Working for the Benefit of All Californians

2018 UC ANR Annual Report

UNIVERSITY OF CALIFORNIA
Agriculture and Natural Resources

Delivering the UC ANR Mission

In 2018, we brought together UC ANR academics and staff from throughout California for our statewide conference, the theme was "Innovation in Action." The conference featured opportunities to share work across disciplines, discover what's new in Cooperative Extension and Agricultural Experiment Station research, engage with leaders of the University, interact with leaders of peer organizations across the state, and cultivate new partnerships and ideas — in essence, to design the next chapter of delivering the UC ANR mission to California.

UC ANR is a living, breathing testament to the power of innovation. Whether we're partnering with the California Department of Food and Agriculture to improve water quality, providing workshops on prescribed fire as a management tool, or helping ranchers estimate losses from wildfires, we help California and Californians overcome challenges. Our advisors and specialists are in every county and work with the entire UC system, as well as a wide array of external partners, to solve local and statewide problems with science-based solutions -- such as the ones you'll read about in this annual report.

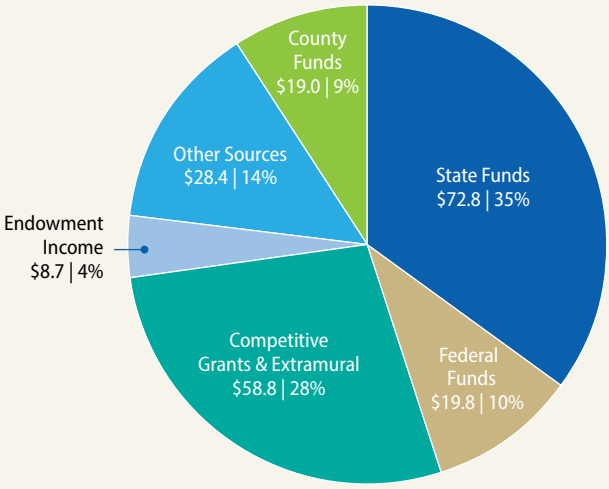
We delivered on our mission in 2018, despite ongoing cuts to our budget. Our priority was to keep UC Cooperative Extension (UCCE) advisors in the field and minimize harm to program delivery. We were fortunate that recently implemented administrative efficiencies provided some savings that we could use for our programs. In addition, we significantly increased the grant awards we received to help make up for the shortfall. At UC ANR, we know we must develop new ways to fund our mission, deliver our programs, and leverage partnerships. We are actively doing just that, while adapting to change along the way.

Get to know us a little better and suggest ways we could partner with you, too. The challenges we face today are often so complex that it takes a multidisciplinary effort to solve them. We look forward to seeing you and collaborating with you throughout this year and the years to come!

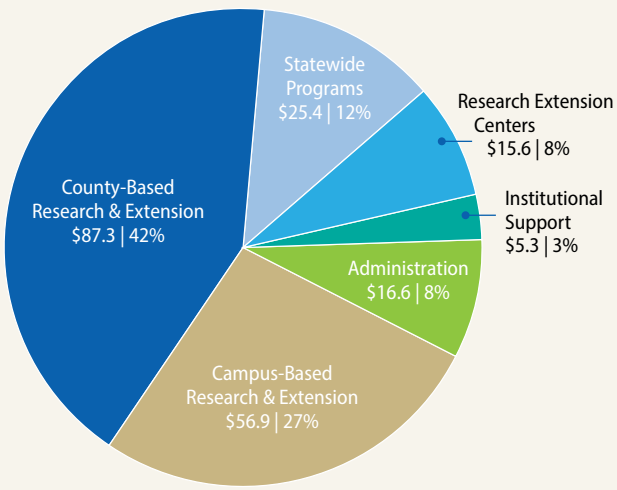
Glenda Humiston, Vice President,
University of California Agriculture and Natural Resources

