



University of California Agriculture and Natural Resources

UCCE Central Sierra

Serving Amador, Calaveras, El Dorado and Tuolumne counties

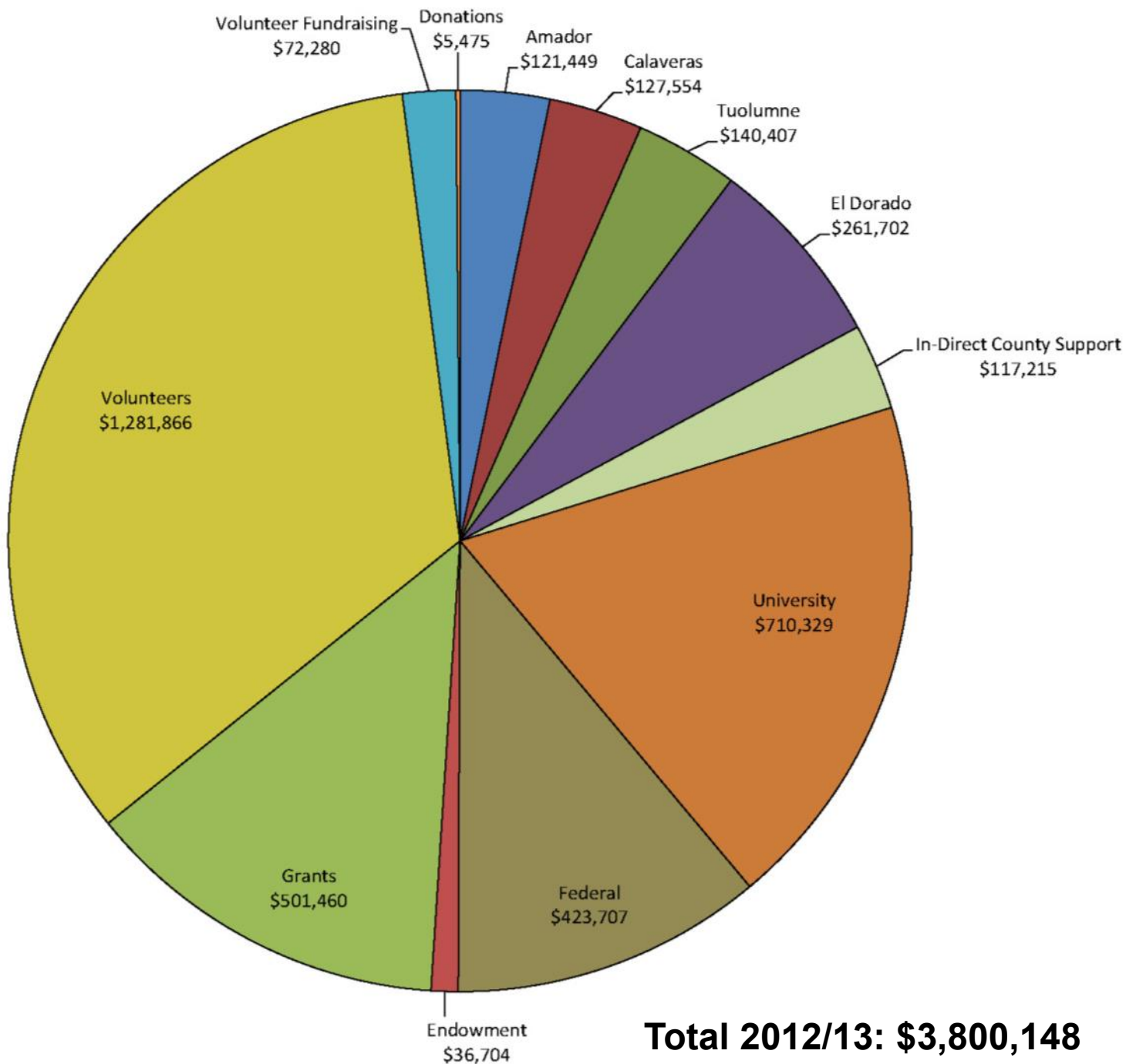
Annual Report 2012 - 2013



*Serving California residents in delivering research and educational programs in:
Agriculture, Nutrition, Youth Development, and Natural Resources since 1914.*

University of California Cooperative Extension Central Sierra

Serving Amador, Calaveras, El Dorado and Tuolumne counties



The University of California working in cooperation with County
Government and the United States Department of Agriculture



Special points of interest:

- 100 Years of Cooperative Extension: The Smith-Lever Act Centennial
- Programs in the Central Sierra
- Highlights of Services

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Highlights of Cooperative Extension 2012 – 2013

Cooperative Extension's goal is to solve problems and resolve issues for the citizens of Amador, Calaveras, El Dorado and Tuolumne counties. Some of this year's major accomplishments include:

- **UCCE Central Sierra** continues to be the **first** and **only** Multi-County Partnership in the state. Formed in July 2011, this new organizational structure for UCCE has saved both participating counties' and University funds while putting additional savings back into local programs. There are other MCPs slated to form during the next fiscal year while learning from the Central Sierra on how to best restructure.
- Conducted research and developed programs in the areas of natural resource management, forest stewardship, fire and fuel management, integrated pest management, agricultural sustainability and profitability, weed management, youth development, nutrition, food safety and food preservation.
- **87** Master Food Preservers taught 40 free classes.
- **407** Master Gardeners taught 102 free classes.
- **380** 4-H leaders taught and mentored **1,409** youth in the 4-H program.
- Acquired **\$501,460** in grants for work in nutrition, natural resources, agriculture, and youth development in the Central Sierra.
- **874 volunteers** in the 4-H, Master Gardener and Master Food Preserver programs **volunteered 63,302** hours for a value of **\$1,281,866**.

100 Years of Cooperative Extension: The Smith-Lever Act Centennial

May 2014 will mark the 100th anniversary of the Smith-Lever Act, legislation that created Cooperative Extension, a nationwide system of community-based education, established as part of each state's land grant university. Cooperative Extension was started to help farmers, homemakers, and youth use the latest university research to improve their lives. At first geared towards strengthening rural areas, Cooperative Extension became integral to urban and suburban communities as well. A century later, Cooperative Extension continues to provide a vital link between public universities and communities.



University of California Agriculture and Natural Resources

100 Years of Cooperative Extension

Cont. pg.3 100 Years of Cooperative Extension

The Cooperative Extension system was built on the foundation of state land-grant colleges, created by the 1862 Morrill Act, signed into law by President Abraham Lincoln. The Morrill Act gave each state a grant of land to establish a college that would teach practical subjects such as agriculture and engineering. As envisioned, a key role of land grant institutions was to develop knowledge that would help farmers produce enough food and fiber to meet the needs of a growing nation. Additional legislation, the 1887 Hatch Act, provided land-grant colleges with funds to develop agricultural experiment stations where research was conducted. However, until the passage of the Smith-Lever Act, there was not a consistent way of getting important research-based knowledge from the campuses out to the communities that needed this information.

Authored by Senator Hoke Smith of Georgia and Representative Asbury Lever of South Carolina, the Smith-Lever Act was the culmination of years of advocacy by farm groups and others who believed that rural Americans needed more opportunities and education in order to sustain a vibrant American economy and democracy. Training for farmers on improved agricultural practices was core to this ideal. While there was widespread agreement that a national system of extending agricultural knowledge was necessary, there was less agreement on how to create such a system. Quite a few similar bills had already failed when Sen. Smith and Rep. Lever worked out a successful compromise.

The two legislators developed their bill to create a historic partnership between land-grant universities and the United States Department of Agriculture (USDA). The universities would manage agricultural extension in each state, with guidance from USDA. In addition to providing federal oversight, USDA had an important role to play in formulating the new system. Beginning in 1903, they had developed an innovative system of



farmer education known as the Farmer's Cooperative Demonstration Program. Founded by USDA educator Seaman Knapp, this program was based on farmer-led demonstrations, and was popular and successful throughout the south. Knapp's program placed an educator, or "agent," in counties to work with farmers and support their on-farm demonstrations. Smith and Lever's compromise ensured that the county-by-county demonstration method pioneered by Knapp and USDA would become integral to the extension system to be developed by the land-grant universities. The Smith-Lever Act was signed by President Woodrow Wilson on May 8, 1914, and soon, each state's land grant university was organizing Cooperative Extension, or formalizing existing efforts.

