University of California Cooperative Extension

Central Sierra

Serving Amador, Calaveras, El Dorado and Tuolumne counties

2014 Annual Report

UCCE Centennial Celebration: Past, Present, and Future

Our mission

Is to sustain a vital agriculture, environment and community in the Central Sierra region by providing University of California research based information in agriculture, natural resource management , youth development, and nutrition, family & consumer science.

About the Cover Photos, clockwise from top left:

- **Tractor School - Keeping 'Em in Shape**. Almost from the time of the first tractors, farm advisors in the University of California Agricultural Extension Service have felt a responsibility to aid farmers in keeping their vehicles in good working order. Here, in the early 1920's, a tractor repair school was conducted at a county farm. Courtesy of Will Suckow.
- **Complying with Grazing Restrictions.** In response to newly formed Forest Service grazing restrictions, Extension advisors help ranchers determine most efficient locations and methods to feed cattle. 1945. Courtesy of Will Suckow.
- **4-H Youth Girl Showing Bovine** . University of California Cooperative Extension Service. Even from the early ages of the 4-H program, youth were taught by hands–on, learn by doing activities. This young woman, is showing her bovine at a local fair. Courtesy of Evett Kilmartin.
- **Teaching Essential Home Making Skills.** Home demonstration agents in the early years of UC Cooperative Extension focused on helping farm families become self-sufficient with programs on clothes making, food preservation, and maintaining home poultry flocks. Courtesy of Evett Kilmartin.

University of California
Agriculture and Natural Resources

Last year, 2014, marked the Centennial of the University of California Cooperative Extension (UCCE), the research and outreach arm of the University of California. Cooperative Extension is a nationwide system of community-based education, established by passage of the Smith-Lever Act in 1914 as part of each state's land-grant university.

Valuing public/private partnerships, the Smith-Lever Act required each county government that wanted to participate in the Cooperative Extension partnership, to allocate funding to support extension work in their community. Additionally, it 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.

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 wartime needs. Cooperative Extension officials also understood the importance of introducing new technologies to a younger generation. They formed clubs in which youth could experiment with new agricultural methods and share these successes with their parents. Eventually the clubs took the name 4-H, representing head, heart, hands and health. After World War II, as the nation urbanized, many Cooperative Extension efforts were developed to meet the needs of non-rural audiences, including nutrition education and the creation of the Master Gardener Program, offering workshops and advice to home makers and gardeners.

Today, UCCE advisors are critical partners with local farmers and ranchers, providing scientific-based information on techniques to increase production and economic stability, while addressing environmental concerns. Our programs address viticulture and integrated pest management, livestock and range management, specialty crops, value added agriculture, beginning farmers and ranchers, forest management, agritourism and nature tourism services. We have Master Gardener volunteers who provide education and outreach to residents concerning water conservation, home food production and pesticide reduction. We have a robust nutrition program that includes a number of highly trained staff that deliver nutrition education in schools, after school programs and by working directly with adults. Our Master Food Preserver volunteers teach safe food handling and proper home food preservation methods. We also have a large and active 4-H youth development program that focuses on leadership, animal husbandry, science, engineering and technology. Investment in agricultural research is important for the economy, the environment, and the health of our communities. Economists have shown that $1 invested in agricultural research returns $21 to California residents.

UCCE has provided expertise in agriculture production and natural resource management for over 100 years. I thank you, as the leaders of El Dorado, Amador, Calaveras and Tuolumne counties for your continued support of the UCCE, and with your help, we envision a thriving community where healthy food systems, environments, and communities are strengthened by a close partnership between county government and the UC Cooperative Extension for the next 100 years.

Sincerely,
Scott Oneto
County Director

UC Academic Advisors
Scott Oneto
Multi-County Partnership Director
Agriculture & Natural Resources

Susie Kocher
Forestry & Natural Resources

JoLynn Miller
4-H Youth Development

Lynn Wunderlich
Agriculture / Viticulture

Dan Desmond
4-H Youth Development -Emeritus

UC Program Staff
Natalie Alfaro-Perez
UC CalFRESH Nutrition Educator

Vera M. Allen
4-H Youth Development - Amador / El Dorado

Gretchen Birtwhistle
UC CalFRESH Nutrition Educator - Tuolumne

Tracy Celio
Master Gardener - El Dorado/Amador

Jennifer Goerlitz
4-H Youth Development - Calaveras

Kim Ingram
Sierra Nevada Adaptive Management

Madison Jones
UC CalFRESH Nutrition Educator - Amador

Anne Lombardo
Sierra Nevada Adaptive Management

Sue Mosbacher
Master Food Preserver / Master Gardener Program Manager

Hector Ochoa
UC CalFRESH Nutrition Educator - Lake Tahoe

Debbie Powell
Master Gardener - Calaveras/Tuolumne

Megan Suarez-Brand
Master Gardener - Lake Tahoe

Valerie Vasile
UC CalFRESH Nutrition Educator - Calaveras

Wendy West
UC CalFRESH Nutrition Education Program Manager

UC Administrative & Program Support Staff
Stacy Arhontes
Robin Cleveland
Becky Sansoni
Nancy Starr
Sandra Sturzenacker

Food Corps Service Members
Monica Drazba
Emily Metzger

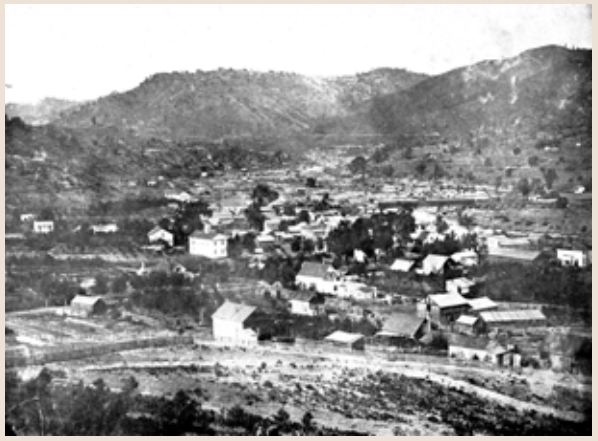
Agriculture in the Sierra Nevada - A look back in time….

Adapted from: Janet Momsen, UC Davis Department of Human and Community Development

The history of agriculture in the Sierra Nevada can be seen as consisting of four main periods, beginning nearly a century and a half ago with the gold rush. Prior to the discovery of gold in El Dorado County in 1848, agriculture and ranching had been confined to the more accessible and fertile parts of the state, and there had been very little European settlement of the Sierra Nevada. The early boom period of the gold rush was followed by one of adjustment to loss of local markets caused by declining mining activity and technological change. In the third period large-scale lumbering, power industries, and specialized agriculture developed. The fourth period is distinguished by rural residential expansion, agricultural pluriactivity, and the suburbanization of agriculture, especially in the foothills. These stages occurred first in the central foothills and somewhat later in the higher and more isolated areas of the Sierra Nevada.

The Boom Period of the Gold Rush, 1848–60

By the end of 1848, an estimated 10,000 to 12,000 men from California, Oregon, Central and South America, and the Pacific Islands had arrived in the foothills. Within five years some one-third of a million persons had migrated to the gold camps and the boom towns of the Sierra Nevada from all over the world. El Dorado County, where Marshall's eventful discovery of gold was made, rapidly became the most populous county in the state. By 1852 it had a diverse population of 40,000. In addition to the mining camps, settlements such as Placerville, Gold Run, and Nevada City sprang up throughout the gold-producing regions of the foothills .



The booming town of Coloma shortly after the discovery of gold.

