

Improving the lives of all Californians



UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources



The University of California in your Community

UC Agriculture and Natural Resources brings the power of UC research and education to all 58 California counties. Through research and extension in agriculture, natural resources, economic growth, nutrition, and youth development, we work to improve the life of each and every Californian.

We do this through our statewide network of county UC Cooperative Extension (UCCE) offices, UC campuses, research and extension centers, statewide programs and more than 19,000 volunteers. We also partner with hundreds of government, community and industry organizations to deliver our mission.

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**UC ANR advisors, specialists, faculty and educators
bring practical, science-based solutions to your
neighborhood.**



150

**Advisors conduct
research in local
communities**



260

**Community Educators
deliver programs**



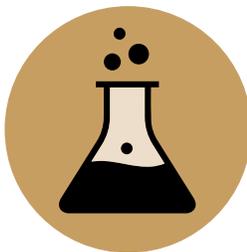
13

**Statewide programs
and institutes**



120

**Campus/County-
based Specialists**



9

**Research and extension
centers with 375
projects conducted
annually on 13,000
acres**



19,281

**Volunteers support
us in carrying out our
mission**



Prosperity

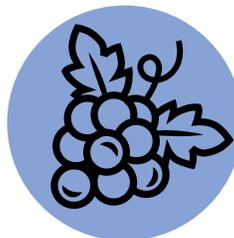
From creating new business opportunities to improving agricultural yields, we work to benefit the California economy. Examples include:

California almond growers increased food safety and nearly doubled yields by adopting practices based in UCCE and UC Davis research in irrigation, nutrient delivery, tree spacing and canopy management.

We work with California's grape industry to meet sustainable production goals and improve climate adaptability through research and extension in plant material selection, pest and disease management, irrigation and natural resource stewardship. Our scientists actively respond to halt invasive species and played a pivotal role in the eradication of the European grapevine moth from our state.

We support the economic development of California's working landscapes, valued at over \$300 billion in annual economic activity. Our research and extension centers are significant drivers of new business opportunities, addressing wildfire mitigation in the \$20 billion forestry industry, increasing opportunities for renewable energy development, bridging the rural broadband divide, and helping the tourism industry create quality jobs.

**Almond industry
valued at \$6.09
billion annually**



**Wine industry
valued at \$43.6
billion annually**

**Working landscapes
valued at over \$300
billion annually**



"This is why we need Cooperative Extension; they came out to assess the damage to our silage field and quickly determined the cause of the problem. They provided assistance and support to reduce the impact of our forage losses."

*Jennifer Beretta,
Beretta Family Organic Dairy*

"We don't really have an R&D arm, so we rely on UCCE to provide viticultural knowledge and methods to help us achieve our production goals. We really enjoy the collaboration — through them we can attain the best quality grapes in our vineyards."

*Nick Davis,
The Wine Group*



Food

We help protect the food supply with innovations in animal care and breeding, plant varieties, irrigation and nutrient delivery, food safety, and pest and disease management practices. Examples include:

- Our experts share research-based information in multiple languages to promote food safety, from lessons for 4-H youth to practical consumer brochures on fighting foodborne bacteria.
- Our research on Asian citrus psyllid (ACP) and the deadly huanglongbing disease threatening citrus trees led to UCCE teams releasing more than 7,500 parasitic wasps to attack ACP and creating an interactive detection map for growers and residents.
- UCCE diagnosed herbicide resistance in rice fields in 2019. By adopting UC integrated pest management recommendations, growers solved a serious weed problem and cut costs by at least 25%.
- We publish a wide variety of educational content, most of it free, from our research and information centers and the Statewide Integrated Pest Management Program, as well as *California Agriculture* journal and numerous other publications.



“The sustainable methods of farming that I’m currently practicing were a direct result of working with UCCE. This system not only saves me money, but has a tremendous benefit to the environment.”

*Dino Giacomazzi,
California almond farmer*

“California rice industry successes can be traced to the efforts of farmers with vision who realized the need for long-term collaboration with the research community and especially UCCE.”