In California, efforts were already underway to create an agricultural extension system, building on the success of the state's land grant, the University of California. The first UC campus, at Berkeley, had agriculture as an important early focus, and in 1907, a university research

Our Staff

Director



Scott Oneto

Director/Agriculture & Natural
Resources Advisor

Advisors



Susie Kocher

Forestry/Natural Resources Advisor



Dorothy Smith

Nutrition, Family & Consumer
Sciences Advisor



JoLynn Miller

4-H Youth Development Advisor



Lynn Wunderlich

Farm Advisor

Emeritus

Dan Desmond

4-H Youth Development Advisor

Administrative & Program Support



Stacy Arhontes

Assistant II
CalFRESH Program



Robin Cleveland

Assistant II
Agriculture, Master Gardener &
Master Food Preserver Program



Chelsey Otterman

Student Assistant



Becky Sansoni

Fiscal Manager



Nancy Starr

Assistant II
Agriculture, Natural Resources &
4-H Youth Development Program



Sandra Sturzenacker

Assistant II
Natural Resources, Nutrition, Master
Gardener & 4-H Youth Development
Program

Program Staff



Gretchen Birtwhistle

Nutrition Educator - Tuolumne
CalFRESH Program



Tracy Celio

4-H Youth Development Program
El Dorado County



Melanie Ann Curtis

4-H Youth Development Program
Tuolumne County



Jennifer Goerlitz

4-H Youth Development Program
Calaveras/Amador County



Kim Ingram

Natural Resources Program
Sierra Nevada Adaptive
Management Project



Anne Lombardo

Natural Resources Program
Sierra Nevada Adaptive
Management Project



Kathy Martinez

Nutrition Educator - El Dorado
EFNEP Program



Rebecca Miller-Cripps

Natural Resources Program



Sue Mosbacher

Master Gardener/Master Food
Preserver Programs
Amador & El Dorado Counties



Debbie Powell

Master Gardener Program
Calaveras & Tuolumne Counties



Novella Springer

Nutrition Educator - Amador
CalFRESH Program



Valerie Vasile

Nutrition Educator - Calaveras
CalFRESH Program



Wendy West

Lake Tahoe Basin Master
Gardener Program/Natural
Resources Program

Agriculture

Program Overview

- Provide agricultural producers with the latest in research based information, problem solving tools and technical assistance.
- Farm Advisors are in charge of establishing research and education programs that meet the agricultural needs of farmers in the Central Sierra region.
- Programs emphasize collaboration with UC Specialists, growers, and local organizations to conduct relevant research in the foothills and deliver tools for growers to improve their crop quality while conserving resources.

Research Projects and Outreach

Powdery Mildew Weather Stations

Powdery mildew is the main disease affecting grapes grown in the foothills. Grape growers use a variety of methods to prevent powdery mildew disease which can significantly decrease grape and wine quality.

The powdery mildew pathogen thrives when temperatures are 70 -85°F. A model using canopy temperatures to predict powdery mildew disease development has been developed by UC Davis. In collaboration with growers, wineries, Amador County Wine Grape Growers Association, UC Davis and UC Integrated Pest Management, **UCCE has helped install two powdery mildew forecast stations** in the foothills. The information is available “real time” at the UCIPM website: <http://ucanr.edu/grapepowderymildew>



Lynn Wunderlich at one of her weather stations.



A powdery mildew weather station in Amador.



UC Soils Specialist, Toby O'Geen, speaking at a UCCE field day.

Understanding Foothill Soils for Improved Management

Soils in the foothills are diverse. Soil properties such as depth, water holding capacity, and nutrient content affect farmers decisions for planting, rootstock choice and fertilizing. Working with UC Soils Specialist Toby O'Geen, **UCCE is delivering information to farmers on how to improve their soil management.**

Better Weed Control with less Herbicide Drift

Satisfactory weed control using herbicides depends on good coverage; but many times farmers need to be cautious about herbicide drift into nearby areas. **UCCE helps provide good stewardship of pesticides** by educating growers on the latest technological developments in sprayer technology.



Demonstration of drift control nozzles at a Nozzle Field Day.

Agriculture

Mapping Virus “Red Leaf” Problems in Vineyards

In fall 2012, a “new” (previously unidentified) virus affecting grapes known as “Red Blotch” disease was identified by USDA and Cornell researchers. The disease can cause problems with sugar accumulation in grape berries, decreasing quality. **UCCE plans to help local growers understand the prevalence of this virus in the foothills** by testing symptomatic grapevines and monitoring for suspected virus vectors, particularly the Virginia Creeper Leafhopper.



A grape leaf with disease symptoms.



UC Davis Biometeorologist Rick Snyder installing radiation sensor equipment in a foothill vineyard.

Estimating ET on Slopes for Irrigation

Evapotranspiration (“ET”) is used by farmers to determine when and how much to irrigate their crops. Solar radiation is the main driver for ET and recent research by UC has shown that ET varies with slope aspect. **UCCE is working with UC Davis researchers** on improving the way ET is measured on slopes. Solar radiation measurement tools have been installed on a North and South facing vineyard slope. The measurements and prediction of ET on the slopes will be compared to soil moisture measurements, and plant based measurements. **The goal is to improve irrigation efficiency while possibly improving grape quality.**

Disease Resistance in Christmas Trees

Christmas trees grow well in the foothills, but growers are faced with a number of pest problems. Root rot is a disease prevalent on heavy clay soils and can lead to death of mature and young trees. **Collaborating with Washington State researchers, UCCE is looking for resistance to root rot in Christmas tree species** of Nordmann and Turkish fir.



Phytophthora root rot is a serious disease of Christmas trees grown in the foothills.

Agriculture and Environmental Literacy

Program Overview

- Connect students, teachers and families to hands-on agricultural and environmental stewardship experiences.
- Help students and families make informed decisions about their food choices and health.
- Promote an understanding of the sustainable production of food, fiber, and shelter.

Farm Day

Farm Day is an interactive agricultural and environmental education day held annually, serving third grade teachers and students. UCCE Central Sierra has led the efforts to coordinate Farm Day in both El Dorado and Amador counties. UCCE has also played an active role as a presenter in Calaveras and Tuolumne counties.

UCCE trains volunteer presenters to imbed third-grade California State Educational and Common Core Standards in their presentation content.

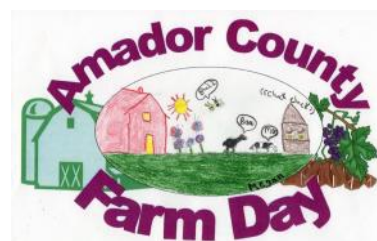
In collaboration with Ag in the Classroom – El Dorado County, 1,016 students attend El Dorado County Farm Day with 52 volunteer presenters sharing their expertise. Forty-two (42) classes from 17 different schools ---from El Dorado Hills to Lake Tahoe --- attended the 2013 event.



Students learn about forest stewardship and timber harvest practices at the Amador-El Dorado Forest Forum stations.

Farm Day in Amador - Huge Success

In 2012, UCCE Central Sierra cooperated with Amador County teachers, numerous organizations, local farmers/ranchers and industry professionals to organize Amador County's first Farm Day. The event hosted nearly 400 students from both public and private schools to teach the diversity of products that are made from agriculture, and the process of getting crops from the dirt into the packaging they see in the supermarkets.



Presenters at the 2012 Amador Farm Day, held at the Amador County Fairgrounds. Pictured from left to right, Jim Spinetta, local grape growers teaches kids about the diversity of grapes grown in the area; Novella Springer and Stacy Arhontes, of UCCE, teach kids about healthy meal choices and proper nutrition; Dorothy Smith, Nutrition Advisor with UCCE engages kids in a My-Plate activity; Lynn Wunderlich, UCCE Farm Advisor teaches kids about growing grapes.

Agriculture and Environmental Literacy



Creating and Sustaining Your School Garden Workshops

A school garden is an innovative teaching tool and strategy that lets educators incorporate hands-on activities in a diversity of interdisciplinary, standards-based lessons. Through the garden, students gain an understanding of ecosystems, an appreciation for food origins, nutrition, and knowledge of plant and animal life cycles. At the same time, they learn practical horticultural skills that last a lifetime. UCCE has recently conducted “*Creating and Sustaining Your School Garden*” workshops for area schools and will provide training at the Lake Tahoe Unified School District Staff Development Day in fall 2013.