This growing population generated a demand for various support activities, such as lumbering, hauling of supplies, and food production. Farming developed in the foothills during the 1850's to meet the needs of the mining camps. Many disillusioned miners moved on to new discoveries elsewhere in the western United States and Canada, but some settled as farmers in the Sierra Nevada. They cleared extensive areas of timber and brushland for the production of barley, wheat, oats, and hay to meet the heavy demands of the horse teams that transported food, lumber, mining equipment, and passengers to the gold mining areas. Peach and apple orchards were established and vegetables and potatoes grown on lands irrigated with water from ditches built by mining companies.

By 1860 the value of orchard produce from El Dorado County was the highest in the state, and the Sierra Nevada counties were producing about one-third of the state's orchard fruit. The three foothill counties of Mariposa, El Dorado, and Tuolumne produced 11.7% of the state's wine, and the wine output of Mariposa County alone was greater than that of Napa County. Some 35% of the state's market-garden (i.e., truck-farm) crops by value were produced in the Sierra Nevada by 1860. The livestock industry also expanded into both foothill and mountain regions. Dairying grew rapidly, with milk, butter, and cheese finding local markets in the foothill towns and mining camps. All the Sierra Nevada counties produced butter contributing 14% of the state's total, but only seven of the region's counties made cheese. Sierra farms had less than 3% of the state's dairy cows, concentrated in the northern part of the region and in El Dorado County, and transportation difficulties clearly encouraged a concentration on butter and some cheese rather than on fresh milk. Meat production was very important: El Dorado County had by far the highest value of animals slaughtered of any county in the state and,

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when combined with the figures for Amador, Sierra, and Tuolumne counties, accounted for almost one-quarter of the total for California. Thus at this period the farms of the Sierra Nevada were among California's major producers of food for local consumption using relatively intensive methods.

The effect of summer drought on pastures at low elevations soon led to the practice of driving dairy and beef cattle from foothill ranges to meadows in the high mountains. The sight of large flocks of sheep moving between winter ranges in the Sacramento Valley and summer grazing lands in the mountains also became commonplace following the introduction of stock from eastern states.

Adjustment to the Decline in Gold Mining, 1860–1910

The dramatic boom period of gold mining was relatively brief and followed by a period of bust. Exhaustion of the more accessible surface placers was rapid, and California's gold production declined sharply from a peak in 1852. The attraction of new mining discoveries in Nevada, Idaho, British Columbia, and Alberta from the 1860s onward initiated a long decline in foothill population. However, considerable local agriculture was maintained in the foothill region to supply the remaining local markets and the booming mining operations at Virginia City and other towns in Nevada.

Population movement to the state as a whole continued, and many new immigrants, finding the fertile lands of the valleys in Spanish grants or other large holdings, turned to the foothill region, where they acquired land for farms by patent or homesteading. The acreage of improved farmland in the foothills increased steadily, reaching a peak about 1880, with the greatest expansion occurring away from the early gold mining areas.

The Homestead Act of 1862 was the most common method of land acquisition. Where land had not yet been surveyed, settlers could protect themselves under the Preemption Act of 1841, which allowed the settlement of unsurveyed land with preference for eventual purchase at $1.25 an acre. Surveys took place in time for initial settlement of the northeast to be made under the Homestead Act. This act limited the amount of land that could be acquired by free patent to 160 acres.

The numbers of dairy and beef cattle grew considerably between 1860 and 1880, in the higher parts of the Sierra Nevada, and the number of sheep almost doubled, indicating a move into livestock farming. Movement of cattle from the valley was encouraged by the heavy rains of 1861/62 which led to the death of many cattle, and by drought in 1863 and 1864 during which many herds died of hunger and lack of water. This trend was reinforced by the passing of the "no fence laws" by the state legislature in 1866, which made cattlemen liable for damage done to unfenced crops by their animals. Dry farming in the foothills became still more unprofitable following the replacement of teams by trucks and tractors during the early decades of the twentieth century. Competition from the more fertile valley farms became more intense as transportation costs were reduced by the construction of highways from the Sacramento Valley into the foothills. Except in areas where irrigation water was available, many farms were abandoned to brush and second-growth timber or utilized for extensive livestock production. By the close of the nineteenth century, much of the mountain and foothill rangeland was severely overgrazed in a struggle for forage among the numerous cattle and sheep outfits.

Mules being used to haul logs out of the high country.

New Activities, 1910–50: Lumbering, Hydroelectric Power, Specialized Agriculture

After the turn of the century, large-scale logging became the dominant economic activity in the region. The network of flumes and ditches built by the earlier hydraulic miners was gradually taken over and

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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

Irrigation Management Strategies During the Drought

Providing foothill farmers with information and resources they can use to improve their irrigation management, especially important during California's drought, is a key area of outreach and research for Central Sierra Farm Advisor Lynn Wunderlich.

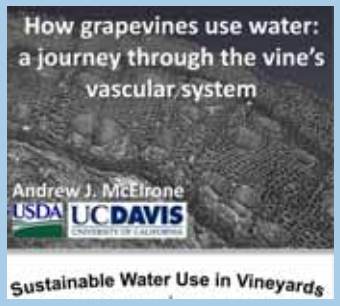
Wunderlich uses a "pressure chamber" (below) to measure plant based (water) stress. Plant leaves are cut and placed into the chamber, equipped with a pressure gauge, and pressure is applied until the point where water is visible while using a hand lens exiting the leaf stem vascular system. UCCE Central Sierra is working with UC Davis researchers to monitor foothill grapes growing on different topographies (slopes), under different irrigation regimes and in different soil types to determine pressure chamber values of stress typical for grape vines grown in the foothills. The research group is working to determine actual vine evapotranspiration (ET), using new instrumentation; in conjunction with measuring plant stress.

The data will help grape growers plan for vine water use, as well as aid California water planners.

UCCE Irrigation workshop speakers (l-r) R.Smith, L. Wunderlich and L. Schwankl demonstrated irrigation management techniques during **a hands on workshop** to 54 foothill growers at an "Inches to Hours" meeting on April 29, 2014, held at the Shenandoah Community Club in Amador.

UCCE gathers **precipitation statistics** from the California Irrigation Management System (CIMIS), then formats and graphs the data **for easy viewing on the UCCE Central Sierra website.** Growers are notified of updates via email.

USDA researcher Andrew McElrone was an invited speaker for **Foothill Grape Day 2014**, **UCCE's annual grape grower meeting.** Andrew's talk, "How grapevines use water: a journey through the vine's vascular system" is just one example of the scientific expertise UCCE brings to foothill growers.



Assisting Foothill Farmers Predict and Manage Crop Disease
UCCE Central Sierra has partnered with individual growers and wineries, UCIPM (UC Integrated Pest Management), grape grower associations and sustainable farming programs such as Fish Friendly Farming, to purchase, install and make publicly available powdery mildew index and weather stations.

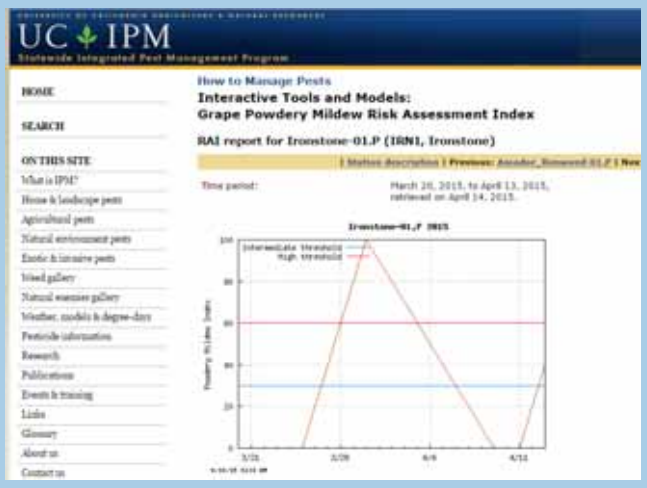
Dr. Doug Gubler, UC Davis Plant Pathologist, inspects the Eagle powdery mildew station in Amador.