*Charley Mathews Jr.,
Fifth-generation California
rice farmer*



Natural Resources

We help protect the state's precious natural resources for the benefit of every Californian. We translate research into actionable management strategies to protect the environment, from the mountains to the coast.

The California Institute for Water Resources integrates research, extension, and education programs to develop solutions to water resource challenges including nitrogen management, access to safe drinking water, water conservation and more.

The UC California Naturalist Program introduces Californians to the wonders of our state's ecosystems and engages the public in study and stewardship of natural communities. The UC Climate Stewards certification course prepares residents to help strengthen community and ecosystem resilience to climate impacts including extreme weather, wildfires, and other environmental changes.

Our county-based advisors and campus-based specialists and faculty support wildfire prevention, preparedness and recovery across the state through research, prescribed burn associations, supporting grazing to reduce fuels, education in home hardening and disaster assistance.

We help growers save water by investigating crops that can use water efficiently, changing irrigation technologies, managing irrigation events and more. Our work in drip irrigation helped California growers save hundreds of millions of dollars and increase yields.

We partner with public, governmental, and private groups to share knowledge and develop agricultural management practices to improve air quality. From researching alternatives to strawberry fumigants to examining the effects of agricultural fertilizers to inform policy, our work leads to healthier air and healthier communities.



"UC's California Institute for Water Resources is vital to integrating California's research, extension, and education programs to help mitigate current water-related issues and develop practical long-term solutions."

*Karen Ross,
Secretary of California
Department of Food and
Agriculture*

"Local UCCE advisors and specialists in the San Francisco Bay Area have been critical partners to the development and expansion of practical, sustainable conservation methods that can be implemented across entire industries."

*Ashley Boren,
Executive Director,
Sustainable Conservation*

"My California Naturalist course class restored hope for my future and gave me the confidence boost to pursue a field I have had a passion in since I was a kid."

Meghan S.



We promote healthy people and communities across California, whether we're providing nutrition education, sharing UC research, offering training or carrying out our numerous programs.

UCCE nutrition educators administer the federally funded Expanded Food and Nutrition Education Program to assist limited-resource families in choosing nutritious diets and healthy living. UCCE is also the implementation arm of the CalFresh Healthy Living, UC program, teaching people eligible for the Supplemental Nutrition Assistance Program about nutrition, how to make food dollars stretch further, and how to be physically active at any age.

The Nutrition Policy Institute conducts and translates research to improve nutrition and policy. Among many examples, their work has shown the benefits of providing healthier foods to the nearly one million women and children who receive Special Supplemental Nutrition Program for Women, Infants and Children benefits in California as well as providing evidence to pass California's Healthy Beverages in Childcare Act.

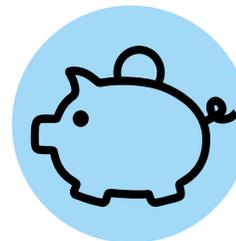
More than 6,000 UC Master Gardener volunteers teach communities and

individuals how to garden sustainably and grow their own food. UC Master Food Preservers provide research-based information about home food safety and preservation.



>6,000
UC Master Gardener
volunteers are
teaching Californians
how to grow their
own food.

\$2.35 million
estimated annual
food cost savings
for EFNEP families
(2017-2020).



“Before the class, I bought food without paying attention to the nutrition labels, but now I pay attention to all of them. I learned how to cook and serve my children more vegetables, and I pack them bags full of fruit. We also go out walking and do more activities together, and we are drinking more water.”

*Myrella,
 Expanded Food and
 Nutrition Education Program
 graduate*

“NPI has been indispensable to our evaluations of the WIC program. They bring a rigor and credibility that helps us make changes to better serve low-income families with young children in California and nationally.”

*Shannon Whaley,
 PHFE-WIC, research partner*



Workforce

Our network links campuses and communities to train workers in urban, agricultural and natural settings. Our youth and community development programs equip the next generation for college, successful careers, and active community participation.