Teachers’ Ag Summer Institute

The Teacher’s Ag Summer Institute (TASI), sponsored and hosted by Ag in the Classroom - El Dorado County brings together teachers with farmers, ranchers and other agricultural and natural resource specialists. The goal of the workshop is to gain a deeper understanding of the food and agricultural systems that sustain the health of people, society, and the natural environment.



The three-day institute led by UCCE Educator Wendy West, combines learning stations, hands-on, in the field experiences and sample classroom activities to immerse participants in the vital world of agriculture. Sessions connect the topic of the day with resources and activities to take back to the classroom setting, all meeting California state curriculum standards to ensure ease in incorporating lessons into the classroom. The “Class of 2012” included eleven teachers completing 24 hours of instruction.

Forestry / Natural Resources

Program Overview

- Provides forestry, wildlife, rangeland, watershed management and other natural resource related information to a wide variety of county residents and visitors.
- Promote sound management and conservation of the region's natural resources, through research, educational activities, and good working relationships with a broad range of people.

UCCE Central Sierra Welcomes New Forestry Advisor

Susie Kocher now has a career position as the UCCE Central Sierra forestry and natural resources advisor. For the past six years, she has been grant-funded and serving as UCCE advisor for natural resources focusing on reducing the negative impacts of wildfire from her base in South Lake Tahoe. She holds a Master's degree in forest resources management from the University of Washington and is a California Registered Professional Forester. Susie is involved in a variety of public outreach efforts for forest management research at the University of California and is a founder of the California Fire Science Consortium. She collaborates with fire protection agencies and University of Nevada Cooperative Extension in the Lake Tahoe Basin to coordinate Lake Tahoe Wildfire Awareness Week and the Living with Fire in the Lake Tahoe Basin program. To reach more landowners and resource managers, she has developed the Forest Research and Outreach website (<http://ucanr.edu/forestry>) and the forest stewardship webinar series.



As a new member of the Central Sierra multi-county partnership, she is now serving El Dorado, Amador, Calaveras and Tuolumne counties. Susie is in the process of developing a needs assessment within the Central Sierra region to identify the forestry and natural resource issues of the area. Susie is continuing to coordinate the Sierra Nevada Adaptive Management Project outreach team, which is monitoring the effects of forest fuels reduction projects in two national forests in the Sierra Nevada. Kocher can be reached at (530) 542-2571 and sdkocher@ucanr.edu



SNAMP outreach team: Anne Lombardo, Susie Kocher and Kim Ingram.

Sierra Nevada Adaptive Management Project (SNAMP)

SNAMP is a large interdisciplinary research project on the effects of forest fuels treatments on US Forest Service lands in the Sierra Nevada. One of the goals is to involve the public in adaptive management. In 2012, our outreach team made over 2,098 contacts at 68 public participation events. Events included annual meetings to update stakeholders on the progress of the project, science integration meetings for stakeholders on the research of each science team studying fire, forest health, water, the Pacific fisher, the California spotted owl and people. We coordinated field trips and scientific presentations to local schools. Program representatives Kim Ingram and Anne Lombardo made **25 presentations** this year making **863 contacts** to involve people in the project. The team also posted short videos about forest health, spotted owls, fishers and public participation on the project website <http://snamp.cnr.berkeley.edu>

Forestry / Natural Resources

Weed Management

UCCE Central Sierra continues a leadership role in four collaborative invasive weed management groups: the El Dorado County Invasive Weeds Management Group, Lake Tahoe Basin Weed Coordinating Group, Amador Weed Advisory Group, and the Central Sierra Partnership Against Weeds.

By working in concert, land managers, agencies and private landowners ensure that invasive weed detection, eradication or management, and education projects are coordinated to maximize efficiency and effectiveness throughout the region. Educational workshops coordinated by UCCE include weed identification, yellow starthistle control, woody weed control, medusahead biology and control, tarweed control, and grassy weed control. Regional strategic planning is also a priority area of work as the four-county Central Sierra UCCE region works with the California Invasive Plant Council to understand new invasive weed threats and identify target populations for eradication.



Annual Tahoe Basin invasive weeds training for on-the-ground crews with US Forest Service, California Tahoe Conservancy, Heavenly Valley Ski Resort, and local landowners and managers, June 2013.



Rebecca Miller Cripps, UCCE Program Representative and Dana Morowitz, Cal-IPC Mapping Scientist, map Spanish broom in Groveland, CA.

Spanish Broom Eradication Project - Groveland, CA

Spanish broom (*Spartium junceum*) is a noxious weed that has become widely established throughout much of California. Native to Europe, Spanish broom is one of four broom species that were introduced through the ornamental trade industry back in the 1850s. Now naturalized in many areas throughout the state, these shrubs have the ability to outcompete native vegetation and completely change the natural flora of an area. In conifer forests broom can completely take over the under story and form dense monocultures. The shrubs are relatively short lived (8-15 years) and produce large thickets which can drastically increase fuel loads and potential for catastrophic wildfires.

Although broom occurs throughout much of the Central Sierra, there are still areas where populations are small. One such area lies around the community of Groveland along Hwy 120 in Tuolumne County. Along this 12 mile stretch from the base of Priest Grade Road to Big Oak Flat, Spanish broom only occurs in small isolated patches. Mostly found along the state highway and county roads, the plant is starting to get established on private property and publicly owned property including Bureau of Land Management and US Forest Service. The concern is that without control, the plant will become widely established through the Stanislaus Forest and make its way into Yosemite National Park.

What is UCCE Doing?

This past year, UCCE collaborated with the California Invasive Council to acquire a grant through the Sierra Nevada Conservancy to map Spanish Broom throughout the Groveland area. In addition, the groups are collaborating with County of Tuolumne, Cal-Trans, BLM, and USFS to navigate the regulatory compliance process so that treatments can be made on all of the populations. Once compliance is met, the groups will apply for additional funding to control this invasive shrub.

UCCE also just finished creating an educational video on Spanish broom and the Groveland Project http://www.youtube.com/watch?feature=player_embedded&v=USXX_g0ddv0

Forestry / Natural Resources

Techniques for Controlling Medusahead



Medusahead in bloom.

Medusahead (*Taeniantherum caput-medusae*) is an aggressive exotic annual grass that has become widely established throughout much of California. It is rapidly spreading throughout much of the state infesting nearly 2 million acres.

Medusahead consists of very high silica content making it a non-desirable forage for most livestock and wildlife animals. The high silica also slows the annual decomposition process resulting in an accumulation of thatch that can reach levels of 3-6 inches. The thatch acts as a weed barrier for desirable grasses and forbs, inhibiting their germination and establishment; however medusahead has no problem growing through the thick thatch layer. Overtime,

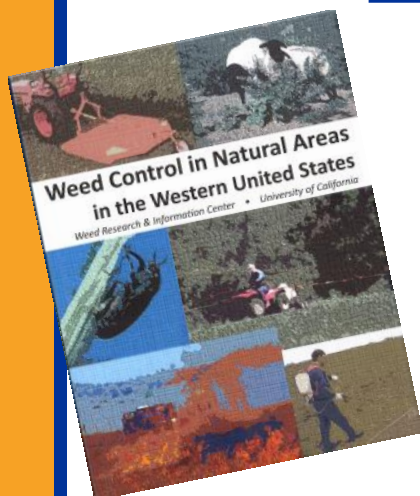
medusahead creates a monotypic stand outcompeting and suppressing all other vegetation.

When it comes to controlling medusahead, much of the work over the past three decades has been on using well-timed grazing, burning, mechanical removal of thatch, and the use of herbicides. One of the challenges with using herbicides has been selectivity. Because of the taxonomic similarity to other more desirable grasses, achieving selective control of an exotic annual grass like medusahead in a predominantly exotic annual grassland has proven challenging.

Over the past three years, UCCE Central Sierra has been collaborating with other UC researchers and industry professionals to test different herbicides for effective control of this noxious weed.



Scott Oneto, UCCE Farm Advisor and Rick Miller, Field Representative Dow Agro Sciences, evaluating a medusahead field in Calaveras County after treatment with aminopyralid.



