

COUNTY OF MADERA
 BUDGET UNIT DETAIL
 BUDGET FOR THE FISCAL YEAR 2024-25

Department: COOP. EXTENSION
 SERVICE (09200)
 Function: Other
 Activity: Ag. Education
 Fund: General

	ACTUAL <u>2022-23</u>	BOARD APPROVED <u>2023-24</u>	DEPARTMENT REQUEST <u>2024-25</u>	CAO RECOMMENDED <u>2024-25</u>
<u>ESTIMATED REVENUES:</u>				
<u>EXPENDITURES:</u>				
SERVICES & SUPPLIES				
720300 Communications	635	1,500	1,100	1,100
721400 Professional & Specialized Services	97,949	109,684	110,934	110,934
721601 Rents & Leases - Co Vehicle	1,054	0	0	0
TOTAL SERVICES & SUPPLIES	99,639	111,184	112,034	112,034
<u>TOTAL EXPENDITURES</u>	<u>99,639</u>	<u>111,184</u>	<u>112,034</u>	<u>112,034</u>
<u>NET COUNTY COST (EXP - REV)</u>	<u>99,639</u>	<u>111,184</u>	<u>112,034</u>	<u>112,034</u>

UNIVERSITY OF CA COOPERATIVE EXTENSION

COMMENTS

The University of California Cooperative Extension (UCCE) is the county-based research and educational program of the University of California, Division of Agriculture and Natural Resources and is a cooperating partnership between the County of Madera, the University of California, and the United States Department of Agriculture.

The Mission of UCCE:

To serve California through the creation, development, extension, and application of knowledge in agricultural, natural, and human resources.

UCCE serves the local citizens of Madera through:

- Agriculture research and education to develop and improve agricultural practices.
 - Youth development programs to develop life skills, leadership, and community service through (hands-on) education.
 - Nutrition education programs that help individuals and families to eat better, stretch their food dollars, handle food safely and improve health.
 - Extending information on sustainable landscape and gardening practices to the community.
- Our mission is accomplished through the education and research programs conducted by UCCE advisors and program leaders. The advisors and program leaders work with agricultural clientele, county residents, youth, families, and community agencies to provide science-based knowledge and solutions to residents.

A major strength of the UCCE partnership is the ability to leverage internal and external resources to serve the residents of Madera County. For each dollar of County support, more than three additional dollars are leveraged from state, federal and private sources. Although the revenue from increased agricultural productivity resulting from the research and extension programs is difficult to measure in any given year, it is estimated that for \$1.00 invested in agricultural research and extension, there is a return of \$20 to the community.

Programs serving agriculture provide research-based answers to production challenges, assisting local growers and allied industry in the sustainable, economically viable, and safe production of their crops. Advisors serving Madera County cover 4-H Youth Development, Dairy, Horticulture, Livestock and Natural Resources, Orchard Crops, and Viticulture. We have a strong Master Gardener program serving the public of Madera County. The CalFresh Healthy Living, UC program provides support and resources to teachers in low-income Madera County Schools.

Pursuant to a 2013 agreement with the University of California (UC), Madera County finances clerical staff, office supplies, facilities, and operating expenses for Cooperative Extension (CE). The Multi-County Partnership agreement also includes Fresno County and resources are provided to allow for delivery of the Cooperative Extension services there. UC is responsible for funding salaries and benefits for the academic staff and procuring grant funding for programmatic efforts. The total budget for Fiscal Year 22/23 was \$10,494,818; 9% of which was provided by the Counties and 91% by the University.

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4-H Youth Development

In 4-H, youth discover and develop their potential to grow into competent, contributing, and caring citizens. Learn-by-doing activities, youth-adult partnerships, and research-based educational programs help members develop and enhance their leadership skills and build a wide range of life skills. Along with traditional community-based clubs and residential overnight camp programming, 4-H also works with local schools, parks and recreation departments, and the Madera County Fair on collaborative opportunities. Additionally, our 4-H Advisor and Program Representative continue to offer programs targeted to rural, low income, and minority populations to introduce them to the benefits of 4-H.