We now have 5 powdery mildew index and weather stations across the foothills:

- El Dorado County stations: Lava Cap and Fair Play
- Amador County stations: Eagle and Renwood
- Calaveras County station: Ironstone.

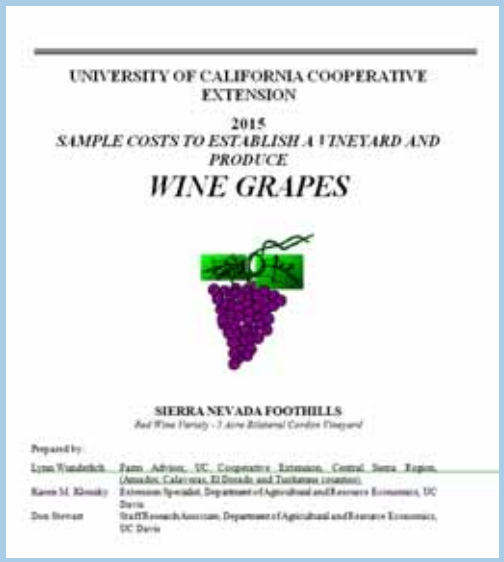
The stations collect canopy temperature and precipitation information and use a model to predict the outbreak of powdery mildew disease, the most significant pest problem for foothill wine grape growers.

The information is available "real time", at no cost to the user, at the UCIPM website (index screen shown at right): http://ucanr.edu/grapepowderymildew



Helping growers to secure the future of their family farms. UCCE is committed to helping agriculture be a sustainable business for foothill farmers and their families. A 2 day, interactive, Farm and Ranch Succession Planning Workshop held in 2015 and sponsored by UCCE Central Sierra brought private professionals like Rodney Carter (standing, near left in photo), Accredited Farm Manager based in Chico, Ca., to the foothills to work with 28 farm family members who attended the workshop.

Providing reliable economic analysis on the costs to establish and grow crops in the foothills. UCCE works with local growers, farm managers, and UC Davis Department of Agricultural and Resource Economics to develop cost study analysis of common foothill grown crops. The cost studies are detailed sample costs, based on agreed upon assumptions, to establish and produce a crop. The studies include cost estimates for preparing ground and infrastructure such as trellising and deer fence, planting the crop, pest control, typical irrigation and crop water needs, harvesting and predicted yield and price analysis. Cost studies are available online at http://coststudies.ucdavis.edu


UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION

2015

SAMPLE COSTS TO ESTABLISH A VINEYARD AND PRODUCE

WINE GRAPES

SIERRA NEVADA FOOTHILLS

Natural Resources & Forestry

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.

New UCCE program trains 48 naturalists in the Central Sierra

"I loved learning how to be a better steward for our natural resources, flora and fauna." Yosemite participant, October 2014

In 2014, UCCE Central Sierra hosted two 40 hour trainings of the California Naturalist program. The program is designed to introduce Californians to California's unique ecology and engage volunteers in stewardship and study of California's natural communities. We met with potential partners across an eight-county region, identified potential training sites and topics, developed Central Sierra-specific curriculum, and subsequently organized two trainings.

Community Education Specialist Rebecca Miller-Cripps organized and led a weeklong intensive training at Yosemite National Park (in partnership with the Sierra Nevada Research Institute of UC Merced) and a semester long course at New Melones Visitor Center (in partnership with the US Bureau of Reclamation). UCCE Central Sierra is hosting an advanced training in fire ecology for naturalists in April 2015.

Participants learn about geology at Yosemite NP

UCCE Staff, Becky Miller Cripps leads students in a botany session at Yosemite

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. Since 2007, our outreach team has made over 8,500 contacts at 287 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 ***17 presentations*** this year making ***535 contacts*** to involve people in the project. The team also posted trainings on collaboration and facilitation for partner state, local, and federal agencies. For more info: http://snamp.cnr.berkeley.edu/

Scotch Broom Gall Mite: A new natural enemy to California

A recent find in El Dorado County has weed scientists, land managers, foresters, botanists, and plant conservationists throughout Northern California really excited over a tiny insect-like animal. The broom gall mite (*Aceria genistae*) which is actually not an insect but more closely related to spiders and ticks has recently taken residence on the invasive plant Scotch broom (*Cytisus scoparius*). Scotch broom was introduced into North America in the mid-1800s from Europe as an ornamental and for erosion control. The bright yellow flowers and rapid growth has made it a prized ornamental however its ability to out-compete native plants and form dense stands has also made it one of California's worst wildland weed's. Since its introduction it has invaded millions of acres throughout the golden state.

UCCE Advisor, Scott Oneto examining damage caused by the gall mite.

Native to Europe, the mite was first found on Scotch broom in the Tacoma, Washington and Portland, Oregon regions in 2005. Since that time the mite has become established throughout western Washington and Oregon and even into parts of British Columbia. As of 2013 the mite had been found as far south as Ashland, Oregon with no occurrences in California. UCCE Advisor, Scott Oneto identified the mite in Spring 2014 after a local landowner brought a sickly Scotch broom plant to the local U.S. Forest Service office.

Roads management workshops and field trips

Rural roads require regular maintenance to ensure continued access, and avoidance of water quality impacts. After wildfires, road owners have an extra burden to maintain roads despite increased erosion and sediment and increased water volume. UCCE collaborated with the Society of American Foresters, California Geological Survey, and CalFire to host all day roads management workshops and field trips in Tahoe (June and July 2013) and in Tuolumne County in December 2013 aimed especially at landowners affected by the Rim Fire.

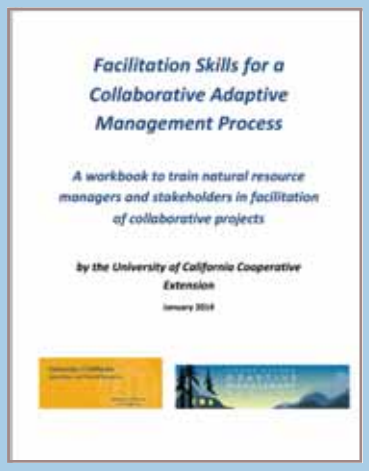
Workshop participants examining a road managed by San Francisco Water and Power in Moccasin, CA.

The Tuolumne workshop included presentations on fundamentals of rural roads, geology and roads, stream crossings, road inventory and treatments, sources of technical and financial assistance and an afternoon field trip to Moccasin view road management approaches. Tahoe field trips were done in collaboration with California State Parks, the US Forest Service, and Homewood Ski Resort. These highlighted road upgrading and decommissioning.

Workshop participants hear about road issues and inventories from Dr. Richard Harris, Society of American Foresters.

Natural Resources & Forestry

Training on Facilitation Skills for Collaboration:



A team of 8 UCCE academics and staff wrote curriculum on collaboration skills (free and downloadable at http://cnr.berkeley.snamp.edu/) that was used to host five four part workshop series. The workbook includes 17 modules written in a 'train-the-trainer' style on framing collaborative processes by identifying project boundaries and constraints, analyzing stakeholders and developing specific desired outcomes. Modules on methods to hold effective meetings include content on developing effective agendas, process rules, and decision making, note taking, and evaluation and follow through. Group dynamics are addressed through identifying stages of discussion, thinking and learning styles and group development. Managing conflict is described through development of key agreements, dealing with difficult behaviors, and prevention and intervention methods.