The 4-H Youth Development Program, delivered through county UCCE offices, promotes hands-on, experiential learning for youth ages 5-19 to make a positive difference in their communities. Youth are inspired through 4-H's proven learning model, project-based learning activities, positive youth development experiences and partnerships with adults.

We support the agricultural economy by training beginning farmers and ranchers through a variety of programs. Participants report an increase in their knowledge of workshop and field day topics and plans to change farming or business practices based on what they learned.

The UC Statewide Integrated Pest Management Program helps residents, growers, land managers, community leaders, and professional pest managers prevent and solve pest problems and mitigate unintended impacts on people and the environment. Their research-

based training, offered in English and Spanish, reflects the newest advances in pest management, with selected courses approved for continuing education and structural units by state agencies.

The Informatics and GIS Statewide Program runs a summer DroneCamp that teaches land stewards and researchers how to use drones to make maps and monitor agricultural and working landscapes.



>100,000
4-H youth members
participate in over
11,000 leadership
and personal
development
projects in a year

"I recognize how the practical learning I gained as a 4-H'er prepared me for my career—developing farmers markets, supporting farmers, influencing policy, and sparking interest in agriculture—fostering an appreciation for the work it takes to put food on tables and plants in the landscape."

*Casey Anderson,
Executive Director, Orange
County Farm Bureau*

"The workshop you provided was a great way for us to get direction on what agritourism can do for our county."

*UC Sustainable Agriculture
Research & Education
Program workshop
participant*



Environment

We assist communities, farmers, and ranchers in implementing climate-smart practices, reducing greenhouse gas emissions in forested and working landscapes, and expanding awareness of climate adaptation strategies.

UC ANR is developing one of the most promising groundwater recharge approaches—replenishing aquifers by spreading wintertime river flood flows onto farm lands and other open spaces.

To help farmers apply for grants to improve soil quality and enhance irrigation systems, we partnered with the California Department of Food and Agriculture to put climate-smart educators in 10 California communities.

Our California Project Learning Tree program provides teachers with award-winning, K-8 environmental curriculum and workshops.

Our scientists worked with firefighters and land-use planners to map future fire probability under climate change scenarios and develop guidance for urban design and community development that protects public safety.

The Sustainable Agriculture Research and Education Program supports farmers and ranchers in developing more sustainable farming and marketing practices, and assists communities in building strong, healthy regional food systems. Examples include providing technical support for farm-to-school programs and leading programs to support small-scale and immigrant farmers in growing their businesses.



“Partnering with UCCE academics, staff and volunteers on research and education endeavors has resulted in increased water conservation, soil protection, heightened food security, and an enhanced appreciation of limited natural resources and stewardship.”

*Mandy Parkes,
District Manager, Inland
Empire Resource Conservation
District, Redlands, CA*

“UCCE advisors have been critical partners in the development and expansion of practical solutions to challenging problems. For example, they have facilitated partnerships and trainings that enable us to use prescribed fire to manage invasive species, reduce fuels and make our landscape more resilient.”

*Dina Moore,
livestock producer*



Community

We strive to serve every resident in our state and to help to build an equitable, inclusive society. We live and work in all California counties, building trust and credibility to solve local problems together.

In Fresno County, farm advisors partner with the largely immigrant, small-scale Southeast Asian farming community to develop sustainable, profitable agricultural products. Decades of outreach have helped hundreds of farmers, who together produce more than \$17 million in Asian specialty vegetables annually.

Focused on education and community outreach, the UC Master Gardener Program has inspired hundreds of thousands of people to successfully grow fruits and vegetables in home, school or community gardens.

Across the state, counties have built partnerships to teach horticulture skills to youth and adults in jails, detention centers and treatment facilities. At the County of San Diego Girls Rehabilitation Facility, for instance, UC Master Gardener volunteers teach gardening skills and help the girls explore opportunities for a career in horticulture after leaving the facility.

UC ANR is recognized as a nationwide leader in researching and addressing inclusion and diversity in youth-serving programs. One example is the California 4-H Juntos program, which helps Latino youths and their families bridge the gap between high school and higher education through family engagement, Juntos 4-H clubs, one-on-one coaching and a summer academy at UC Merced.



