



Central Sierra

Calaveras County

Annual Report | 2022 - 2023

The Central Sierra stretches from the foothills above the Sacramento Valley, through rugged mountains to Lake Tahoe, south through the wine country in the foothills of Amador and Calaveras counties, and to the edges of Tuolumne County. These "Golden Counties" of California have terrains as diverse as their populations. The pioneering spirit that drew gold-seekers West still thrives in the Mother Lode where our Central Sierra counties remain rich in opportunity and prosperous through their people.

The University of California Cooperative Extension of the Central Sierra territory provides science-based information and educational programs to solve local issues in areas of agriculture, natural resources, nutrition, and youth development that improve social, economic, and environmental quality for all residents of Calaveras County.

We are grateful for the community participation, partnerships, and support of our programs and activities that made 2022-2023 a success. On behalf of our entire team, we are pleased to share our Annual Report with you.



UCCE Funding

\$460,002

University

\$173,037

County

\$436,964

Advisor-Generated
Gifts and Grants

\$41,634

Raised by Volunteers to
Support Local Programs



37
academic-led
workshops,
field days, and
classes with
507
participants



2,595
total
educational
interactions
with the
public



10
news media
programs/
mentions



7
peer-
reviewed/
audience-
requested
publications



33
new certified
California
Naturalists
stewarding
the
environment



191
volunteers
donated
9,062
hours of
service -- a
value of
\$338,194



UC MASTER GARDENERS

Promoting healthy people and communities

Calaveras Master Gardeners promote gardening opportunities for the youth in Calaveras County. Master Gardeners through the years have been involved in all of the Calaveras Unified School District school gardens, Michelson School Garden, the yearly Agriculture Day at the Fair Grounds, and providing events for children at the Demonstration Garden located on the Calaveras Government grounds such as "Kid's Day at the Garden", "Summer Camp" in June, and a new activity called "Autumn Harvest Festival".

The Michelson School Garden Project was featured at the Statewide Master Gardener Conference last October via poster session. Over 20 years ago retired school teacher, Calaveras Master Gardener Barbara Lashbrook recognized the need for an educational program based on garden principals for the students of Michelson Elementary School. The original program was very simple, but through the years has expanded to include a vegetable garden, a native plant area, and also a native tree area. Calaveras Master Gardener Claudia Beymer has carried on with the program and improved it, after Barbara Lashbrook retired, with the help of many Master Gardeners.

The results of this effort:

Every 3rd grade student for over 20 years has received an intensive garden education. Students are able to eat what they grow which increases produce consumption. Gives students an opportunity to shine and fosters an interest in the natural world.

The Calaveras Master Gardeners have 82 volunteers and of those: 3 volunteers have over 2500 volunteer hours and 8 have over 1,000 volunteer hours. They are a dedicated team of volunteers that are also dedicated to improving the lives of the community.

The Calaveras Master Gardeners are continuing to keep the Demonstration Gardener open every Thursday. The Demonstration Garden is located on the Calaveras County Government Grounds (891 Mountain Ranch Rd., San Andreas) and they are hoping that with the new hours, it will be easier for government employees to drop by. Everyone is welcome to have their lunch at the garden and there are plenty of tables and chairs to do so. All are welcome to drop in to buy plants, enjoy the garden, share in the harvest, share seeds and cuttings and ask for advice.

The plant propagation area is open for all to look at the plants for sale and are available for purchase. We have had some hard freezes, so now is a good time to check out these frost hardy plants.

The Master Gardeners are continuing to share produce with the community. We accept produce from the community and Master Gardeners and share it at no cost. San Andreas is a food desert, so having produce available for the community is an important feature. Leftover produce is given to the Senior Center for their meals program on Thursday afternoon.

The Seed Exchange is available to all that visit the Demonstration Garden. Master Gardeners accept open packets and homegrown seeds. They ask that the seeds are labeled and please leave your name (and email) in case they have any questions. There is a good variety of seeds available since they have received quite a few seed donations.



Calaveras Master Gardeners share the harvest of the garden with the public every Thursday at the Demonstration Garden.