A total of 115 staff from federal and state forestry, fire, wildlife and research agencies, local agencies and conservation and non-profit organizations attended five workshop series in 2013 and 2014 each with 18 hours of instruction. Workshops were held in Auburn (Placer County), Oakhurst (Madera County), Jackson (Amador County), South Lake Tahoe (El Dorado County) and Marysville (Yuba County). Participant learning outcomes were highest in areas that increased their comfort with collaboration, with strongest growth in understanding in the need for stakeholder participation, how to manage a collaborative process, and managing conflict. Participants said they would be able to use what they learned in the workshops and rated the content as providing new information, ideas, methods and techniques practical and useful knowledge and skills that are applicable to their jobs.

Community Education Specialist Kim Ingram presents facilitation techniques at a collaboration workshop in South Lake Tahoe, October 2014.

Policy, Management and Science - Collaborating on the Mokelumne Watershed

Forage utilization can be monitored across the region by using residual dry matter mapping.

East Bay Municipal Utility District (EBMUD) provides drinking water from the Mokelumne watershed via Pardee and Camanche reservoirs to over 1.3 million people in the East Bay region. EBMUD owns and manages approximately 9,000 acres of surface water and 19,000 acres of surrounding land in the watershed.

These lands have a long history of cattle grazing and EBMUD is committed to managing its land and reservoirs to protect water quality while preserving and promoting the local ranching heritage.

With new policies from EPA to monitor Cryptosporidium and other water borne pathogens in drinking water supplies, EBMUD took actions to help ensure water safety. Now EBMUD is partnering with University of California Cooperative Extension and ranchers to bring together science (UC research), policy (EBMUD and EPA), and management (ranchers and EBMUD) to find sustainable management practices that protect water quality and maintain a sustainable working landscape.

Other Activities Throughout Region

Participants in the Smiling Tree Symposium in Incline Village, NV in July 2014. UCCE Forestry Advisor Susie Kocher teamed up with Master Gardener Bill Probst to talk about tree care and nurturing.

Forestry Advisor Susie Kocher presents a lesson on tree anatomy at the Project Learning Tree training for teachers and environmental educators held in Sonora in August 2014. A brave volunteer is modeling the tree costume.

A field trip held in June 2014 to examine effects of the 2013 American fire on the SNAMP study sites.

Community Education Specialist Anne Lombardo and US Forest Service wildlife biologist Craig Thompson pose with a specimen of the Pacific fisher and an educational calendar designed by Anne.

Post fire landscape in the Rim Fire area burned in August 2013.

Post-fire management workshops

Post fire workshop in Groveland, Oct. 2013.

UCCE Central Sierra held two post fire management workshops to help landowners affected by wildfire understand how to manage their landscapes. Workshops were held in collaboration with NRCS and CalFire in October 2013 for landowners affected by the Rim Fire and in October 2014 for those affected by the 2014 Sand and King fires. Topics covered included erosion control, invasive weeds, road management, reforestation and tax implications. Each workshop had 70 attendees. 90% of participants said information presented was informative and comprehensive and that as a result of the workshop they had a better idea of what to do on their property.

4-H Youth Development

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

Vera M. Allen is a recent graduate of the University of California Berkeley with a B.A. in Classical Studies. Before attending Berkeley she earned her transfer degree, Social Science A.A., Art and Humanities A.A., and American Studies A.A. at Folsom Lake College, where she also participated in Student Government and was editor of the Talon College Press. She is a long time resident of Amador County and has been active with several groups in the community including the Amador County Chamber of Commerce and the Jackson Police Department's Police Activities League. Vera still volunteers with Jackson P.A.L. where she heads up the Junior Giants Baseball program, a free program for boys and girls five to eighteen. Vera is also a past 4-H and Argonaut FFA member. While in 4-H and FFA, Vera participated in Leadership and Citizenship, was the Sectional Reporter for FFA, and raised sheep, poultry, and swine. Vera is overseeing the management of both the Amador and El Dorado county 4-H programs.

Vera Allen, 4-H Program Representative, Amador and El Dorado counties

4-H Afterschool providers learn how to incorporate SET into their daily activities.

Developing Volunteer Capacity

Volunteer development remains a key focus for the 4-H Advisor, JoLynn Miller. In 2014, JoLynn created and is co-chairing a new statewide workgroup to assess volunteer needs, then develop tools to help meet those needs. Currently, they are creating a needs assessment which will be implemented in the 2015 year.

Youth Development Training

Partnering with local afterschool providers, 4-H Advisor JoLynn Miller provides training in positive youth development areas such as science, engineering, and technology, ages and stages of youth development, and creating safe spaces.

New Events in Central Sierra 4-H!

UCCE Central Sierra is proud to offer its youth the following new projects: amateur radio, rocketry, ukulele, puppeteering, entomology, and homing pigeons.

"At camp I learned you need to work together" Female camper age 11

Summer Camp

Summer of 2014 was an exciting time in the Central Sierra. UCCE in El Dorado and Tuolumne counties offered three ***new*** summer camps. Youth got to master new skills, gain confidence and feel what it's like to be part of a community. Camp was staffed by teens, ages 15-18, who received hours of training in best-practices of camp management. Two sets of counselors planned, organized and lead activities for younger age youth during two overnight camps (one held in Pinecrest and the other in Lake Tahoe).

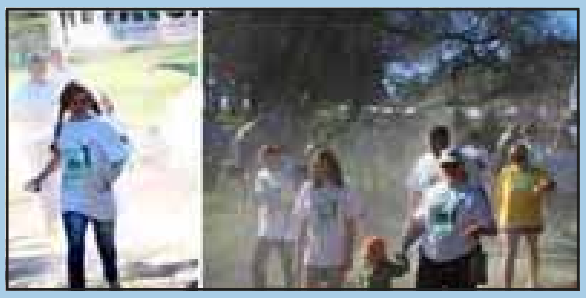
Youth participate in the Central Sierra's first Backcountry Horse Camp

Adult chaperones partnered with youth to offer support during the camp. Over 110 youth participated in these two traditional residential summer camps. Detailed evaluations of the two residential summer camps were completed and all youth rated their enjoyment at over 7 (on a 1 to 10 scale)!

"The best part of camp was meeting new people, hanging out in my cabin, and the activities" Female camper, Age 12

Youth participated in activities such as archery, team building, crafts, canoeing, hiking, star gazing, water bottle rockets, and so much more. Many youth reported learning skills such as "how to make friends" and "how to be a leader".

In addition, El Dorado County hosted a Backcountry Horse Camp where teens took their horses into the back country for one week and learned to ***Leave No Trace*** and horsemanship skills in a tent camp setting. Teens spent the days on trails in the backcountry and back at camp they honed their skills on packing, ***Leave No Trace***, horse care and backcountry techniques.



Participants make their way through the 5K course.

Color Me Green Fun Run

On March 7, 2015, El Dorado County 4-H Members hosted Color Me Green 5K Run. This first annual event was designed to encourage community members to increase their physical activity while also having fun! During the 5K run, participants got showered with green colored dye as they passed through each marker.

The goal of the 5K was to encourage the health of El Dorado County. In addition to planning, organizing, and leading the run, 4-H youth offered pre-run training and nutrition education to all registered participants. 212 runners participated and 65 volunteers staffed the 5K event.

In addition to the run, 4-H held a wellness fair after the run where participants learned about nutrition, fitness, health and safety from local organizations and businesses.

350 adult 4-H volunteers taught and mentored ***1,469 youth*** in the 4-H Youth Development Program during 2014-15.

4-H Youth Development

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 in the following 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
- Collected items for pet shelter & food bank

Color Me Green 5K Run planning committee having fun before the race.