Dairy

The primary objective of the Dairy Extension Program is to offer a comprehensive range of applied research and extension education initiatives addressing various industry issues within the dairy production system. By focusing on environmental stewardship, sustainable practices, quality assurance, animal welfare, animal health, food safety, new technologies, and labor and production efficiency, the program aims to enhance the competitiveness of the California dairy industry. The overarching goal is to empower dairy producers by providing them with the knowledge and tools needed to align their operations with current and future environmental considerations, thereby contributing to the long-term success of their endeavors.

ENVIRONMENTAL HORTICULTURE AND MASTER GARDENER VOLUNTEERS

The mission of the Master Gardener program is to provide research-based information for gardening practices and technologies of home horticulture, integrated pest management (IPM), and environmental resource conservation. In 2022 we trained 4 new Master Gardener volunteers and in 2023 Madera Master Gardener have 7 new volunteers joining our program. Madera MG volunteers help with presentations at the Home & Garden show, zoom and in person presentation at Madera Library, local nurseries and at the Three Sisters Garden on the Madera College campus. On Madera campus we support garden classes for Health Services, hands on training in the garden with Madera professors and their students. This will be the third year that we aid the Madera School district in collaboration with the Cal Fresh program. The collaborative partnership gained recognition of UCANR State Cal Fresh Program and was featured in one of their Town Halls.

Madera County grounds crew has received support from the MG program in the Maintenance at the Oakhurst Library and North Fork library and Front planter beds at the UCANR office. It is all drought tolerance plants and California natives. Explore Valley Gardens was a collaborative partnership with gardens in the central valley. The Master Gardener program kicked off this new venture with Celebration National Public Garden week in May of 2022. The marketing firm is working with us again for 2023.

LIVESTOCK AND NATURAL RESOURCES

Livestock and natural resources research and extension efforts assist local producers in maintaining livestock production, a key economic sector in Madera County, while conserving and enhancing natural resources and ecosystem services. The advisor uses a variety of strategies to reach clientele in Madera County including social media and quarterly newsletters on livestock and natural resource topics to over 120 recipients, and coordinating, hosting, and presenting at annual livestock or range management symposia. Webinars and online workshops cover livestock disaster preparedness, weed management, cutting-edge beef cattle health advancements, and the basics of small-acreage livestock production including animal husbandry and niche marketing. A new small-acreage website is in the final stages of development, and can be viewed in its current state here: <https://ucanr.edu/sites/smacreage/>

A rancher self-assessment was developed to help ranchers identify areas where they excel and areas where there is room to adopt best practices for ranch sustainability. The self-assessment considers forage, soils, wildlife, drought planning, and generational succession, to keep working landscapes economically, socially, and ecologically viable. The assessment and a detailed library of scientific resources to assist ranchers are now live at the UC Berkeley website: <https://crsa.cnr.berkeley.edu>. A free webinar to encourage adoption of the assessments will be held on February 29, 2024. Registration is available here: <https://forms.gle/giaXcJdNAFDaEFXQ9>

In Fall 2021, a new long-term project began to monitor blue oaks in the Southern San Joaquin Valley and Central Coast. Blue oaks are a key species on rangelands, providing shade, nutrient hotspots, habitat and food for multiple wildlife species, and cultural and aesthetic benefits for human communities. However, blue oak populations are beginning to decline. This project identifies, implements, and disseminates indicators of oak die-off and methods of sustaining healthy populations. In June 2023, a Blue Oak Field Day was hosted in collaboration with the Sierra Foothill Conservancy, a local rangeland trust. The 40 participants included members of state and federal agencies, other land trusts and reserves, local ranchers, and conservation and oak enthusiasts. All participants indicated they gained knowledge in oak monitoring methods and several participants plan to utilize at least one new monitoring method this year to observe their own oaks. This monitoring work is planned to continue for at least 8 more years, and outreach will continue to engage local and regional landowners in monitoring their own oaks. With widespread monitoring, we will be better able to identify oak populations at risk of decline, and therefore able to intervene with management to sustain these important and beloved trees.

Long-term forage production research is used by USDA Farm Service Agency (FSA) to help determine drought impacts to local livestock operations. These drought assessments help FSA to determine payments to offset severe drought impacts livestock producers; three sites are monitored in Madera County. A newer forage production study with one site in Madera County continues to examine the potential for remote sensing to improve data on statewide forage production. Remote sensing data could improve early detection of drought impacts at a fine scale, expediting compensation to ranchers in need. Preliminary data indicates that remote

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sensing was fairly accurate to on-the-ground measurements. Final conclusions from the remote sensing project are expected to be published late in 2024.