New Weed Control Handbook

Weed Control in Natural Areas in the Western United States is the first comprehensive book to focus on control options for invasive plants in natural areas. Fifteen authors, including UCCE Central Sierra Advisor Scott Oneto, compiled information on control methods for 340 species in 13 western states, covering rangelands, grasslands, pastures, riparian and aquatic areas. Each species account includes chemical, mechanical, biological and cultural control options, based on literature and the personal experience of the authors. The book can be purchased for \$40 at the local UCCE office.

Forestry / Natural Resources

Water Quality on US Forest Service Grazing Allotments: Report Released

Cattle grazing is an important component of California agriculture and grazing in the high sierras has been an integral part for many ranchers. Over the past few years, increased scrutiny on water quality and the potential impact cattle grazing might have on high sierra meadows and watersheds has prompted University researchers and government officials to undertake a statewide study looking at water quality in the Sierra Nevada.

Starting in 2011, UC Range Specialist Ken Tate, conducted a cross sectional survey of water quality conditions associated with cattle grazing and recreation on 12 U.S. Forest Service (USFS) public lands grazing allotments in northern California. One of the sites was located in the Stanislaus Forest in Tuolumne County.



Cattle grazing in a high sierra meadow on USFS land.



Cattle ranchers and community members talking about the challenges of grazing on USFS lands, Tuolumne County, CA.

Key findings were that nutrient concentrations observed throughout the grazing season were below levels of ecological concern and that all but the most restrictive fecal indicator water quality benchmarks were broadly met. The results of the study do not support previous concerns of widespread microbial water quality pollution across these grazed landscapes. The full report can be viewed at:

http://rangelandwatersheds.ucdavis.edu/main/projects/public_grazing_water_objective_one.html

Other Activities Throughout the Region



Smokey Bear hot air balloon at the Lake Tahoe Wildfire Awareness Week Kick off event on May 25th, 2013. Event led by UC Forestry Advisor, Susie Kocher.



Students learning about road maintenance at a Road Management workshop, July 2012. Hosted by UCCE Central Sierra.

4-H Youth Development Program



Program Overview

- The 4-H Youth Development program helps young people become responsible, self-directed, and productive members of the global society.
- The focus is the development of citizenship, leadership and life skills through a variety of delivery.
- The 4-H Program offers many exciting project opportunities for youth members; including: service learning, foods & nutrition, clothing & textiles, arts & crafts, aerospace & rocketry, presentations, gardening, photography, community service, robotics and much more.
- The 4-H Program also offers youth a wide selection of animal science projects including: sheep, swine, beef, horses, dairy goats, meat goats, pygmy goats, rabbits, poultry, alpacas and service dogs.

New 4-H Leadership in the Central Sierra Region

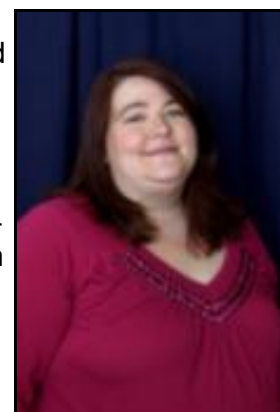
The 2012-2013 year has been an eventful year. UCCE Central Sierra hired two new 4-H Program Representatives this year to cover El Dorado and Tuolumne Counties.

Tracy Celio is the new 4-H Program representative in El Dorado County. Tracy holds a BA in Social and Environmental Science from San Diego State University. She brings with her 15 years of experience working for volunteer driven organizations specifically in youth development and community building. She has worked for Habitat for Humanity, San Diego School Garden Project and most recently, Big Brothers Big Sisters. Tracy also served in the United States Peace Corps in Central America as an Agriculture Extensionist.



Tracy Celio, 4-H Program Representative, El Dorado County

Melanie Ann Curtis is the new 4-H Program Representative in Tuolumne County. Melanie has been involved in the 4-H Youth Development Program for three decades. Melanie joined the Corcoran 4-H Club in Kings County at the age of nine and continued as a 4-H member through her first year of college. She served as a Kings County 4-H All Star and a California 4-H Diamond Star. After completing a Bachelor of Arts in Social Science at Chapman University, Melanie served two terms as an intern at the National 4-H Center in Chevy Chase, Maryland. Upon returning to California, Melanie worked for the San Joaquin Valley Health Consortium in a tobacco prevention program for two years before beginning her career with the University of California in 1998. After more than fourteen years serving in the Fresno County 4-H Program, Melanie joined the Central Sierra unit.



Melanie Ann Curtis, 4-H Program Representative, Tuolumne County

Tracy and Melanie join Calaveras/Amador County Program Representative Jennifer Goerlitz and Central Sierra 4-H Youth Development Advisor Jolynn Miller.

We are very excited to have Tracy and Melanie join the dynamic UCCE team in delivering quality 4-H programming!

4-H Youth Development Program

New Projects in 4-H

UCCE Central Sierra is proud to offer its youth the following new projects: amateur radio, outdoor adventure, wildlife, overnight camping, citizenship, community pride & community service, dance, emergency preparation & management, safety, science literacy, sign language, table setting, fiber art, metal working, Google Maps, and a Cloverbuds project.

GOOGLE Mapping

The goal of the Google Mapping project is to improve Google's base map (the map you see when you use Google Maps) for Tuolumne County. The project participants learn about some geography basics and then move into using Google Maps and eventually Map-Maker. On May 23rd, the Google Mapping project held a MapUp event where the project members entered data they collected about Tuolumne County features (businesses, parks, roads, etc.) that are either incorrect or missing on Google's base map. This project has Google's support (they gave us some free items for the mappers) and is a great opportunity for our youth to both learn about new technology and give back to our community.



National delegation of 4-H youth at ESRI conference in San Diego, CA.

Science Engineering Technology



El Dorado County 4-H Allstar and 4-H State Technology Team member, Jacob at the ESRI Conference in San Diego, CA.

The El Dorado County GIS Project made a web based map of all existing 4-H clubs within the county along with project offerings to help the public select the 4-H club that fits their family. These skills were learned while attending an ESRI conference in San Diego, CA.

4-H added Science, Engineering & Technology field trips to local agencies and business working in science. 4-H members toured Cal Trans Materials Test Lab and Schilling Underwater Robotics. 4-H youth learned the science behind bridge, road and safety construction as well as how robotics are built, designed and tested to work in harsh environments.

380 adult 4-H volunteers taught and mentored **1,409 youth** in the 4-H Youth Development Program during 2012-13.

4-H Youth Development Program

Community Service

Through its pledge of "hands to larger service," 4-H has historically given back to the community by encouraging young people and adults to volunteer. Service to the community – through food drives, raking the yard of an elderly neighbor, adopt-a-highway programs, teens teaching younger youth, teens mentoring children or youth determining community needs and helping solve community problems – helps young people learn about caring, leadership and citizenship.

UCCE Central Sierra takes pride in service and being an active member of the local community. Our 4-H members and leaders participated at these events.

El Dorado County

- Made Valentine Day cards with Staff Sargent Soelzar for troops in Iraq and Afghanistan
- Delivered carnations and cards to senior homes
- Assembled and delivered backpacks for homeless: gathered supplies (toiletries, blanket, power bars, and various other items)
- Collected canned food donations for El Dorado County food bank
- Cleaned horse arena at fairgrounds
- Hosted petting zoo for local nonprofit event
- Held Library robotics event
- Held Earth Day Festival GIS/GPS egg hunt
- Held Lego robotics and Geology scavenger hunt
- Assisted with blood drive
- Served dinner at outgoing supervisor's retirement party
- Assisted Northside School in Civil War Reenactment Days
- Gathered over 150 pounds of pop tops for Ronald McDonald House charities
- Distributed Valentine Day cards at Gold Country Retirement Center
- Built and maintained gardens at county fairgrounds
- Served breakfast at food bank distribution at Green Valley Church's Common Ground
- Served as Fun Run Volunteers
- Participated in Toys for Tots
- Distributed Halloween Pumpkins for Eskaton Residents



Motherlode 4gers with baked goods for the annual cake auction.

YOUTH LEADERSHIP

This past year, 4-H added 8 All Star Youth Ambassadors to the El Dorado County leadership team. These All Stars wrote and received a \$1,000 Revolution of Responsibility grant from the California 4-H Foundation and put on a Youth Leadership Conference for teens where they taught youth leadership skills, goals setting and interpersonal relationship building.

