

UC CE

Central Sierra

Tuolumne 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 Tuolumne 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

\$212,695

County

\$345,656

Advisor-Generated
Gifts and Grants

\$19,589

Raised by Volunteers to Support
Local Programs



172

volunteers donated
8,683
hours public
service – estimated
value of
\$ 308,767



37

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



7

peer-reviewed/
audience-
requested
publications



2,131

total
educational
interactions
with the
public



10

news media
programs/
mentions



17

new certified
California
Naturalists
stewarding the
environment



UC MASTER GARDENERS

Promoting healthy people and communities

The Tuolumne Master Gardeners provide gardening information for the public free of charge through a variety of different methods. They provide presentations every month (Feb. through Nov.) at the Master Gardener Demonstration Garden located at Cassina Alternative High School. The Statewide Master Gardener Office noted behavior changes on the part of attendees who attended these presentations. According to the survey: 43% are expanding growing different varieties of edible plants, 63% have reduced their food loss, 60% are growing more edible plants, 80% are spending more time gardening or being outdoors.

Master Gardeners provide information via the Farmer's Markets in Tuolumne County which include the Sonora Farmer's Market, Peaceful Valley, and the Jamestown Farmer's Market.

They also have a Online help desk and phone hot line where the public can ask questions. They also write weekly articles which appear in the *Union Democrat* and the on line news source, My Mother Lode.

Master Gardeners of Tuolumne County can be heard on weekly radio shows for the Mother Lode Community Radio Show, 103.5 FM or on line at kaad-lp.org.

The Master Gardeners go weekly to the Mother Lode Regional Juvenile Detention Center to teach gardening education. The juveniles have grown a wide variety of produce which they eat eagerly. Master Gardeners also go weekly to the Interfaith Food Bank to teach gardening and help grow some produce in the newly installed garden beds. A Master Gardener has also been going weekly to the Watch Program for adults with intellectual disabilities.



Debbie Powell
Master Gardener Program Coordinator



190
residents
reached by
UC Master
Gardener
volunteers



Pictured: Tuolumne Master Gardener giving a presentation at the monthly Open Garden Event

Protecting California's Natural Resources

The Save our Polystyrene Project is an opportunity for the public to drop off polystyrene (trademark name is Styrofoam) that would normally be sent to a landfill. It is the goal of the UCCE Master Gardeners of Tuolumne County to give the residents an opportunity to keep this waste product out of the landfill.

Expanded polystyrene does not biodegrade and can contribute to microplastic pollution contaminating air, land, waterways, and food systems.

This event is an ongoing partnership with event host Waste Management in Sonora and Dart Manufacturing in Lodi, who picks up this product and repurposes it in their manufacturing plant.

Ultimately, the Master Gardeners would like all polystyrene in Tuolumne County to be recycled.

At this point, they are proud to be instrumental in diverting for over 15 years, over 45 - 40 foot containers of polystyrene from the landfill.



FORESTRY & NATURAL RESOURCES

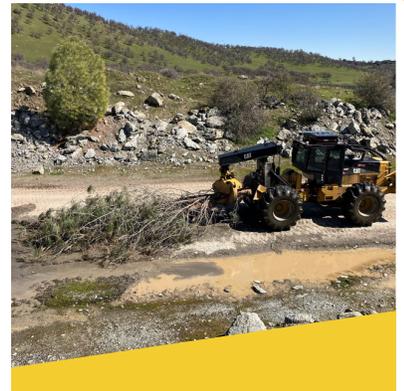
Improved industry representation and stakeholder collaboration on regional projects

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 forestland 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.

The needs assessment is expected to be updated as new data is gathered.



Kodama Systems, Inc. doing a demo of its remote skidder system



Field trip to a bioenergy facility, co-organized with the UCCE Forest Stewardship Program.



Attendees at one of the "Rim Fire 10 years later tour" spots on 08/09/2023, in Tuolumne County (credit: Flavie Audoin)

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.



Cindy Chen

Woody Biomass & Forest Products Advisor



Susie Kocher

Natural Resources and Forestry Advisor



UC CALFRESH HEALTHY LIVING

Promoting healthy people & communities

Improved Health for All

In Tuolumne County, CalFresh Healthy Living (CFHL) UCCE outreach to parents during Infant and Child Enrichment Services (ICES) "Children's Fair" community engagement event provided resources regarding healthy food and beverage choices. CFHL, UCCE educators reached 81 individuals with an infused-water tasting station, recipe cards, and activity sheets. Of the 81 individuals who sampled the infused-water, 86% reported that they either "Loved it" or "Liked it." This is significant as it demonstrates positive experiences and attitudes towards healthy beverage choices. Community members who attended this event not only sampled the infused-water, they were given resources to establish healthy habits and to make the recipe at home.

Additionally, CFHL, UCCE staff collaborated with community partners to provide nutrition education at the Peaceful Valley Farmers' Market "Kids' Day" event in September 2023. CFHL, UCCE educators reached 150 individuals at this event with seasonal produce recipes, educational materials regarding the fall harvest, nutrition information about seasonal produce, and activity sheets for children. This is significant as it demonstrates health-oriented changes to retail spaces in Tuolumne County.

Community members are provided nutrition education while they are making purchasing decision, greatly increasing the efficacy of nutrition education efforts.