19,281
UC ANR volunteers contribute nearly 2 million hours annually, the equivalent of over \$62.6 million in donated public service

“I like coming to Juntos because I learned about getting a career. I didn’t know there were so many ways to reach higher education and it motivates me to know I can do it.”

*Brenda,
California 4-H Juntos
program participant,
Sonoma County*

“Thank you for all your wisdom and expertise. Your UC Master Gardener Program is responsible for my thriving garden and good mental health and happiness for my family.”

*Chandrakala G.,
UC Master Gardener
Program client*

“This is truly an effort that brings health to the heart of our communities.”

*Antonia T.,
UC Master Gardener
Program client and
participant*

Our mission is a partnership with every Californian.



You are
here.

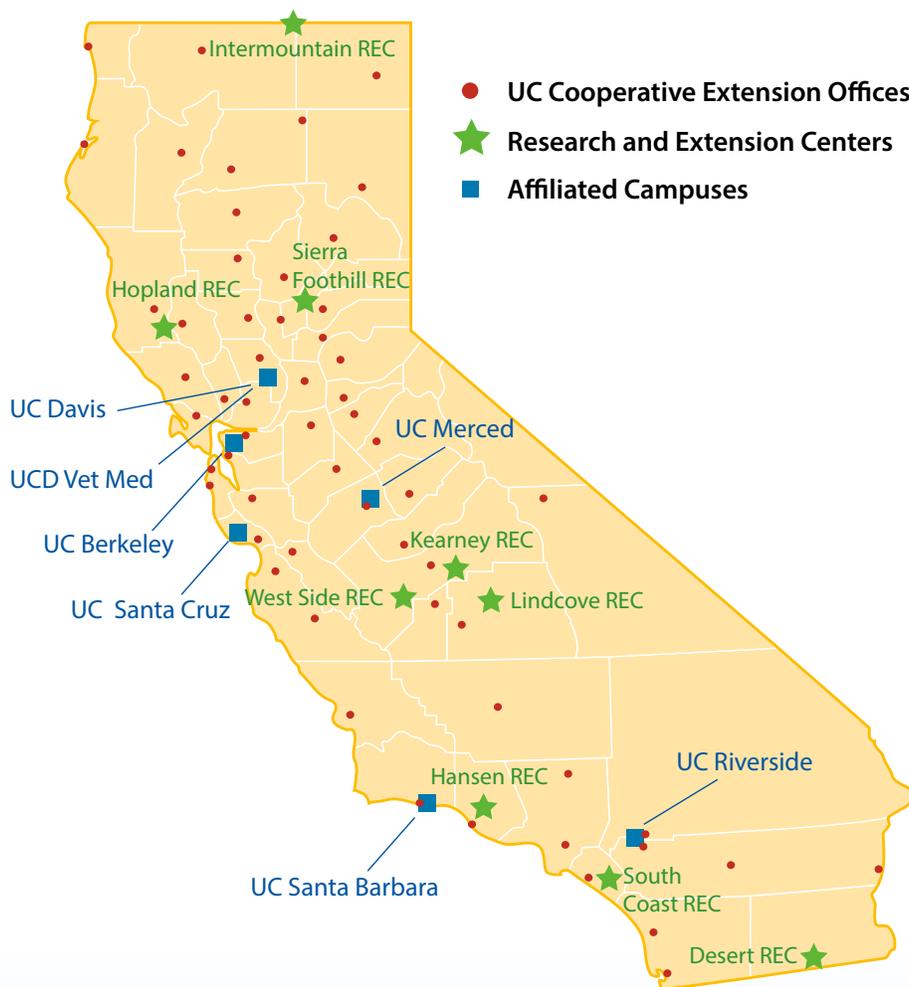
So are
we.

Won't you join us?

- Donate
- Become an advocate
- Join our team
- Partner with us

Visit ucanr.edu
to learn more!

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For more information visit: <https://ucanr.edu/About/Locations/>