4-H Youth Development Program

Amador County

- Volunteered at Dandelion Days: setup & cleanup
- Helped wrap and distribute gifts in collaboration with "Angel Tree"
- Served & cleaned up at Upcountry Rotary Club crab feeds
- Served at Hospice fundraiser
- Parked cars for Fine Arts Council
- Volunteered at Sutter Creek Duck Race with petting zoo, pony rides, setup and cleanup
- Volunteered at Lone Homecoming
- Volunteered at 2nd Generation Volunteer Recognition Dinner with setup, serving & cleanup
- Volunteered to setup pens at Amador Fair
- Volunteered to help with flower gardens & painting the restrooms at Amador Fair
- Volunteered at Amador County Youth Poultry Show
- Volunteered at Sutter Creek Parade of Lights
- Volunteered to set up Amador County display window at the State Capitol
- Volunteered at Sutter Creek Children's Festival, Kids College, Amador Fair Aid Fundraiser & Celebrate the Children
- Volunteered at Ironstone Concours d'Elegance
- Provided assistance for setting up "Young Riders" Park, at Western States Horse Expo
- Collected food donation for local Food bank
- Collected Thanksgiving dinner donations for needy families
- Participated in holiday caroling at Senior Mobile Home Park
- Handed out candy canes with holiday cheer notes attached



4H Youth caroling at a senior center mobile home park.

Calaveras County

- Volunteered at Community Food Closet
- Partnered with other volunteers for "Thanksgiving Basket"
- Helped wrap and distribute gifts in collaboration with "Angel Tree"
- Gave "Blessing Bags" to the homeless
- Volunteered at Ironstone Concours d'Elegance
- Collected food donations for Resource Connection Food drive
- Collected toy donations for Toys For Tots
- Collected food donations for Santa's Express
- Collected food donations for local Food bank
- Volunteered at Mountain Ranch Park cleanup
- Wrote thank you letters to veterans in the armed forces
- Collected gently used coats for Coats For Kids
- Volunteered and helped with rock removal & grounds clean up at Mokelumne Hill public equine arena
- Baked & decorated cookies for Murphy's Holiday Dinner
- Volunteered at the Valley Springs & Paloma Community Gardens
- Partnered with Parks & Recreation Dept. and Calaveras County to create a Dog Park in San Andreas
- Collected Thanksgiving dinner donations for needy families
- Handed out candy canes with holiday cheer notes attached



4-H youth presenting at the Calaveras County Board of Supervisors meeting.

4-H Youth Development Program

Tuolumne County

- Hosted bowl-a-thon which raised money for Juvenile Diabetes Research Foundation
- Collected and donated Christmas decorations for a family who lost their house in a fire
- Collected children's books for Greely Hill School
- Conducted pet food drive for Tuolumne County Humane Society
- Made cookies for Valentine's Day at the Senior Center
- Collected canned food for the Motherlode Food Project
- Baked cookies for clients of the David Lambert Community Drop-in Center
- Collected and donated baby items to 1st baby born at Sonora Regional Medical Center during National 4-H Week
- Collected and donated toiletries and personal supplies to the Women's Shelter
- Volunteered at Ironstone Concours d'Elegance

"Doing community service projects is important in 4H... it lets the community know that we care. I like getting to meet new people!"
Katherine S.,
age 12

Social Capital Research

This multi-state research and extension project is examining the specific impact of 4-H participation on individual social capital development as well as on community social capital. Social capital is often presented as the connections among individuals, their social networks, and the norms of reciprocity and trustworthiness that arise from them. We hypothesize that when 4-H programs are strong, they result in improved social connections in the community, leading to expanded opportunities for youth development while building overall community capacity for civic engagement and community betterment.



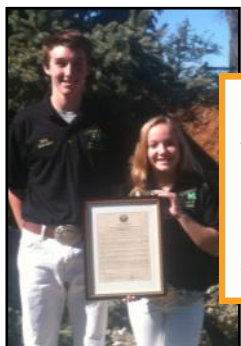
Gail Kautz of Ironstone Vineyards, giving local 4-H All-Stars a check from the Concours d'Elegance event.



4-H Adult leaders participating in a Volunteer Development Day in Amador.

Volunteer Development

Volunteer development has been a key focus for the 4-H Advisor, JoLynn Miller. During the 2012 year, two Volunteer Development Days were offered with 20 adult volunteers participating. Topics included diversity, experiential learning, inquiry based learning, ages and stages of youth development, and generational diversity.



El Dorado 4-H All Stars with County Board of Supervisors Proclamation commending the 4-H Program for its 100th Anniversary.



4-H youth taking care of their animals at a county kids day



University of California Agriculture and Natural Resources

Cont. pg.4 100 Years of Cooperative Extension

farm was opened in Davisville, a site which grew into a new campus, UC Davis. The same year, UC established the Citrus Experiment Station in Riverside, the foundation for the UC Riverside campus. New knowledge and technologies developed by UC scientists were critical to the growth of farming and allied industries around the state. By the time the Smith-Lever Act became law, UC agriculture faculty were already offering short courses and institutes for farmers around the state, but farmers were clamoring for more. Many California farmers were excited about the possibility of having a Cooperative Extension educator, known as a “farm advisor,” assigned to their community.

Anticipating strong demand, University of California officials required each county government that wanted to participate in the Cooperative Extension partnership to allocate funding to help support extension work in that community. Additionally, it was required that a group of farmers in participating counties organize into a “farm bureau” to help guide the farm advisor on the issues of local agriculture. (These grassroots groups later evolved into the California Farm Bureau Federation). The first California county to sign up, Humboldt County, had their farm advisor in place by July 1913, anticipating passage of federal legislation. Seven more counties came on board in 1914, and many soon followed, with 41 of 58 California counties securing Cooperative Extension farm advisors by 1922. Other counties joined the partnership in subsequent years. A century after the inception of this collaboration between UC and counties, county government continues to be a key partner in local delivery of Cooperative Extension.

In its first years, Cooperative Extension played a critical role on the home front during World War I, helping farmers to grow enough wheat and other crops to meet expanded war-time needs. Extension's value was quickly established as farmers

came to rely on having an expert close at hand who was familiar with local conditions and crops. In addition to addressing the needs of farmers, Cooperative Extension soon expanded to provide educational opportunities for their families, including programs for rural women and activities for local youth. Nutrition, food preservation, and a variety of skills were taught by “home demonstration agents” working with rural women. Thousands of young people would learn about food production, cooking, science and more through participation in 4-H clubs.

Despite its rural roots, as communities have changed, so has Cooperative Extension, adapting and fine-tuning programs to meet the needs of a changing society. As the nation urbanized, many Cooperative Extension efforts were developed to meet the needs of non-rural audiences. Examples include the Expanded Food and Nutrition Education Program (EFNEP) which has offered free nutrition education classes in urban communities since the 1960s. Thousands of urban and suburban residents have benefited from Cooperative Extension's Master Gardener Program which offers workshops and advice to home, community and school gardeners. Regardless of the population served, Cooperative Extension activities are grounded in university research, and developed in partnership with local communities.

Today, UC Cooperative Extension continues to serve communities throughout California as part of the University of California's Division of Agriculture and Natural Resources (UC ANR), with 200 locally based Cooperative Extension advisors, 130 campus-based Cooperative Extension specialists, 57 county offices throughout the state, and nine research and extension centers. Over a century of service, Cooperative Extension has continued to connect communities with the land grant campus, bringing practical, trusted, science based solutions to Californians.

Master Gardener Program



Program Overview

The Master Gardener program is an educational outreach program designed to extend research based information and answer gardening questions in the community. The Master Gardener program is made possible with funding from county government, the University of California, and the fundraising efforts by the Master Gardener volunteers. To become a Master Gardener, local residents must receive over 50 hours of intense horticultural training by the University of California and must recertify each year by complying with local requirements.

This year we trained **57** new volunteers, bringing the UCCE Central Sierra Master Gardener membership to **407**. UCCE Central Sierra Master Gardener volunteers donated **25,491** hours during 2012-2013 year.

Educational Events and Outreach

Free Classes!

This last year Master Gardeners provided 102 free public education classes on a wide array of gardening topics. Classes included; Water Efficient Gardening, Pests-Inside and Out, Food Gardening 101, Fire Safety, Fruit Tree Pruning, Composting, Native Plants and Beneficial Insects, Propagation by Seed, Edible Landscaping, Berry Pruning, Sprinkle or Shower? Efficient Irrigation, and more. The new Lake Tahoe Program is one of the first in California to include a major emphasis on the natural environment and the protection of natural resources.



