the importance of values and ethics. The *Code of Conduct* and the *4-H Pledge* are cornerstones of developing life-long character.**

Besides overseeing the club-based activities, the Cooperative Extension Youth Development Advisor has:

- ⇒ Developed a resource guide entitled “Youth Community Science Education” which outlines over twenty science, technology, natural resource education and garden-based learning and educator training resources. Since the development of the guide in 2001, 7 after-school sites and two community-based organizations have participated in staff development and training to implement science-based programs to youth throughout Monterey County.
- ⇒ In collaboration with other UC Advisors and Specialists, developed a training program on designing experiential learning programs for youth which has been used by youth development professionals and volunteers.
- ⇒ Worked to increase the capacity of environmental educators state-wide to work with and serve culturally and ethnically diverse audiences.
- ⇒ Trained summer staff from the Child and Youth Services program at Fort Hunter Liggett Army Reserve Base to deliver four science-based curricula. Then, a 10-week program provided 49 K-12 youth with opportunities to engage in hands-on gardening/nutrition, forestry, wildlife and water education classes. As a result, youth were reported as having an increased awareness of nutrition and environmental stewardship, positive attitudes, and an opportunity to share their learning with others.



### **Youth Leadership in Action**

- ⇒ Presentation Day - Children gain experience in preparing for and making public presentations and speaking before an audience.
- ⇒ Farm Day, sponsored by Monterey County Agricultural Education, Inc., provides the 4-H members the opportunity to put their presentation skills to work. The members have approximately three minutes to explain to youth grades 3 and 4, the 4-H Program and how it can enrich their lives and be fun at the same time.
- ⇒ 4-H Camp – For a very low fee, youngsters learn an appreciation for nature and the environment, responsibility away from home, working as a team and developing good citizenship skills.
- ⇒ Conferences - From an early age, participants have many opportunities to learn progressively complex skills in leadership, independence, representation, and participation in group governance and project implementation. Mini- Conference (4<sup>th</sup> - 6<sup>th</sup> grade); Leadership Getaway (7<sup>th</sup> - 8<sup>th</sup> grade); LCORT (Leadership Conference of Regional Teens) (7<sup>th</sup> - 9<sup>th</sup> grade); State Leadership Conference (high school aged youth)
- ⇒ Valuing Diversity - Recognizing the need for leadership that appreciates and makes the best use of our culturally diverse population, the 4-H Youth Development Program stresses the importance of recruitment and inclusion of youth and volunteers who represent our ethnic and cultural richness.



***“Using Teens as Teachers in the Youth Experiences in Science Program has provided our children with someone to look up to as role models, and has provided the Teen Teachers with increased confidence, enhanced speaking skills, improved problem solving techniques and a positive attitude.”***

*Patsy Oxford, Site Director  
Marina Vista  
Under The Big Top*

***“My time in 4-H was probably most rewarding in terms of the values that were learned and the memories made. Whether or not you ended up in the winners circle or not, the memories of working with your projects and participating with friends are everlasting 4-H helps set the foundation and value systems we all use later in our lives.***

*William Tebbe  
Sr. V.P. and Regional Manager*

## **Advocacy for Better Nutrition**

***"When I think about what 4-H has done for me, I realize that it was such a HUGE part of my life. 4-H taught me the confidence I needed to earn a Masters Degree in Education. 4-H taught me to be a good public speaker, as well as the skills needed to supervise a classroom of 20 children when I was teaching 2nd grade. I am now the Deputy Manager of the Monterey County Fair, as well as the Community Leader of the Buena Vista 4-H Club. Each day, whether it be planning an event or working with staff members, I think about 4-H and what it has done for me. I encourage every member to take full advantage of what the 4-H program has to offer!!!"***

*Kelly Baldwin  
Deputy Manager  
7th District  
Monterey County Fair*

**F**ast Food High School is a fotonovela about themes that are important to us all – food, personal choice and being cool. It was acted and scripted by students at Soledad High School, in Monterey County. Their work actively benefited these and other students, and the adults in their families and surrounding community. *Fast Food High School Español* is also available. The project is funded by California Food and Fiber Futures: Food Diet and Health Action Project. Students learned that research projects can lead to change at the community level.



## **City Commendation**

**S**oledad High School students were honored by “Resolution No. 3303 of the City Council of the City of Soledad commending and congratulating” them “for their participation in the *Fast Food High School Fotonovela Project*”.



## **Career Leadership**

**F**arm Advisors host teaching visits from high school and college classes (undergraduate and graduate). They provide learning opportunities as well as increase awareness of Monterey County’s complex agricultural industry.