NUTRITION, FAMILY, AND CONSUMER SCIENCES

The CalFresh Healthy Living, University of California Cooperative Extension (CFHL, UCCE) serves Fresno and Madera counties using its research-based and science-informed education about food and nutrition, physical activity, policy, systems and environmental (PSE) changes, food safety, and food resource management education at no-cost, to improve the health and lives of CalFresh eligible individuals and families. In Madera County, CFHL, UCCE actively collaborates with Local Implementing Agency partner Madera County Department of Public Health Department to synergistically create impact in the health and nutrition of our CalFresh Healthy Living participants. The Madera CFHL, UCCE program serves over 26 sites and partnerships which include but not limited to the Madera Unified School District, Community Action Partnership Madera County, Dairy Council of California, the Madera County Department of Social Services Madera Career Club, Madera Housing Authority, and the City of Madera Parks and Community Services Department.

Our CFHL, UCCE Madera nutrition educators provide direct and indirect nutrition and physical activity education classes, extender (teacher) trainings, food resource management education, and Policy, Systems and Environmental (PSE) change supports. For Federal Fiscal Year 2022-2023, CFHL, UCCE Madera reached a total of 277 individual adults and 5,175 youth with direct education and 1,769 youth, adults, and families at 7 sites through PSE (adoption and implementation) in Madera County. Youth and adult program participants reported improved knowledge and behaviors after participating in the CFHL, UCCE program- two crucial factors linked to lower obesity and chronic disease risks. CFHL, UCCE Madera evaluation findings show that 100% of teachers reported they agree or strongly agree that “students can identify healthy food choices” and “more students now are willing to try new foods at school”, whereas 79% of adult participants reported they will use the “Nutrition Facts” on the food label to choose foods the next time they shop.

ORCHARD CROPS

The Orchard Crops program encompasses research and extension activities to help Madera orchard growers, PCAs, and crop consultants improve their productivity and sustainability. Dr. Gordon’s extension program includes a podcast (Growing the Valley), a website (www.sjvtandv.com), annual meetings, as well as working with orchard decision makers individually through emails, phone calls, and more than 100 farm calls. In the spring of 2023, she held two commodity focused meetings, almond and pistachio and a field day exhibiting a fertilization trial. Her research program includes an almond variety trial, where she manages one of three sites that are evaluating 30 different almond varieties. Several of these varieties are experimental and show great promise with high yields, low disease susceptibility, and are self-pollinating, which will simplify almond orchard management. Other ongoing projects are examining the effect of boron and salinity on pistachio performance, establishing nitrogen fertilization requirements for non-bearing pistachio trees, and investigating pistachio kernel quality.

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VITICULTURE

The Viticulture Advisor, Karl Lund, continues his work on rootstocks within the San Joaquin Valley. His work with new nematode-resistant rootstocks has identified nutrient uptake, canopy growth, water management, and yield differences between these rootstocks that will help growers better understand how to use these new rootstocks. Results from these efforts are now being written up for publication.

Karl, along with his colleagues in the Fresno office, established another rootstock trial at the University of California West Side Research and Extension Center (WSREC) near Five Points, CA in 2021. This trial will look at the interaction between rootstock, lower-quality irrigation water, and drought stress. This is an important trial to identify which rootstocks can handle less and lower quality irrigation water, while still returning profitable yields for local growers. Initial data collection began during the 2023 growing season. While more data is needed before any conclusions can be reached, differences between the rootstocks are already apparent.

In addition, Karl continues to work on vineyard mechanization. With the cost of labor rising many vineyard tasks have been mechanized. This gives San Joaquin Valley growers an interesting opportunity as some of the mechanized tasks were previously only used in higher-end wine production. Multiple mechanical management tools are now being trialed to see if they improve wine quality and pest management outcomes locally. Results from one of these projects showing the advantages of early-season leaf removal were published in 2023.

SERVICES AND SUPPLIES

Services and supplies are recommended based on the Multi-County Partnership Agreement.

- 720300** **Communications** (\$1,100) is recommended unchanged for telephone and fax costs as required under the Multi-County Partnership Agreement.
- 721400** **Professional and Specialized** (\$110,934) is recommended and reflects a \$1,250 increase in the contribution to the University of California Cooperative Extension through a Multi-County Partnership Agreement.