Amador County Master Gardener Judy Lee, answering a gardening question.



The public is able to call the Master Gardener office for help with gardening questions.

Amador: 209-223-6838
Calaveras: 209-754-2880
El Dorado: 530-621-5512
Tuolumne: 209-533-5912
Lake Tahoe: 530-534-1501 x 101

Master Gardener Program



Master Gardener Kareela Collins answering question at the Lake Tahoe Farmers Market.

Events!

Master Gardeners provided citizens with gardening advice at numerous outreach events, including Home & Garden Shows, County Fairs, Farm Day, Earth Day, Wagon Train, Plant Sales, information booths at local nurseries, and numerous Farmers Markets throughout the Central Sierra.

Media outreach

Master Gardeners are reaching out to the public through a variety of methods including weekly newspaper articles, electronic newsletters and social media, such as Facebook. The monthly E-newsletters is sent out to 2,624 subscribers in Amador, El Dorado, Calaveras and Tuolumne counties.

Master Gardeners write weekly columns for local newspapers including the Mountain Democrat, PVFA Turnout, Village Life, the Union Democrat, and My Mother Lode. Tuolumne Master Gardeners published a book based on four years of articles that appeared in the Union Democrat called "Sharing the Knowledge". Master Gardeners also routinely appear in newspaper articles, radio spots, and local public access television shows.



NEW Master Gardener Program in Lake Tahoe Basin

The University of California Cooperative Extension Master Gardener program is excited to announce the formation of a brand new program in the **Lake Tahoe Basin!**

The UCCE Central Sierra in partnership with the Tahoe Resource Conservation District launched the inaugural Lake Tahoe Master Gardener (MG) volunteer program this year and trained 18 new volunteers. The Lake Tahoe MGs have already hit the ground running by opening a phone clinic on Saturdays, a plant clinic at the Farmers Market and offering a variety of classes to the local community. The volunteers can be reached at:

870 Emerald Bay Suite 108
South Lake Tahoe, Ca 96150
laketahoemg@ucanr.edu
530-534-1501 x 101



Lake Tahoe Master Gardener Class of 2012 learning about Forest Management.

Master Gardener Program

Demonstration Gardens

Demonstration Gardens play an important role in the Master Gardener Program. The gardens are an educational platform to provide free gardening demonstrations to the community on a variety of topics including; Integrated Pest Management, Irrigation, Landscaping, Pruning, Native Plants, Deer and Drought Tolerant Plants, and much more.

After nearly four years of planning and fundraising, the El Dorado Master Gardeners in collaboration with the El Dorado County Office of Education and the Folsom Lake College - El Dorado Center, began construction on a 3 acre educational facility. The garden will be one of the largest Master Gardener demonstration gardens in the area and will host a variety of specialized gardens including; roses, Japanese tea garden, bog garden, vegetables, orchard, vineyard, butterfly garden, natives, Mediterranean, children garden, perennials, water features and a number of different examples of retaining walls and raised beds.



The Calaveras Master Gardener Demonstration Garden is located at the San Andreas Government Center. The Garden has an orchard, mission garden, water wise garden, vegetable beds, propagation area, herb garden, perennial flower garden, children's garden, native garden and a rose garden that features a number of heritage roses from the county. The demonstration garden hosts an "Open Garden Day" each month where volunteers teach a variety of free classes and demonstrations.

The Tuolumne Master Gardener Demonstration Garden is located at the Cassina Alternative High School in Sonora. The garden is home to a vegetable garden, rock garden, orchard, berries, blueberries, rose garden, and more. Master Gardeners are working with some of the students to develop their own vegetable bed at the garden. This garden contains a rain water collection system that was developed with the help of the shop class at the school.



Amador Master Gardeners have a Demonstration Garden at the Interfaith Food Bank. All produce from the garden goes to the Food Bank for distribution. The volunteers also maintain a Shade Garden at the County Fairgrounds, where they showcase shade tolerant plants that are suitable for the area.

Master Gardener Program

School Gardens

Master Gardeners provide expertise and educational opportunities at many school gardens throughout the Central Sierra Region.

Michelson School Garden has provided gardening education to all third grade students for the past 17 years.



The demand for Master Gardeners in the schools is so great that local PTO organizations have started providing the tuition to train Master Gardeners to volunteer at their respective schools.

Master Gardeners collaborate with the organization "CHASSIS" Creating Healthy And Sustainable Systems In Schools to develop a school/community garden that will provide additional food for the students and also for the local food bank located at Valley Springs school garden.



S.O.S. – Save Our Styrofoam

For the past three years, the Tuolumne Master Gardeners have hosted a Styrofoam recycling event two times a year in collaboration with local businesses, to prevent this bulky material from entering the landfill in honor of Earth Day.

The Master Gardeners have been so successful that Waste Management has assumed the duties of collecting the Styrofoam on a daily basis. Citizens of Tuolumne County can now drop off Styrofoam at the Waste Management Site.

Fundraising

Master Gardener Volunteers are passionate about the programs they offer and the educational learning opportunities they provide the local community. This year, Master Gardeners **raised \$45,336** to support their projects in the Central Sierra.

Nutrition, Family and Consumer Science Program

Program Overview

The **Nutrition, Family & Consumer Science Program (NFCS)** covers a broad array of issues affecting everyday life. Our programs provides research-based information to our residents for the many aspects of their life, including healthy eating habits, chronic disease prevention, physical activity tips, **parenting**, **resource management**, and basic **food safety** including home **food preservation**. Programs are designed to strengthen the capacity of families and individuals throughout their lives.



UCCE Central Sierra Nutrition, Family & Consumer Science Program. From left to right; Gretchen Birtwhistle, Stacy Arhontes, Dorothy Smith, Valerie Vasile, and Novella Springer.

Program Goals

- Provide information and activities to raise awareness of obesity prevention interventions.
- Provide information that will help residents make confident and informed food choices and preparation decisions, considering information about nutrition, food quality and safety, food costs, preparation methods and encourage local food choices when possible.
- Provide resource management and consumer education programs to assist families in maintaining economic stability and security, managing human and fiscal resources, increasing consumer proficiency to stretch their food dollars.
- Provide consumers of all ages research based information related to reducing risk for chronic diseases like heart disease, cancer, diabetes and high blood pressure.
- Provide residents guidance on healthy weight, increasing physical activity and nutritious food selection and preparation.
- Provide parenting and family programs that will assist individuals and families in developing their human potential and provide a means for improving child care, parenting, elder care, and communication skills to attain a satisfying life for all individuals.
- Provide education to consumers and foodservice workers about recommendations for safe food selection, storage, preparation, and serving.
- Provide a wide selection of research-based procedures for safe home food preservation.

Nutrition, Family and Consumer Science Program



University of California
Agriculture and Natural Resources
Nutrition Education

Nutrition Education Program - UC CalFresh and UCCE Expanded Food Nutrition Education Program (EFNEP)

The UCCE Nutrition Education Program has four (3.25 FTE) Family Nutrition Educators who work with low-income youth and their families in El Dorado, Amador, Calaveras and Tuolumne to improve their nutrition knowledge, food resource management skills, food safety, and physical activity and eating behaviors through the UC CalFresh and the UCCE EFNE programs. These programs are funded by grants from USDA. UCCE Central Sierra received **\$330,000** this past year for these programs. Because of the success of the programs and increased need in our communities next year's budget will be approximately **\$475,000**. The program provides nutrition education and resource management to low income families. We partner with community based organizations serving this population and public schools whose free and reduced meal participation is 50% or higher. The UCCE Nutrition Educators train teachers and extenders to teach nutrition lessons as well as conducting lessons and activities.



UC CalFresh Accomplishments:

- Provided direct nutrition education to **5,379** children in the three counties.
- Trained and supported **193** teachers in schools across the 3 counties.
- Provided direct nutrition education to **293** adults averaging 2 hours of education per participant.
- Reached **6,213** individuals through newsletters, websites and community events.
- Supported nutrition education in **35** elementary and preschools in the 3 counties.
- Provided expertise and resources to develop or enhance school gardens for nutrition education.
- Provided bi-monthly tasting of healthy foods to students in our participating schools.
- **50%** of the adults who participated in our classes indicated they intend to increase the variety of fruits and vegetables they consume each day.
- **89%** of the students were willing to try a new fruit or vegetable
- **65%** of students indicated they would ask for the item at home.
- **42%** of the adults indicated the intent to decrease sweetened beverage consumption.
- Conducted monthly food budgeting workshops or limited resource families.