Debbie Powell

Master Gardener Program Coordinator



Sue Mosbacher

Master Food Preserver Program Coordinator

FORESTRY

Protecting California's natural resources

Increased forestry efficiency

Catastrophic wildfire has become a new and destructive reality for California. The frequency, severity, seasonality, and extent of rangeland wildfires has greatly accelerated in the past decades. Given an increasingly variable climate, these trends are expected to continue. A significant proportion of the lands impacted by catastrophic wildfire also supply forage essential to sustaining California's livestock ranching industry. Land managers will need all available tools, including livestock grazing, to adapt to changing conditions.

Developing cost-effective strategies to manage fuel loads across these fire-prone landscapes will require local, state, and federal management and policy communities to address key considerations for livestock management, environmental protection and increased forestry efficiency.



Scott Oneto shows how to calibrate herbicide application to maintain a fuel reduction project. September 16th, 2023. Photo by: Susie Kocher

Building climate-resilient communities/ecosystems

Improved management and use of land



Two local forest landowners learning how to use and maintain appropriate hand tools for vegetation management. June 10th, 2023 at Blodgett Forest Research Station, Georgetown, CA. Photo by: Susie Kocher

UC Cooperative Extension (UCCE) Advisors and an Academic Coordinator deliver the Forest Stewardship workshop series to empower private landowners to improve the resilience of their forests. Five nine-week session workshop cohorts were conducted in 2023 in Napa, Trinity, Solano-Sacramento, San Bernardino and Santa Clara-Santa Cruz Counties reaching 113 participants, for a total of 512 since the series began in 2020. UCCE continues to track participants who take advantage of a free initial site visit by a Registered Professional Forester (RPF) upon their complete the course. Since 2020, 88 workshop participants adopted UCCE's recommended practice by initiating and completing the RPF visit. Together these forest landowners manage over 9,167 acres of forestland in California.

Three Calaveras County landowners had their initial RPF site visit covering 175 acres. The RPF visit typically leads to the development of a forest management plan and implementation of forest management activities, improving overall forest health and resiliency, and reducing the negative effects of wildfire. One Amador County participant is currently applying for CFIP cost-share funding as a result of the workshop and site visit.

Additionally, the Forest Stewardship program held two field days at Blodgett Research Forest in El Dorado County (DIY Hand Tools for Vegetation Management, and Cone & Seed Collection), and co-facilitated a Vegetation Management in Fuel Breaks field day in Amador County reaching 45 local residents.



Scott Oneto
Farm Advisor



Susie Kocher
Forestry & Natural Resources Advisor

AGRICULTURE & NATURAL RESOURCES

Improved industry representation and stakeholder collaboration on regional projects

Protecting natural resources and promoting economic prosperity are complementary to each other and UCCE continued to work toward these goals by bringing together stakeholders in the biomass and forest products sectors. UCCE worked with local industry partners, such as Yosemite Clean Energy, Heartwood Biomass, and Kodama Systems, and community leaders on needs assessment and grants to promote locally sourced value-added forest and biomass products.

Needs assessment was developed to determine immediate needs and long-term challenges among the forestand biomass products sectors through in-person meetings and surveys.

Collaborations aim to help promote local bioenergy and wood products projects. Several grant proposals, for example, the CalFire Workforce Development grant and the USFS Wood Innovations grant, are underway aimed to address some of the challenges described during the needs assessment, including workforce training, industry partner engagement, and feedstock reliability. A network of business partners developed over the past year is expected to continue to expand through future outreach events, including in-person meetings, conferences, workshops, field trips, and research projects, etc. Through these events, industry partners would get a chance to engage with community leaders and non-profits to expand their businesses and establish potential supply chain. Local residents would learn about alternative options and the possibility of making value-added products with biomass left on their lands.