CFHL, UCCE also provided nutrition education to schools in Tuolumne County. Harvest of the Month tastings were conducted at Columbia Elementary and Twain Harte School, wherein students had the opportunity to sample seasonal produce items in the cafeteria during lunch. These efforts resulted in 240 students at Twain Harte School and 310 students at Columbia Elementary taking part in Harvest of the Month.



CFHL, UCCE booth at the Infant and Child Enrichment Services "Children's Fair" event, offering nutrition information and an infused water tasting station. September 2023. Photo credit Lisa Uribe, Farrah Olson.



Harvest of the Month tasting for November 2023. Photo credit Lisa Uribe.



Noah Cooke
CalFresh Healthy Living Supervisor



Kitty Opplinger
Community Health & Nutrition Advisor



LIVESTOCK

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.



Safeguarding sufficient, safe, & healthy food

Improved food safety



Beef Quality Assurance Training is important for food safety and security in Tuolumne County.

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.



Flavie Audoin
Livestock & Natural Resources Advisor



Scott Oneto
Farm Advisor



AGRICULTURE

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.

Protecting California's natural resources

Catastrophic wildfire has become a new and destructive reality for California. 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 economic viability.

On August 9, 2023, 70 people gathered in Tuolumne County to talk about and look at the impacts that the Rim Fire made on the Stanislaus National Forest. There were representatives of the Forest Service, CAL-FIRE, Sierra Pacific Industries, Stanislaus Forest Range Permittees, Calaveras and Tuolumne Board of Supervisors, Sierra Nevada Conservancy, CA Water Resource Control Board, CA Department of Food and Agriculture, Congressmen's office, and the University of California.

This event brought together a diverse group of scientists, ranchers, public and private land managers, federal and state legislators, and regulatory agency representatives to discuss how we can work collectively toward fire resilient landscapes and create impactful change on California's public rangelands.



Post Rim Fire Restoration by Sierra Pacific Industries at Penny Pines Plantation on 08/09/2023 (credit: Flavie Audoin)



Hardeep Singh
Local Food Systems Advisor



Mackenzie Faith Patton
Integrated Pest Management Advisor



4-H YOUTH DEVELOPMENT

Developing a Qualified Workforce for California

Improved college readiness and access.

Tuolumne County Ambassador and Leadership Teams participated in Mad About Science, a FREE Summer STEM Program hosted by TCSOS and held on the Columbia College campus.

The program provides an exciting and hands-on experience for Tuolumne County students entering 4th - 9th grade, introducing them to Science, Technology, Engineering, and Math. The week-long event includes engaging activities such as building bridges, robots, launching rockets, creating slime, and making lava lamps.

Mad About Science aims to foster a love for STEM subjects and inspire student's curiosity in the world around them. Our 4-H Team instructed facilitated Ozobot workshops for four 5th grade classes. Participants learned teamwork, coding and all about robots!



Ozobots Session at Mad About Science Summer Camp. July 2023, Columbia College



655
youth in
UC 4-H Youth
Development
Program



4-H youth participates in educational activity at the Friendship Conference.

In collaboration with the Superintendent of Schools, the Tuolumne County 4-H Ambassador Team participated in the annual Children's Friendship Conference for every 3rd-grade student in Tuolumne County, accompanied by their classroom teacher, as a county-wide school field trip.

At the Children's Friendship Conference, students learned through group activities, songs, and interactive games how to describe what makes a good friend and how students can be good friends to others, including learning about how to create and foster healthy friendships.

The goal of the Children's Friendship Conference is to help young children navigate new and existing friendships and become a more confident and empathetic friend.



JoLynn Miller
4-H Youth Development Advisor



UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

4-H Youth Development Program



University of California
Cooperative Extension
Central Sierra
Multi-County Partnership
Tuolumne 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
(209) 533-5686

SCOTT ONETO, FARMS & AGRICULTURE
(209) 223-6834 | SRONETO@UCANR.EDU

KITTY OPLIGER, 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 | HDSING@UCANR.EDU

RECRUITING - LIVESTOCK AND NATURAL RESOURCES

RECRUITING - INDIGENOUS DISASTER RESILIENCE

UC MASTER GARDENER STAFF
DEBBIE POWELL, MASTER GARDENER PROGRAM COORDINATOR
209-533-5696 | DLPowell@UCANR.EDU

UC CALFRESH HEALTHY LIVING STAFF
LISA URIBE, NUTRITION EDUCATOR
(209) 533-6991 | LURIBE@UCANR.EDU

FARRAH OLSON, NUTRITION EDUCATOR
FOLSON@UCANR.EDU | (209) 533-6991

UC 4-H YOUTH DEVELOPMENT STAFF
ERIKA ARMSTRONG, 4-H PROGRAM REPRESENTATIVE
209-533-6990 | ELARMSTRONG@UCANR.EDU

TUOLUMNE OFFICE STAFF
GILLIAN GARRETT, ADMINISTRATIVE ASSISTANT II
GIGARRETT@UCANR.EDU | 209-533-6995



TUOLUMNE COUNTY OFFICE

52 N. WASHINGTON ST.
SONORA, CA 95370

OFFICE HOURS

MONDAY - FRIDAY
9:00 AM - 5:00 PM

MAILING ADDRESS

2 SOUTH GREEN ST.
SONORA, CA 95370

CONTACT

209-533-5695