UCCE EFNEP Accomplishments:

This program is new to the Central Sierra and started in October 2012.

- Provided a series of **8** one hour nutrition education lessons to **70** adults.
- **89%** of adult participants made **2** or more healthy changes to their eating habits.
- Provided nutrition education to approximately **250** students.
- Partnered with **8** different community agencies to conduct nutrition education.

Nutrition, Family and Consumer Science Program

Food Safety

Food-borne illness affects 25% of all Americans annually. As more and more of us eat out more frequently this number increases. This statistic alone makes this a high priority. UCCE Central Sierra nutrition staff provide basic food safety training to community agencies, services groups, Master Gardeners, 4-H Leaders and the general public.

This year we:

- Conducted **10** Make It Safe, Keep It Safe Classes across the four counties.
- Trained approximately **250** individuals in basic food safety.
- Responded to over **100** calls from residents related to food safety.



Youth learning about food safety.

Community Education

We participate in a variety of community events providing healthy eating and lifestyle tips.

This year we:

- Participated in Ag Day in El Dorado, Amador and Calaveras County.
- Participated in Children's Fair in Amador and Calaveras County.
- Sponsored and facilitated the Annual Kids in the Garden Event in Calaveras County.
- Participated in Health Fairs in all four counties.
- Provided nutrition expertise to First 5 Commissions and several other community based organization across the 4 counties.



CalFresh Educator novella Springer teaching kids about MyPlate at Amador Farm Day.

Nutrition, Family and Consumer Science Program

Rethink Your Drink Campaign

The Rethink Your Drink Campaign is a public health initiative. The Campaign's primary goals are to:

- Educate low-income Californians about healthy drink options
- Help identify drinks with added sugar
- Make the link between consumption of sugar-sweetened drinks and health risks

The UCCE Nutrition Education program routinely provides education related to sugar sweetened beverages at schools, community events and newsletters. Providing residents with information is essential in promoting healthy choices. This year we conducted over 30 presentations encouraging residents to

"Re-Think their Drink!"



Re-Think Your Drink, refreshment table showing how fruit & vegetable infused water can be a sweet and refreshing alternative to soda and other sweetened beverages.

Youth Nutrition Education Program

Research tells us that the early years are especially important for establishing habits that will last a lifetime. The UCCE School Nutrition Education Program is federally funded by USDA and administered by the University of California Cooperative Extension to provide nutrition education to schools where at least 50% of students are eligible for free or reduced school lunches. This is done by providing teachers with free curricula that enhance their efforts to teach students about healthy lifestyle practices and by UCCE Nutrition Educators conducting classroom presentations. All curriculum pieces contain concise background information on the topic, easy-to-prepare activities and a snack idea to complement the lesson. In addition, the program provides opportunities for children to actively learn about healthy eating and exercise. In addition we deliver monthly tastings of fresh fruits and vegetables to all enrolled schools to allow kids to try new foods.



Master Food Preserver Program



Program Overview

The Master Food Preserver program is an educational outreach program designed to extend research based food safety information and answer questions on food preservation. Master Food Preserver volunteers address local food issues and needs while teaching citizens how to safely prepare and preserve foods.

The Master Food Preserver program continues to grow. In 2012-2013 the program trained an additional **24** volunteers, bringing the total volunteer base to **87**.

Projects

Public Education Classes

Master Food Preservers conducted 39 well attended public classes with topics including Low Sugar Preserves, Cheese Making, Meat Preservation, Vinegars and Condiments, and Olives.

In 2012, the El Dorado County Master Food Preservers offered a series of free classes at the Marshall Grange in Georgetown, giving us a wonderful opportunity to teach at the northern edge of the county. The classes were well received with many repeat attendees. As a result of our strong partnership with the El Dorado County Fairgrounds, the 2013 El Dorado classes are at the County Fair Board Room.



El Dorado Master Food Preservers teaching a class on home food preservation.

Amador/Calaveras County Master Food Preservers offered a set of core classes that included Jams & Jellies, Condiments, Pickling, Pressure Canning, and Freezing/Dehydrating. In 2013 they are offering a new class: Tomatoes 4 Ways.

eNewsletters and Newspaper Articles

In 2011 the Master Food Preservers began publishing weekly articles in the Mt. Democrat newspaper and a monthly electronic newsletter that has a national and international subscribers. Each month they share both food safety and food preservation topics through articles and recipes.

Master Food Preserver Program

Key Projects

Public Education Classes and Events

The Master Food Preservers conduct free public education classes covering the core concepts of safe home food preservation. Master Food Preservers also present educational information at various public outreach events including Farmers' Markets, County Fairs and a variety of community events.

Outreach Events:

- **Informational booths** at the Amador, Calaveras and El Dorado County fairs and at Farmers Markets in Angel's Camp, Jackson and Sutter Creek.
- **Guest speakers** at Tuolumne Master Gardeners Open Garden Day, Glencoe Garden Club, Mountain Ranch Group, numerous 4-H events, Master Gardener workshops in numerous counties, Marshall Hospital, Earth Day, local churches, local nurseries, Valley of the Moon Garden Club, Palmiter High School, and the Foothill Horticultural Society.
- **Junior Jams & Jellies:** This free class was offered to the youth in our community. Twenty-five children attended to make jam or jelly entries for the El Dorado County Fair. The entry process was coordinated with the fairgrounds for this special event. This event was a collaborative effort with El Dorado Disposal, El Dorado County Fair Grounds, Strauss Wholesale Foods, and Placerville Hardware. These sponsors generously donated the site, jars, pectin, sugar and county fair entry fees.
- **Pressure Canner Gauge Testing:** Gauges on pressure canners need to be tested annually to ensure that food is being safely canned. Low acid foods must reach 240°F during processing to destroy botulism spores. An inaccurate gauge can lead to under-processed food which can be a safety hazard. The Master Food Preservers have a calibrated gauge in the Amador and El Dorado offices and provide free gauge testing for the public.
- **Food Preservation Judging:** Master Food Preserver volunteers provided their expertise in home food preservation in three county fairs. In El Dorado County they coordinated the entire preserved food entry processing and all aspects of supporting the judges. Volunteers assisted the judges at the Amador County Fair and were the judges for the Tuolumne County fair. In Calaveras County the volunteers had a display booth and a tasting booth.



Master Food Preserver Volunteer staffing a booth at the county fair.

Master Food Preserver Program

NEW Master Food Preserver Program in Amador and Calaveras

As a result of increased interest in home food preservation from the public, UCCE Central Sierra has started a **NEW** Master Food Preserver program in Amador and Calaveras. The weekly training class started in March 2012 with several transfer members from the El Dorado group and 10 new volunteers. With the recent training in 2013, the volunteer base is up to 17 volunteers. The program has already been active in the community by hosting monthly classes for the public, serving as guest speakers for local community groups, and having informational booths at Farmers Markets and the county fairs.



Food Preservation class at the Calaveras County Senior Center.

2012-2013 was the first full year for the Amador/Calaveras County Master Food Preservers. This small, but dedicated, group of volunteers presented a class every month, alternating between Amador and Calaveras counties. Community support was great, with up to 50 attendees at a class.

Master Food Preserver Program



El Dorado County Master Food Preserver Volunteers with the 2013 El Dorado County Fair's Spirit of the Fair Award.

Spirit of the Fair Award

The El Dorado County Master Food Preservers were awarded the 2013 El Dorado County Fair's Spirit of the Fair award.



Master Food Preserver Volunteer Tracy Wickstrom accepting the Spirit of the Fair Award for the Master Food Preserver Program.



El Dorado Master Gardener Volunteers at the El Dorado County Fair providing information on proper food preservation and samples of numerous preserved foods.

Educational Opportunities

One of the major goals of UC Cooperative Extension is to bring educational resources to the local community in the form of workshops, field days, and short courses. An important component of UC Cooperative Extension work is conducting outreach programs to deliver high quality information to farmers, ranchers, industry professionals, land managers, community clubs and organizations, youth, and the general public. This past year we offered a wide variety of public education classes and events.