Promoting economic prosperity in California

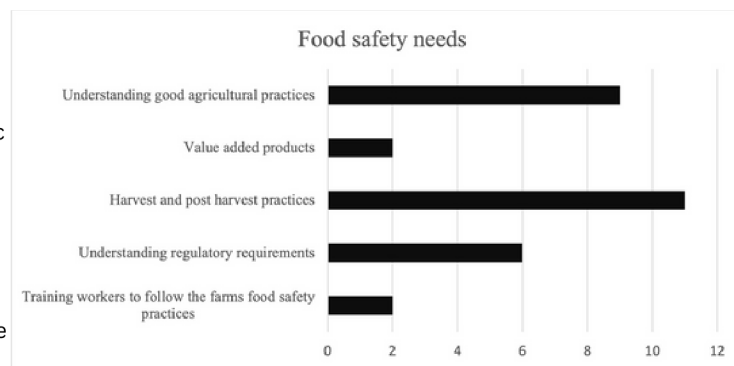
Increased agriculture and forestry efficiency

A needs assessment is an important component of program planning, enabling the establishment of priorities based on identified needs. It involves a systematic process to determine measurable gaps between current and desired conditions. Therefore, it is imperative to design programs that specifically target local issues and priorities.

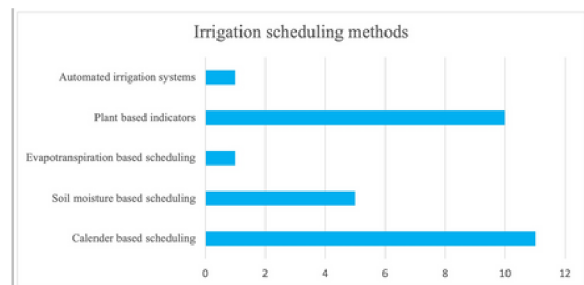
Information derived from these assessments guides extension professionals in focusing their research and extension programs on relevant issues. Needs assessment survey, created by Hardeep Singh, Local Food Systems Advisor in the Central Sierra, aims to address local needs in terms of crop production.

Results of the survey indicated a total of 31 complete responses, with 42% of respondents being low income/beginning farmers, and 29% being women farmers. The respondents comprised an almost equal proportion of conventional and organic farmers, including those practicing organic methods without certification. Survey asked respondents to rate various topics in terms of the need for research and extension. Sustainable food systems/organic agriculture emerged as the top priority, followed by insect pest weed and disease control, technical assistance with grant programs/regulatory compliance, and irrigation management.

In summary, the survey provided valuable insights into the needs and priorities of local farmers, guiding future research and extension efforts to address critical issues in the Central Sierra.



Graph depicts the needs as shared by the respondents in terms of food safety. It was found that harvest and post harvest practices including the Good Agricultural Practices (GAP) were of most interest to the growers.



Graph depicts the various irrigation scheduling methods employed by the respondents. It was observed that automated irrigation systems and evapotranspiration based methods were the least utilized. This highlights the necessity for adopting water-efficient irrigation scheduling methods.



Hardeep Singh
Local Food Systems Advisor



Cindy Chen
Woody Biomass and Forest Products Advisor



LIVESTOCK

Safeguarding sufficient, safe & healthy food

Improved food safety

On November 13th, 32 Beef Producers attended our Beef Quality Assurance Training and Certification. Livestock producers from 14 different California Counties attended this training. Beef Quality Assurance (BQA) is a program that provides systematic information to U.S. beef producers of how good husbandry techniques can be coupled with accepted scientific knowledge to raise cattle under optimum management conditions.

They learned about how Biosecurity protects the cattle, the people, and an operation as a whole. Also, herd health, and how to recognize the difference between products, administering, and storing animal health products.

The training also covered the importance of record keeping, and consequences for not keeping records. Participants also learned about how to recognize an animal's body condition score and nutrition with Flavie Audoin, their local Livestock and Natural Resources Advisor. Grazing management, soil and water quality are also important components of the BQA training, as is worker safety.

The training and certification event was organized by the local Livestock and Natural Resources Advisor. This event was sponsored by the California Beef Council, Bimeda Inc, Boehringer Ingelheim and Zoetis*.

*No endorsement of named products is intended, nor is criticism implied of similar products that are not mentioned.

Promoting economic prosperity in California

Improved animal management, productivity

Some California livestock producers are interested in selling meat from the livestock that they produce from California rangelands to local restaurants, butcher shops and the local communities where they live. However, **access to a USDA Meat Processing Facility is limited and challenging in the Sierra Nevada.** Also, the American Meat Supply Chain has some significant limitations as illustrated by a meat supply shortage that occurred in 2020-2022.