Internships, summer employment and entry-level jobs which Cooperative Extension offers have in many cases led to young people’s career advancement in the field of agriculture. We are proud of our record in employing a diverse, talented pool of young people and supporting their career goals.

## **Advisors Providing County and Community Services**

- ⇒ Advisors have contributed to the display development at the National Steinbeck Center's new Valley of the World agricultural wing, to the Ag Forum series, and have participated in training the Valley of the World docents.
- ⇒ Advisors serve as Science Fair judges, and judge areas of the Salinas Valley and Monterey County Fairs.
- ⇒ Advisors have been consulted in their areas of expertise by other county and city departments such as the Parks & Recreation, Public Works, Agricultural Commissioner, CDEA, USDA, Public Health, Environmental Health, Water Resources Agency, City of Carmel-by-the-Sea, City of Salinas, City of Monterey, Hartnell College, Monterey Peninsula College, Cal-State University Monterey Bay, and UC Santa Cruz.
- ⇒ The County Director was appointed by the Governor to serve on the Board of Directors of the State of California State Fairs and Expositions.

# IMPROVING THE QUALITY OF LIFE

## Nutrition Literacy

**P**opular culture encourages eating a lot of high calorie foods and avoiding adequate exercise – practices that foster obesity and chronic disease that can cause death or disability. Cooperative Extension (CE) steps in to help families resist these trends. As part of its mission, Cooperative Extension provides nutrition education programs to the general public with the goals of promoting better nutrition and advocating physically active lifestyles.

One of the strategies used to achieve these goals is to deliver high quality, science-based education that increases knowledge, improves attitudes, and builds skills directed at reducing the prevalence of childhood obesity.

**T**he Monterey County *Family Nutrition Education Program* provides free curriculum to schools, trains volunteers to provide nutrition education to community members, and participates in projects that improve health literacy and help youth develop good nutrition and fitness habits.

- ⇒ UCCE Youth Nutrition Education Program is for teachers, youth program coordinators, staff and counselors who work with families on a budget. UCCE offers free on-site workshops to faculty or staff, free ongoing program support and free curriculum, fully aligned with current State standards.
- ⇒ The *Nutrition Resource Library* provides videos, books, tri-fold displays and teaching aids.
- ⇒ UCCE's free nutrition and health classes are for any groups that serve low-income clientele. Videos, menu-planning and other hands-on activities demonstrate that nutritious food can be inexpensive and simple to prepare as well as delicious. Families learn about the foods needed for a healthy life; how to get the most from a food-buying dollar; prevent food-borne illness; or prepare the most healthful versions of favorite foods as quickly and inexpensively as possible.

## Volunteer Training and Support

- ⇒ The Community Trainers in Nutrition Program is for volunteers whose clients benefit from classes that build skills in cost-effective food purchasing, food safety and nutritious meal planning. Training includes one full-day inservice, four follow-up tutorials on specific subjects, and four hours of student teaching.
- ⇒ Graduates use UCCE's special menus for the prevention of illness, low-cost nutritious recipes and tutorials to get the message out to seniors, pre-school or migrant education parents, teen parents and persons in recovery.



The adult newsletter, *Favorite Family Food*, is a bilingual publication that is published on alternate months, and offers recipes, news and nutrition and food safety information in an interesting, reader-friendly format.

The youth newsletter, *Edible Express*, is a quarterly publication offering classroom activities, nutrition and food safety news items and showcasing local teachers using UCCE nutrition curriculum.

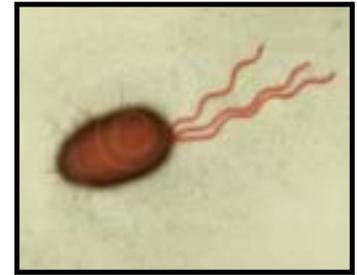
## Multiplying Our Outreach

Another strategy used to achieve UCCE's goals is to organize community groups that support enjoyable healthful eating, physical activity, and a positive self-image.

# FOOD SAFETY AND QUALITY

## Food Safety

Our UCCE pathology lab is collaborating with UC Davis researchers in food safety research. We are learning how to sample and test for harmful micro-organisms that might contaminate food and water sources. Equipped with this expertise, we will be able to conduct research in the food safety area and provide additional services to the agricultural industry.



## Exports

Our entomologist has also been working with vegetable exporters on a problem with thrips, a pest that attack a variety of crops, and can lead to the rejection of our product upon arrival in overseas markets. Many of these importing countries have very strict regulations about the importation of products that contain any live insects especially ones like the thrips that do not currently occur in their countries.



Research is also being conducted by our entomologist on new methods growers could use against the lettuce aphid, a serious pest of lettuce and another insect that causes problems for those growers trying to export their product. Our entomologist helped organic growers determine which beneficial insects could help them control their aphid pests by identifying the key species of hoverflies important in controlling aphids in local fields.