Amador County

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

- Entered floats in Sutter Creek Parade of Lights
- Collected food donations for the Interfaith Food Bank
- Hosted an informational Booth First 5's Holiday Children's Festival
- Worked at Dandelion Days by providing setup, cleanup, and security
- Provided parking attendants for Dandelion Days
- Served & cleaned up at the Upcountry Rotary Crab Feed
- Visited California State Representatives at the State Capitol to invite them to Ag Day at the Capitol
- Participated and volunteered at North Sectional Presentation Day
- Sold tickets for the Great Sutter Creek Duck Race
- Hosted a booth at the Great Sutter Creek Duck Race that had a petting zoo, and pony rides
- Assisted with setup and cleanup at the Great Sutter Creek Duck Race
- Served at the Spaghetti Western Dinner
- Hosted an informational booth at the Amador County Children's Activities Fair
- Hosted a statewide Small Animal Field Day
- Participated and volunteered at State Field Day
- Served as volunteers at 2nd Generation Fundraiser Dinner where youth helped with setup, serving & cleanup
- Volunteered to setup pens at Amador Fair
- Hosted the Amador County Youth Poultry Show
- Volunteered and presented at Ironstone Concours d'Elegance
- Purchased and donated three Thanksgiving dinners and four additional turkeys for needy families

Calaveras County

4-H members built benches for a community park in Calaveras County.

- Held petting zoo at Lumberjack Days
- Volunteered at Copperopolis Community Garden
- Organized and held numerous canned food drives
- Donated to help 5 foster children through Children & Family Services by purchasing holiday gifts
- Volunteered at Ironstone Concours d'Elegance
- Baked & distributed cookies for Thanksgiving basket donations
- Cleaned up Mountain Ranch Park
- Volunteered in Valley Springs Annual Parade
- Provided youth leadership at 4-H Camp
- Provided adult leadership at 4-H Horse Camp
- Promoted agriculture projects at Agricultural Awareness Day
- Raised funds for "Friends of the Fair"
- Volunteered at Angels Camp Christmas Parade
- Volunteered at Murphys Irish Days Parade & celebration
- Built above-ground planter boxes for community gardens
- Collected cell phones for soldiers
- Made and sent holiday cards to recovering soldiers

4-H Youth Development

"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

Tuolumne County

- Collected canned food for the food bank
- Assembled holiday food baskets for Amador Tuolumne Community Action Agency
- Purchased holiday gifts for two youth who wouldn't have had any otherwise
- Purchased holiday gifts for seniors in a care facility
- Donated items for a baby basket (donated to first baby born during National 4-H Week)
- Volunteered at Ironstone Concours d'Elegance
- Pet food drive
- Collected blankets for the Lambert Youth Center
- Made banner for 4-H Week at local schools
- Made pine cone turkey decorations for the Groveland Thanksgiving Dinner
- Gathered stuffing mixes for the 100 Groveland Christmas baskets
- Served dinner for the Lion's Club
- Volunteered at the Tuolumne Trails Kids Camp Work Day
- Petting Zoo at the stables for a Groveland Historical Society BBQ
- BBQ Fundraiser for Rehorse Rescue
- Cooked and served at the Community Patrol Dinner
- Cooked for the MLCS Fundraiser
- Cooked for the GRCS fundraiser

UCCE Partnerships

In 2014, El Dorado County 4-H partnered with Master Gardeners on a Service Learning project, Pollinator Garden. The Northside Nuggets 4-H club adopted a garden spot at the fairgrounds. The club was concerned about the decline in pollinators given their importance in the ecosystem. The youth decided they wanted to build a garden that would attract pollinators and consulted with UCCE Master Gardeners, who provided knowledge and plant materials for the 4-H club as well as mentorship through the garden installation. Youth made educational signage to teach the public about the importance of pollinators and to educate about the plants in the garden.

In 2014, 4-H collaborated on two projects with the UCCE Master Food Preservers. The first was a 4-H food preservation project. 15 youth learned proper canning and preservation techniques from Master Food Preservers. In addition to the project 4-H members attended Junior Jam's and Jellies, conducted by Master Food Preservers. Youth made jams and jellies and entered them into the county fair competition. Over 100 youth entries were received at the fair!

Tuolumne County 4-H and the Senior Youth Partnership have once again strengthened their partnership. Youth enrolled in a SYP PM Club are also enrolled in 4-H. This partnership offers training and development to SYP staff in addition to 4-H teen leaders teaching classes at PM Club sits.

adapted for power, irrigation, and domestic uses. The first application for water rights for generating hydroelectric power was filed in 1891 by the Cornish manager of a gold mine in Nevada County. An expansion of crop agriculture during and following the agricultural boom of the First World War brought renewed prosperity to the region. In the foothills the area in orchard crops expanded rapidly in response to the organization of irrigation districts and the rehabilitation or new construction of irrigation facilities. Pears and other fruit trees were planted on a number of ridge areas where fertile soils and water were available, as in the regions adjoining Placerville, Auburn, Grass Valley, Oroville, and Paradise. By 1924 Placer and El Dorado counties had 15% of the state's pear trees.

Increased demand during the world wars and widespread poverty during the 1930s also affected use of public grazing lands. During these periods of national crises, there was increased livestock use of national forests and other public lands throughout the West, and often inappropriate stocking levels were disregarded. During the First World War demand for wool and mutton was high and so sheep grazing increased, while during World War II cattle usage rose. The foot-and mouth disease epidemic of 1924–25 permanently reduced grazing in the Stanislaus National Forest, where all livestock for that season were slaughtered. Sonora Pass was closed to transient sheep to limit the spread of the disease, and so grazing in the eastern Sierra was also affected. After 1925, stocking in the Stanislaus National Forest was reduced to 66% of previous levels, and the closure of Sonora Pass to sheep ended the driveway use of the forest.

In many areas a series of drought years between 1919 and 1935 and overstocking during the First World War led to depletion of public grazing lands. However, it was only after passage of the Taylor Grazing Act in 1934 that much attention was paid to rangeland carrying capacities.

For economic reasons many grazing allotments changed livestock class from sheep to cattle in the interwar years. Permitted usage of public lands rose during the Second World War but not to the pre-1920 levels. In some areas actual usage did not increase as cattlemen concentrated on feedlot management because of the shortage of manpower for range riding and the high cost of transportation during the war years. After this period there was a permanent decline in stocking levels on public grazing lands.

Farm values also fell. In 1880 no county in the Sierra Nevada had farms with an average value less than twice that of California farms as a whole. By 1925 the agricultural census recorded only Alpine, Lassen, Mono, and Sierra County farms as having values above the state average. At this time farms in Tuolumne County had become the poorest in the state.

The agricultural boom also resulted in a revival of population growth in the foothill region. The population of El Dorado County, which had fallen steadily from its peak of 40,000 persons in 1852 to only 6,400 in 1920, began to rise again. However, the more isolated rural areas continued to lose people while population became concentrated in the towns, suburban areas, and fruit-producing districts of the foothills.

The Beginning 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.

At this time there were a number of 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

Cont. Pg.28

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.

Educational Events

Free public classes; informational booths at farmers markets, county fairs and local events; Farm and Ag Day activities for local youth, as well as joint community events are the core educational events regularly hosted by Master Gardeners throughout the Central Sierra.

This last year Master Gardeners led 103 free public education classes on a wide array of gardening topics including:

- Fire & Rain: Defensible Space & Drought Planning,
- Identifying & Solving Tree Problems & Removing Tree Hazards
- Water wise Gardening
- Myths About Garden Remedies
- Vermicomposting: Worms + Kitchen Scraps = Gold
- What's Wrong With Your Plant?