Our 2023 survey regarding interest in a proposed USDA Meat Processing Facility reached 12 California counties, 15% of respondents were from Tuolumne County. 55% of respondents raise multiple species of livestock. 70% are interested in direct marketing their products. Survey results show that there is high interest for a USDA Meat Processing Facility in the Central Sierra, and beyond. Future steps for this project are to decide the type of processing facility, size, location, and ownership. We are working on it right now. Then, we will have public meetings to talk about the project.



Flyer of the training and certification.



Dr. Gaby Maier, UCCE Vet Extension Beef Specialist is covering part of the program. Jackson, 11/13/2023 (Photo Credit: Cesar Jimenez)



Flavie Audoin

Livestock & Natural Resources Advisor



Mackenzie Faith Patton

Integrated Pest Management Advisor



UC CALFRESH HEALTHY LIVING

Safeguarding sufficient, safe & healthy food

During FFY23, CFHL, UCCE educators in Calaveras County provided nutrition lessons to 715 participants over 317 sessions, totaling in 344 hours of instruction time. In Calaveras County, CFHL UCCE made 96% of its direct educational contacts at elementary, middle, and high schools. As a result, 690 students at Toyon Middle and Calaveras High School received nutrition education lessons. These nutrition lessons allow students to create positive experiences around whole foods and increases their ability to provide healthy meals for themselves.

Matched pre/post surveys demonstrate that students who received CFHL, UCCE nutrition lessons in Calaveras County increased their consumption of fruit and vegetables by nearly 1 serving per day by the end of the school year. This is significant as it demonstrates positive changes in eating behaviors in correlation with CFHL, UCCE programming.

Students at Valley Springs and Jenny Lind Elementary also receive physical activity lessons, highlighting the importance of exercise and healthy eating. In total, CFHL UCCE offered 90 sessions of physical activity lessons to 182 total students.

To expand reach to adults and families, the program collaborated with food banks to provide packets of recipes using all items in each month's commodities distribution, including the printed EatFresh.org recipes for each bag that is distributed in the county. Major partners for this project are Calaveras County's San Andreas Food Bank and the Resource Connection, serving 390 families cumulatively.

Several projects in Calaveras County focused on building youth leadership skills, along with healthy life habits. In one project, teens from Calaveras High School learned to teach the 4-H Cooking 101 (Cooking Academy) curriculum to students at Jenny Lind Elementary during "Ag Day" events. Another youth engagement project focused on youth volunteers from Toyon Middle School being trained to teach the Learn! Grow! Eat! Go! Curriculum to younger students during the after-school garden program.

Youth from Toyon Middle School and Calaveras High School are trained via the 4-H Cooking 101 curriculum to prepare and distribute Harvest of the Month tastings to other students. In the 6,400 individual tastings that were evaluated, 54% students had never tried the food item before. After completing the tastings, 92% students were willing to try to food item again and 87% students were willing to ask for the item at home. This data is significant as it demonstrates that a large proportion of students are being exposed to new foods by their peers, and that a majority are interested in continuing healthy eating behaviors at home. Engaging youth in these efforts increases the effectiveness of the nutrition education program by harnessing the influence of students on their peers, as well as providing valuable leadership opportunities to students.



Teens as Teachers from Calaveras High School lead 3rd grade students from Toyon Middle School in a garden lesson and handwashing station at the "Farm Day" event at the Calaveras UC Master Gardener Demonstration Garden. November 2023. Photo credit Bambi Baechler.



2,461
people
reached by
CFHL, UC



Kitty Oppliger

Community Health & Nutrition Advisor

UC CALFRESH HEALTHY LIVING

Increasing Effective Public Leadership Skills

In total, 40 students in Calaveras County took leadership roles in Youth Engagement projects. These youth engagement efforts provide students the opportunity to learn peer leadership, lesson planning, scheduling, classroom management, public speaking, team work, responsibility, and conflict management. Additionally, students practice advocacy for their peers and the development of positive changes in their communities and learning environments. These leadership experiences help prepare youth for success in education and the workforce by giving students the opportunity to develop leadership skills and invest in themselves, their peers, and their educational environments.