Agriculture Classes

- **Calaveras Vineyard Tour** - Full day tour for grape growers, winemakers, backyard enthusiasts, public officials, and agency personnel highlighting the diversity of vineyards and wineries in Calaveras County.
- **Grape Grower Field Meetings / Foothill Grape Day** - Topics include pruning, cover cropping and erosion control, organic/alternative growing practices, frost protection, pest management, weed control, canopy management and marketing.
- **Tree Fruit Grower Meetings** - Topics include safer pesticides for codling moth control, dwarfing rootstocks for stone fruit, weed control, nutrition and fertilization, invasive pest identification.
- **National Christmas Tree Grower Association Tour** - Topics include variety selection, canopy management, irrigation, new varieties and pest management.
- **Herbicide Nozzle and Weed Control Demonstration Field Day** - Results of a contact herbicide trial testing six different nozzles for weed control and minimizing drift.
- **Sprayer Calibration Workshop** - Topics include nozzle selection, calibration basics, "greening up" your airblast sprayer, drift control, strip sprayer calibration and discussion of herbicide activity.
- **Biological Control for Foothill Farmers** - Topics include identifying and conserving natural enemies, augmentation with natural enemies, creating habitat (hedgerows) to promote natural enemies, native bee biology and conservation.
- **Field Worker Pesticide Safety Training** - Trained field workers and their supervisors on prevention of heat illness and pesticide safety.
- **Frost Protection and Weather Forecasting Workshop** - Topics include frost and weather, powdery mildew indexing and weather forecasting services.
- **Teacher's Ag Summit Institute** - Three day intensive workshop for local teachers to learn about environmental stewardship, water conservation, land use, ecological services, production, marketing and distribution systems, economic and business considerations and historical context.



Educational Opportunities

Natural Resource Classes

- **Forestland Succession Planning** - 4 educational workshops conducted on succession planning for private forest landowners.
- **Facilitation Workshop** - Two 3 part workshops on facilitation of input by stakeholders on forest management projects.
- **Forest Research Results** - 6 part webinar series on current research from UC Berkeley.
- **Roads workshop** - Field course on managing and maintaining un-surfaced roads for road managers and private landowners.
- **Oaks of the Central Sierra: Care & Preservation** - Series of workshops offered throughout the region on oak care, management, diseases and preservation. Funded through a Renewable Resources Extension Act grant.
- **Cooperative Forest Management Plan Workshop** - Collaborated with the NRCS and Cal-fire to bring local foresters and landowners together to develop plans ready for submission to these agencies to receive forestry assistance grants.
- **Invasive Weed Workshops** - 18 educational workshops highlighting weed identification and best management practices to prevent and control the introduction and spread of weeds.
- **Medusahead Field Day** - Discussion of current research and control strategies for medusahead in annual rangelands.
- **Yellow Starthistle Control Workshops** - 12 educational workshops dealing with the biology and control of yellow starthistle.

Nutrition Classes

- **Safe Food Preservation** - Techniques for safe food preservation, canning, drying, freezing.
- **Eating for a Beautiful You** - How to eat healthy for good skin and how to use healthy natural foods for your skin.
- **Kids in the Garden** - Encouraging kids to engage in gardening activities that will increase physical activity, eating fruits and vegetables and make healthy lifestyle choices.
- **Growing from the Garden** - Cooking demos and brief nutrition tips on how to increase fruit and vegetable consumption.
- **Choose My Plate** - What's it all about? Review of the new MyPlate logo tips on how to use this guideline for planning and choosing healthy meals.
- **ReThink Your Drink** - Tips for reducing sweetened beverage consumption and ideas for increasing water intake.
- **Safe Storing of Fresh Produce From the Garden** - Techniques for storing fresh fruits and vegetables from the garden.

We play an active role in our community

Since 1914, we've been providing practical answers to your questions in agriculture, natural resources, home horticulture and gardening, nutrition, and 4-H youth development in Amador, Calaveras, El Dorado and Tuolumne counties.



Developing research-based **solutions to local problems.**

Bringing **up-to-date research**-based information on the agricultural commodities grown here in the Central Sierra to producers through the expertise of local UC professionals.



Providing **information and outreach** to local residents in crop and livestock production, and general interest areas that include gardening, nutrition, pest management and backyard animals.

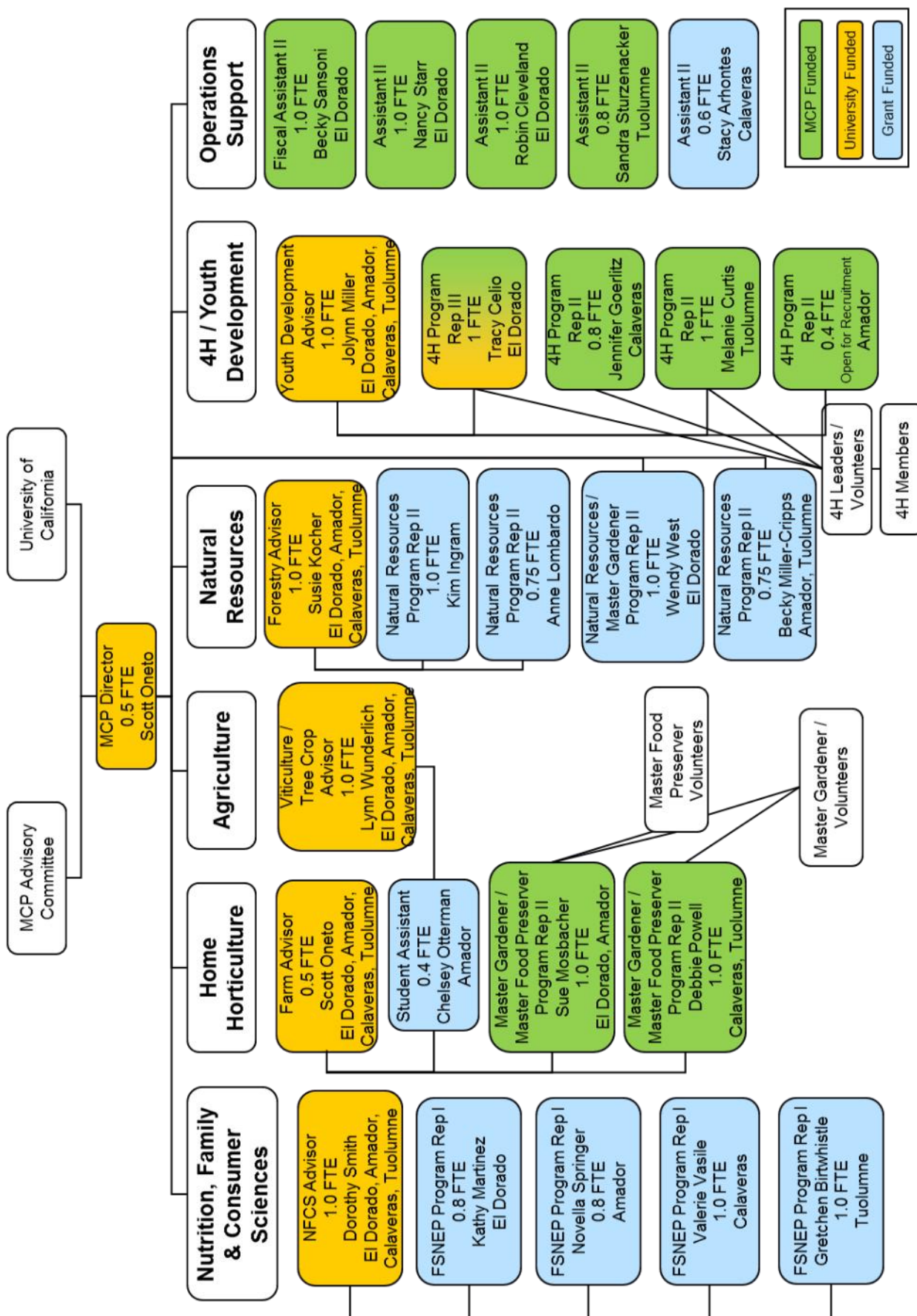
Working with youth to provide them with the knowledge and skills to become responsible, self-directed, and productive people.



Solutions for California

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University of California Cooperative Extension Multi-County Partnership





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