Master Gardeners gave home horticulture advice over the summer at all four county fairs and at 15 different farmers market sites.

This year we trained ***114*** new volunteers, bringing the UCCE Central Sierra Master Gardener membership to ***451***. UCCE Central Sierra Master Gardener volunteers donated ***25,179*** hours during 2014-2015 year.

Master Gardener Christy Daughtery at the Lake Tahoe Basin Wildfire Awareness Week.

The public is welcome to call Master Gardener offices for help with gardening issues.

Amador:	**209-223-6838**
Calaveras:	**209-754-2880**
El Dorado:	**530-621-5512**
Tuolumne:	**209-533-5912**
Lake Tahoe:	**530-314-8383**

Landscape Conservation Tour

In Lake Tahoe the Master Gardeners partnered with the Tahoe Resource Conservation District for the 7th Lake Tahoe Conservation Landscape Tour. The 2014 theme was "Vegetable Gardens of Meyers." The tour highlighted 6 distinct yet successful methods of vegetable gardening at an elevation of 6,250 ft. Participants enjoyed presentations and hand-on displays.

Tomato Tasting

In Amador County, Master Gardeners hosted their annual tomato tasting competition at the Sutter Creek Farmers Market. Contestants brought their favorite tomatoes to be judged. Attendees sampled the entries and picked new favorites to plant. Master Gardeners were on hand to address issues with the current growing season and to offer suggestions on ways to improve future home tomato production.

Garden Tour & Smart Water Expo

In Tuolumne County, Master Gardeners hosted their 19th annual self-guided garden tour. Plants were labeled for identification as well as for drought tolerance and deer resistance. Master Gardeners also gave water-wise presentations at The Nest Nursery in Twain Harte.

School Gardens

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

Master Gardeners in Calaveras County are so involved with so school gardens that local PTOs provide the tuition to train several Master Gardeners in exchange for volunteer at their respective schools.

At South Lake Tahoe the Master Gardeners partnered with Sierra House Elementary School, an assortment of community organizations and active community members to construct two 18 foot four-season Growing Domes. The Growing Domes are used as both an educational tool and a source for healthy food at the elementary school. UCCE Master Gardeners are assisting in garden lessons in the classroom in partnership with UCCE Lake Tahoe CalFresh Program.

Master Gardener 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.

El Dorado County

Located on 1.5 acres of El Dorado County Office of Education property behind the Folsom Lake College - El Dorado Center, the Sherwood Demonstration Garden will host more than 15 specialized gardens. In anticipation of a fall grand-opening, Master Gardeners have begun teaching classes at the demonstration garden about pruning roses and ornamental grasses, installing irrigation and propagating plants.

Calaveras County

At the edge of the San Andreas Government Center sits the Master demonstration garden with 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. Master Gardeners host a monthly "Open Garden Day" events to lead a variety of free classes and demonstrations. This year they partnered with the Master Food Preservers to complete the produce cycle, teaching how to preserve fruits and vegetables grown in home gardens.

Tuolumne County

The Tuolumne Master Gardener Demonstration Garden is located at the Cassina Alternative High School in Sonora. In addition to various fruit and vegetable garden areas, it has a rain water collection system developed with the help of the shop class at the school. Master Gardeners conduct monthly Open Garden Day events on multiple gardening topics and provide tours to educate and inspire home gardeners.

Amador County

The Master Gardeners are building a new Teaching Garden next to the Amador County General Services Building on Airport Road. As an example of what can be done with a poor garden site, they are transforming a fenced area that formerly housed mosquito fish tanks into a variety of small garden plots using raised and vertical gardening beds, shade cloth, and repurposed materials.

New Gardening Projects

Master Gardeners meet the growing home horticultural needs of our community by expanding our educational offerings. Here are some of the new exciting projects Master Gardeners are doing in the community!

Cameron Park Classes

After conducting a six-month survey to find out where and when El Dorado County residents wanted gardening classes and on what topics, the Master Gardeners started offering monthly classes at the Cameron Park Community Center in 2015. Public participation has been great! The first class, Citrusmania, had over 75 attendees.

Combination Master Gardener/Master Food Preserver classes

Master Gardeners in Amador, El Dorado and Calaveras counties teamed up with the Master Food Preservers to present several classes that cover the complete lifecycle of garden produce, from planting to harvesting to storing and eating. Classes such as Tons of Tomatoes and Zillions of Zuchini, Grow Your Own Bean Soup, Citrusmania give families ideas on what to do with their harvest after successfully implementing the researched based techniques taught by Master Gardeners.

Junk Your Juniper

In Lake Tahoe, Master Gardeners created a Junk Your Juniper Program, which encouraged homeowners to make their landscapes more fire safe by removing highly flammable vegetation. The program provided homeowners with plant vouchers for removed juniper bushes.

Family Harvest Day

The new Family Harvest Day in Calaveras County gave families the opportunity to pick, taste, and enjoy crops planted at the annual spring Kids Day in the Garden. Veggies harvested from the Pizza Garden made a Pizza on a Cracker. Families also prepared Garden Bounty Salsa after enjoying a veggie scavenger hunt. Other activities included make-and-take bird feeders, seed tapes for fall planting, and herb Tussy Mussies.

Building a Water Use Efficient Community Conference

In response to the ongoing Local State of Emergency due to drought conditions and calls for significant water use reductions, Master Gardeners in Tuolumne County worked with local organizations to produce a public conference called ***Building a Water Use Efficient Community***. Master Gardeners taught which landscape materials are best for outdoor water use efficiency and provided instruction and demonstrations on choosing and installing water efficient plants and replacing lawn with low water use landscape.

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 over $45,000*** to support their projects in the Central Sierra.

Nutrition, Family & Consumer Science

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.

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.

UNIVERSITY of CALIFORNIA
calfresh Nutrition Education

The UCCE Nutrition Education Program has five Family Nutrition Educators who work with low-income youth and their families in El Dorado, Amador, Calaveras and Tuolumne counties. The aim is to improve their nutrition knowledge, food resource management skills, food safety, and physical activity and eating behaviors. These programs are funded by grants from USDA. UCCE Central Sierra received $513,000 this past year for these programs. 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 education to **5520** students in four counties.
- Trained and supported **95** teachers and parent volunteers in schools.
- Provided direct nutrition education to **827** adults.
- Reached **9770** individuals through newsletters, websites and community events.
- Provided expertise and resources to develop or enhance school gardens for nutrition education.
- Provided expertise and resources to update School Wellness Plans.
- Provided expertise and resources to school cafeterias through the Smart Lunchroom Program.
- Provided bi-monthly tasting of healthy foods to students in our participating schools.
- After completing *Eat Smart & Be Active* classes, 61% of the adult participants planned to increase their physical activity.
- After lessons and food tasting during 337 school classes, 64% of the students were willing to ask for the target food at home.
- **65%** of students indicated they would ask for the item at home.
- **42%** of the adults indicated the intent to decrease sweetened beverage consumption.

Master Food Preserver Program

Program Overview

The UCCE Master Food Preserver mission is to teach research-based practices of safe home food preservation to the residents of California. Certified 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 2014-2015 the program trained ***40*** volunteers, bringing the total volunteer base to ***95***.

Key Projects

Public Education Classes

Master Food Preservers conducted 39 well attended public classes on core canning topics such as pressure canning, boiling water canning, freezing and dehydrating. They enhanced the content with practical usage for jams & jellies, delicious desserts, and colorful pickles, and tangy & sweet accompaniments.

In 2014 and 2015, the Master Food Preservers of El Dorado County partnered with the El Dorado County Fairgrounds to present their summer/fall series of free public classes at the fairgrounds.