CFHL, UCCE collaborates with Calaveras County schools to offer weekly cooking lessons throughout the school year using the 4H Cooking 101 curriculum. 6 periods at Toyon Middle School and 3 periods at Calaveras High School receive weekly cooking lessons, resulting in a total of 213 class session in FFY23. Before addressing any cooking techniques or recipes, the 4H Cooking 101 curriculum focuses on knife, equipment, and food safety. Food safety topics include handwashing, cleaning produce, equipment sanitation, time and temperature control, safely storing leftovers, sanitary cooking practices, and kitchen clean up. Students not only get a chance to learn these lessons, they put them into action. For example, students from Calaveras High School teach basic food safety to Valley Springs Elementary students by guiding younger students through a handwashing station during “Ag Day” events. Additionally, Students at Calaveras High and Toyon Middle School distribute the food they make in class to fellow students, totaling in 6,400 tasting opportunities during FFY23. This work is significant, as learning safe food handling at a young age instills positive, life-long habits in youth as they provide meals for themselves and their families.

CFHL, UCCE implemented several garden reinvigoration projects at schools in Calaveras County during FFY23. Reinvigoration work occurred at Mark Twain and Valley Springs Elementary Schools, focusing on sustainable watering systems, direct seed planting, and installing plant starts. In addition, the program continued its established garden programming at Calaveras High School and Toyon Middle School. These project give students in Calaveras County the opportunity to learn and practice gardening techniques, develop an understanding of food systems, and practice wellness in an outdoor space.



Calaveras County students learn gardening techniques at the annual "Kids Day in the Garden" event at the UC Master Gardener Demonstration Garden. May 2023. Photo credit Mariana Garcia.



Noah Cooke
CalFresh Healthy Living



4-H YOUTH DEVELOPMENT



Eight Central Sierra youth attend the Ignite 4-H summit in Washington, D.C. to learn about pollinator habitats and develop a service project to implement in their communities.



210
youth in
UC 4-H Youth
Development
Program



Developing a Qualified Workforce for California

Calaveras County teens who attended the national 4-H Ignite conference met other 4-Hers from across the country and learned ways to get involved in science and agriculture.

The goal for the next several months is to teach hundreds of local students about pollinators and increase pollinator awareness.

63% of teens who responded to an evaluation survey said because of this project they are more interested in science and agriculture.

JoLynn Miller

4-H & Youth Development



Head • Heart • Hands • Health

UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION Central Sierra Multi-County Partnership **CALAVERAS COUNTY**

ADVISORS

Cindy Chen, Woody Biomass & Forest Products
(209) 533-6989 | cxnchen@ucanr.edu

Susie Kocher, Natural Resources and Forestry
(530) 542-2571 | sdkocher@ucanr.edu

JoLynn Miller, 4-H & Youth Development
(209) 533-5686 | jlmiller@ucanr.edu

Scott Oneto, Farms & Agriculture
(209) 223-6834 | sroneto@ucanr.edu

Kitty Oppliger, Comm. Health & Nutrition
(209) 256-9486 | koppliger@ucanr.edu

Mackenzie Patton Integrated Pest Management
(530) 621-5551 | mfpatton@ucanr.edu

Hardeep Singh, Farms & Agriculture
(559) 579-6065 | hdsingh@ucanr.edu

ADVISORS

Recruiting - Livestock and Natural Resources
Recruiting - Indigenous Disaster Resilience

4-H Youth Development Staff
Lynnette Madsen
(209) 754-6474 | lmadsen@ucanr.edu

UC Master Food Preserver Staff
Sue Mosbacher, Master Food Preserver Coordinator

UC Master Gardener Staff
Debbie Powell, Master Gardener Coordinator

UC CalFresh Healthy Living Staff
Bambi Baechler, Nutrition Educator
(530) 291-1580 | bbaechler@ucanr.edu

Mary Manning, Nutrition Educator
(530) 786-0603 | mhmanning@ucanr.edu

Office Staff
Stacy Arhontes, Administrative Assistant II
(209) 920-9292

CALAVERAS OFFICE

423 E. ST. CHARLES ST.
SAN ANDREAS, CA 95249

OFFICE HOURS

MONDAY - FRIDAY
8:00 AM - 4:30 PM

MAILING ADDRESS

891 MOUNTAIN RANCH RD..
SAN ANDREAS, CA 95249

CONTACT

209-754-6477