## Bio-Terrorism

The agricultural production sector has been identified as uniquely vulnerable to bio-terrorism attacks that could spread fear and far-reaching economic impacts. Numerous agencies, universities, agricultural associations, and industry are coordinating systems for security and defense, rapid recognition of an attack, and rapid economic recovery.

The Department of Homeland Security operates the Office for Domestic Preparedness (ODP) which is responsible for enhancing the capabilities of jurisdictions to prepare for and respond to incidents of domestic terrorism.

Cooperative Extension staff participated in training and evaluating the new ODP module on agricultural vulnerability assessment. Cooperative Extension's input also helped local emergency service providers acquire more Federal funding for emergency response planning and equipment that now includes agriculture.



**In the U.S., an estimated 76 million illness and 5,000 deaths are linked to food-related illness. Food safety concerns, whether from microbial pathogens, environmental toxins, groundwater pollutants, sewage biosolids, or other sources are the number one consumer issue facing agricultural producers and processors.**

*Trevor Suslow  
Cooperative Extension  
Vegetable Crops Specialist  
Postharvest Pathology  
UC Davis*

**Top commodities exported from Monterey County include: lettuce, broccoli, value-added products, celery, strawberries, cauliflower, spinach, salad mix, and tomatoes.**

**Major export countries include: Canada, Japan, Taiwan, Mexico, Hong Kong, and Singapore.**

## VOLUNTEER DEVELOPMENT AND COMMUNITY SERVICE

Two volunteer programs conducted by the University of California Cooperative Extension, are 4-H and the Master Gardener Program. Both have a strong community service component. These volunteers, adult and youth, contribute over 6,400 hours to community enhancing activities for the equivalent of \$100,000+ in generated services for Monterey County.

### Master Gardener Program

Master Gardeners of Monterey Bay have been in existence for nine years, each year offering their time and expertise to different public service projects. A couple of their local projects include:

- ⇒ Monterey Regional Waste Management District - The landfill in Marina includes a quarter acre demonstration garden, including a butterfly garden, a native plant garden, a vegetable and herb garden, and a greenhouse. The goal of the garden is to teach school groups about organic gardening as well as composting, and re-use of hardscape and woodchips.
- ⇒ The Beach Garden Project is part of the Monterey Bay Dunes from the former Ft. Ord to Monastery Beach in Carmel. The goal is to grow and plant native, site-specific seedlings to restore sand dunes around the Monterey Bay.

### 4-H Youth Development

Adult volunteers provide Monterey County youth with attention and guidance at a critical stage in their development. Youth contribute to valuable community projects, while learning social responsibility.



**Quilt-a-Thon** – In its seventh year, the County-wide 4-H project has made a difference to the community through the Women's Crisis Center and the Monterey County Foster Parent Agency - filling a void when the majority of the visitors have nothing. It is a project that establishes a win/win situation for both the 4-H'ers and the recipients. Shere Machado, a Volunteer Leader in Spring 4-H has been with the 4-H Youth Development program for 13 years

enabling the youth of Monterey County to acquire the self-esteem they need in order to be better people for their *"club, community, country, and world."*

4-H members are taught to take pride in their community. 2003 brought the perfect partnership with Aromas 4-H, the Aromas Boy Scouts and Cub Scouts, and Graniterock. As part of a reforestation project, the team worked together planting redwoods to enhance a visual buffer between the quarry and the Aromas community, and along the Pajaro river. As a by-product, Aromas 4-H has earned money selling the pre-planted trees at their annual Aromas Days, then following up with their sale by actually going to the customer's home and planting the trees. This project has not only earned them money, but more importantly pride and self-esteem in "doing for others".



**The Master Gardeners of Monterey Bay Hotline is staffed on Monday, Wednesday and Friday from 8:30AM - 12:00 PM, except holidays. The Hotline office is located at the UCCE in Watsonville and can be reached at 831.763.8007.**

***"People tell me it will take a long time for the trees to mature, but the quarry has been here for over 100 years and we'll be here for at least another 200 years,"***

***Jim West, Graniterock***

## OUR FACILITY IS A RESOURCE TO THE COMMUNITY

**W**e share our classroom with the community. In 2003, approximately 51 agencies, cooperatives, commissions, associations, local non-profits, local, state, and federal agencies utilized our facility for over 400 classes, employee safety trainings, public information meetings, and gatherings.

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Visit us at [http://  
cemonterey.ucdavis.edu](http://cemonterey.ucdavis.edu)

Our website offers newsletters, events calendars, and useful links to other University of California services.

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(\*County General Fund)



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