In Amador and Calaveras counties the members of the new Master Food Preserver program created in 2012 offered a series of exciting classes targeting a wide variety of community interests.

The best way to learn to make sauerkraut is to do it yourself!

Selection of dried foods

- For hunters they taught how to safety *Preserve Fish and Wild Game*.
- For those starting out the new year by cutting down on sugar and salt, they offered *Healthy Starts: Low Sugar and Salt-Free Options*.
- For those sharing home preserved foods as gifts, they offered a *Holiday Fav*orites class that highlighted great (and safe!) food gift ideas,
- For those who like a steaming hot bowl of home made soup to keep warm in the winter, they taught a *Sizzling Soups* class and explained how to take any soup recipe and modify it to be safely canned.
- For the campers and hikers the taught how to make granola bars, trail mix, dried spaghetti sauce, and even scram bled eggs using dehydrated foods at the *Campers' De*

Key Projects

Public Education Classes and Events

The Master Food Preservers stepped out of the classroom and into the community to educate people on current food preservation techniques that help ensure their safety when canning, freezing and dehydrating their produce.

Educational Events:

Master Food Preservers staff the El Dorado County Fair booth.

- ***Informational booths*** at the Amador, Calaveras and El Dorado County fairs and at farmers markets in Garden Valley and Placerville.

- ***Guest speakers*** at Cameron Park Newcomers Outreach, Auburn Home Show, Girl Scout Leader Training, Eisley's Nursery, the 2014 Statewide UC Master Gardener Conference, Contra Costa Master Gardeners, El Dorado Library, Calaveras Family Harvest Day, and Sierra Windfall Festival.

- ***Weekly summer newspaper articles*** in the Mt. Democrat. In El Dorado County, volunteers write engaging articles on topics related to the upcoming public classes, sharing the reasons why the process is important and tasty recipes to make at home.

Community Involvement

- ***County Fair Preserved Food Judging Coordination and Assistance*** at the El Dorado and Amador County Fairs. Master Food Preserver volunteers provided their expertise in home food preservation helping the staff at the county fairs. In El Dorado County they annually process all preserved food entry receiving and pickup. Volunteers assisted the judges at the Amador County Fair and were the judges for the Tuolumne County fair. In El Dorado County, the volunteers coordinate the entire preserved food judging day.

Eric Wickstrom tests the accuracy of a pressure canner gauge.

- ***Pressure Canner Gauge Testing:*** Low acid foods must reach 240°F during processing to destroy botulism spores; a temperature that can only be reached using a pressure canner. Gauges on pressure canners must be tested annually to ensure that food is being safely canned; an inaccurate gauge can lead to under-processed food which can be a safety hazard. The Master Food Preservers provide free gauge testing for the public in the Amador and El Dorado offices. In the 2014-2015 timeframe they tested over 35 pressure canners.

Master Food Preserver Program

New Projects

Fair Judging Workshop

As a result of the increased interest in home food preservation generated by the Master Food Preservers and the growth of sustainable food movements, fair participation in the home arts is steadily increasing. The Master Food Preservers of El Dorado County led a full-day workshop on how to judge home preserved foods at county and state fairs, drawing attendees from as far away as Los Angeles!

Attendees left with a preserved food judging manual, an understanding of the criteria used by preserved food judges, and the experience judging samples at the workshop. As a result of completing the workshop, attendees were qualified to act as a judge at fairs. Plus, they had more knowledge about how to increase their odds of winning a blue ribbon!

Master Food Preserver Jane Alexander shares the fine points of judging.

Fair Judging

This year, in addition to providing the judging support for preserved foods at the county fairs, the Master Food Preservers also provided a judge! UCCE Master Food Preserver Mary Grove judged fair entries at the El Dorado County Fair, the Tuolumne County Fair, and the California State Fair.

Mary Grove judges jams while Pati Kenny and Suzanne Egger assist.

Joint Master Food Preserver / Master Gardener Classes

Master Food Preservers teamed up with Master Gardeners in Amador, El Dorado and Calaveras counties to present several classes that gave examples of what to do with the food grown in home gardens so it doesn't rot in the kitchen and can be safely enjoyed throughout the year. In 2014, ***three*** joint classes were presented. They were so successful that ***nine*** classes are scheduled for 2015 in El Dorado, Amador and Calaveras counties, such as:

- Tons of Tomatoes and Zillions of Zucchini
- Grow Your Own Bean Soup
- Citrusmania
- Growing, Harvesting, Curing and Preserving Olives
- Tomatoes: From Seed to Pot
- Apples, Pears and More: From Garden to Table
- Holiday Gifts from the Kitchen & Garden
- Grapes: Propagation/Care to Juicing & Jamming

Judi and Jim Johnson enjoy learning about how to use and preserve lemons at the Citrusmania class.

Master Food Preserver Youth Projects

Creating an interest in safe home food preservation with children hopefully grows into a lifetime of passion for sustainable food systems. Master Food Preservers worked with youth at multiple events in El Dorado, Amador and Calaveras counties throughout the year.

At Ag Days and Farm Days, Master Food Preservers taught children how to peel apples for homemade apple sauce and introduced them to the wonderful world of colorful pickles.

In El Dorado County the Master Food Preservers hosted a five-month 4-H food preservation project. Here they zest lemons to make citrus flavored salt.

Jr.'s Jams & Jellies

For the third year the Master Food Preservers presented this free hands-on class to teach children how to make their own jam and jelly. Each of the 42 participants took home at least one jar and entered two jars in the county fair. This event was a collaborative effort with El Dorado Disposal and the El Dorado County Fair Grounds.

The success of the youth preservation projects showed at the county fair with more than 120 youth entries in the preserved food categories!

Master Food Preserver Amy Phillips works with Hope Disney at the 2015 Jr. Jams & Jellies to make sure Hope's strawberry jam headspace is just right!

that a national system of extending agricultural knowledge was necessary, there was less agreement on how to create such a system.

Beginning in 1903, a historic partnership between land-grant universities and the United States Department of Agriculture (USDA) developed an innovative system of farmer education known as the Farmer's Cooperative Demonstration Program. This program was based on farmer-led demonstrations, and was popular and successful throughout the southern states. The program placed an educator, or "agent," in counties to work with farmers and support their on-farm demonstrations. This model was the foundation for what became the Smith-Lever Act of 1914. 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.

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

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 farm was opened in Davisville, a site that 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.

UCCE Farm Advisor Dick Bethel and County Agricultural Commissioner Ed Delfino, examine winegrapes from an El Dorado County test plot. Circa 1960's.

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. 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.

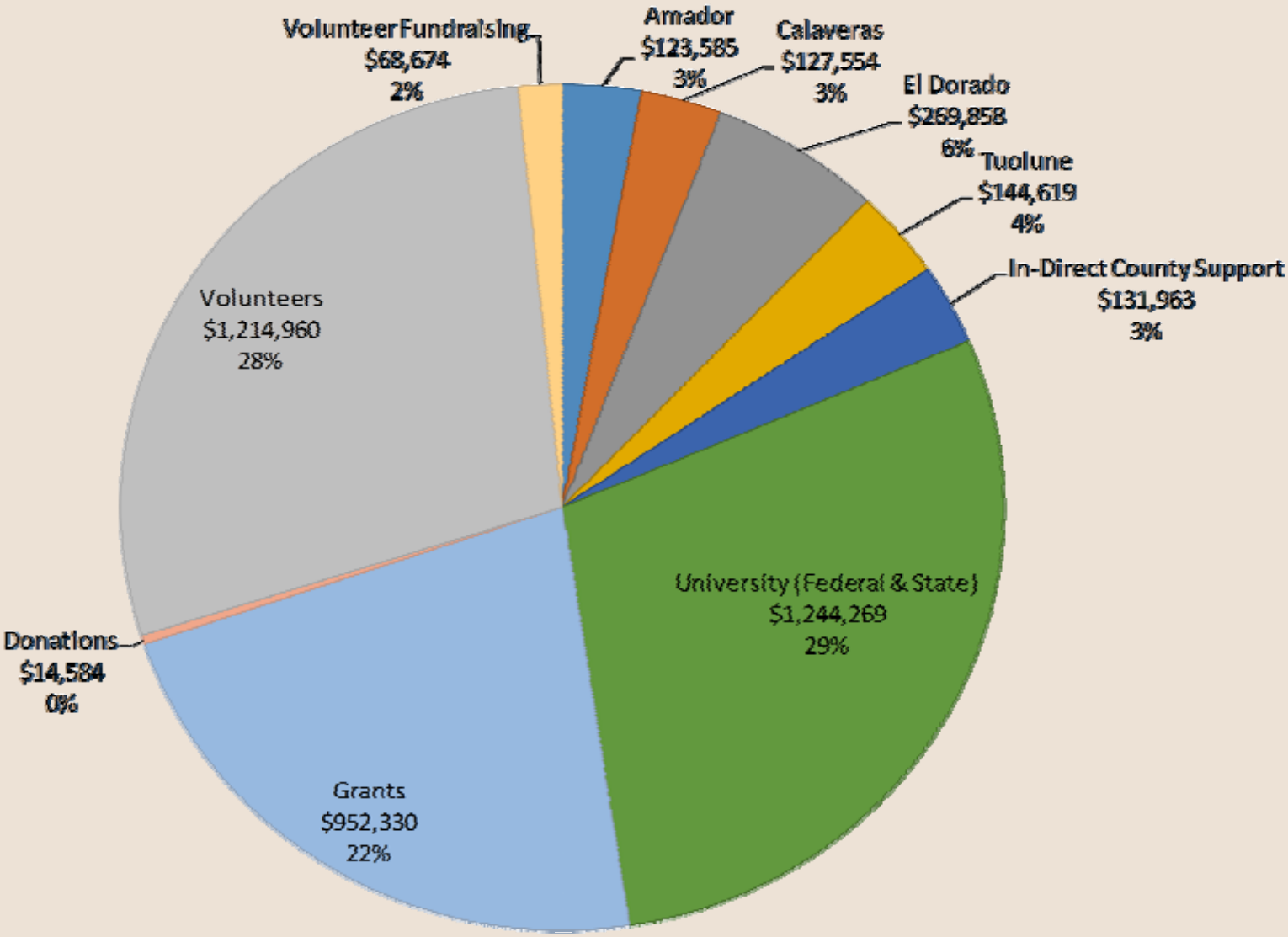
The Suburbanization of Agriculture, 1950 to the Present

Sierra Nevada agriculture in the second half of the twentieth century is characterized by increased specialization of production, greater diversity of products, increased use of chemical inputs and integrated pest management (IPM) from the 1970s, and the development of organic farming.

Although average household incomes remain generally low in the Sierra Nevada, as in most rural areas, some counties have shown remarkable variation over time. There is a worldwide trend toward an increase in farm size in order to take advantage of economies of scale as levels of mechanization and commercialization increase, and California has been a leader in the United States. However, this trend is not so clear in the Sierra Nevada. Throughout much of the Sierra, both farm numbers and farm size tends to be on the increase, reflecting an expansion of farmland acreage.

University of California Cooperative Extension Central Sierra

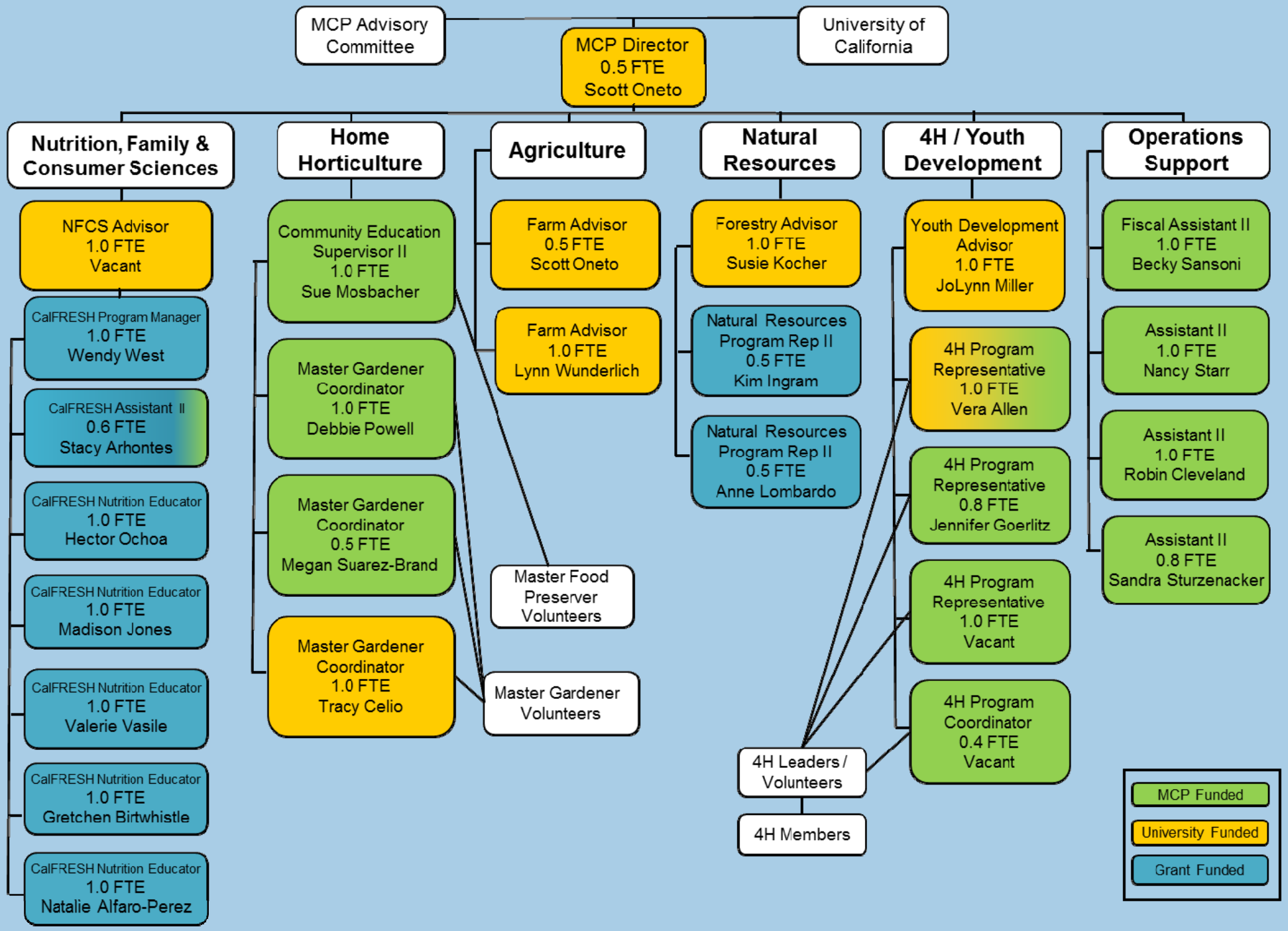
Serving Amador, Calaveras, El Dorado and Tuolumne counties



Total 2014/15: $4,292,396

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

University of California Cooperative Extension Central Sierra MCP



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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