UC ANR Division Budget FY 2017- 2018

Total Fund Sources = $207.1 M



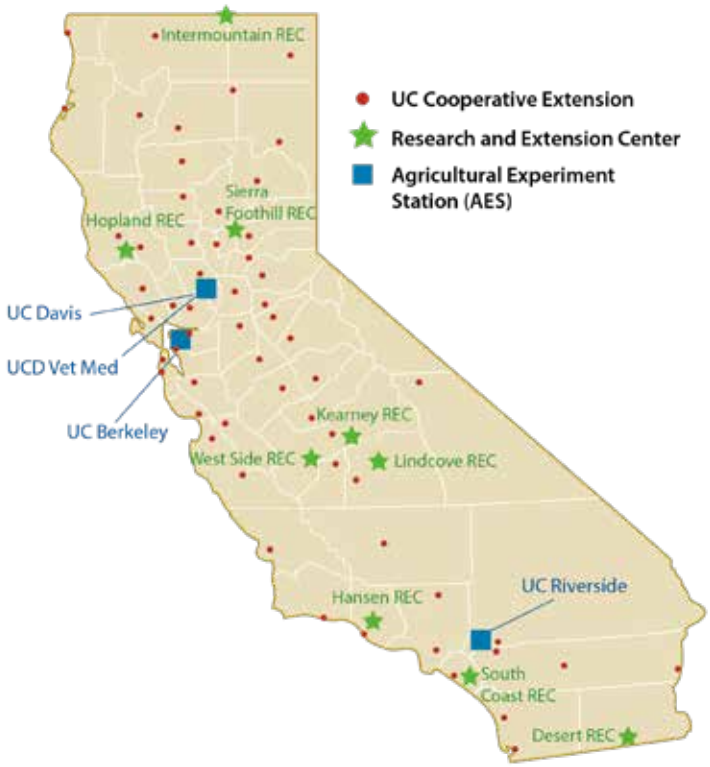
Total Fund Uses = $207.1 M



True to the mission of the land grant universities, UC Agriculture and Natural Resources connects the power of UC research in agriculture, natural resources, nutrition, and youth development with local communities to improve the lives of all Californians. In 2018, 175 Cooperative Extension (CE) advisors were conducting research, outreach, and education from locally based CE offices. Nine statewide Research and Extension Centers (RECs) provide educational opportunities for the public and places for researchers to conduct field experiments. Approximately 565 affiliated Agricultural Experiment Station (AES) researchers were located at three campuses, and 115 CE Specialists were located at five campuses, RECs, and county offices. UC ANR maintains and enhances connections that engage UC with the people of California through more than 3,000 local partnership programs.

For over 100 years, our advisors, specialists, faculty, and staff have been committed to:

- Connecting Californians to their University
- Leading the way to science-based solutions
- Providing information that is trustworthy and not biased
- Sharing research that is practical to use
- Addressing local concerns as part of the community
- Inviting the participation of concerned stakeholders
- Facilitating problem-solving and outreach to address the state's toughest challenges



2017- 2018 Highlighted Outputs & Activity

18
novel ideas led to patent applications

>800
policy engagement activities

>1,000
credible, audience-driven educational materials

>100,000
meetings, workshops, field days and classes held

820,000
direct contacts/ educational exchanges with adults and youth

Promoting Economic Prosperity

Improved Individual and Household Financial Stability

Californians learn to save money on food

Making Every Dollar Count is delivered through CalFresh Healthy Living, UC. The curriculum is designed to help adult participants gain the skills needed to take control of their money through food buying and budgeting along with other food and resources management techniques. The majority of participants reported improvement in their knowledge about covered topics such as knowing easy ways to save money on food (83%) and understanding food ads (83%). (Kamal Khaira and Katie Panarella)

Enhanced Community Economic Development

Research informs policy on payments for ecosystem services

Research is leading to a better understanding of the value of the services rangelands provide for public benefit. If payments can be provided for these ecosystem services, it could support the long-term sustainability of generational range landowners and provide an income stream. Case studies were developed using quantitative analysis of surveys from landowners. These findings were shared at the California Economic Summit and, as a result, the Working Landscapes subgroup met with a state senator to seek funding for ecosystem service pilot programs that incentivize landowners for bundled services. Monetary credits will be quantified with support of scientific research. (Stephanie Larson)

Increased Agriculture and Forestry Efficiency and Profitability

Growers reduce crop losses

UC ANR scientists diagnosed infectious pathogens and addressed potential production issues faced by large-scale vegetable crop growers in the Central Valley. In one example, improved prediction of beet curly top virus (BCTV) avoided losses approaching $100 million in processing tomatoes. In another example, one of the major processors of garlic is now treating fields at planting with fungicide, which is reducing risk of white rot and saving a substantial percentage of the crop. Damage in replicated studies has been reduced by as much as 68% with the use of a fungicide, making the savings to the garlic industry in Fresno County as high as $5 million per year. (Thomas Turini)

Urban farms incorporate business practices

Urban farmers have indicated they face significant challenges around the economics of urban farming, including issues such as costs, pricing, marketing, and access to capital. Education and outreach for small farmers and urban agriculturists was provided through in-person workshops and online resources. Ninety participants reported that they used the information after a “Marketing and Business Management for Urban Farmers” workshop to develop a new or improved marketing plan (54%), change one or more business practices (33%), and improve sales (26%). (Rachel Surls and Rob Bennaton)

Sales of boron-tolerant almond rootstocks increase

Almond growers in the Central Valley are looking for ways to reduce boron toxicity from the over-supplied, naturally occurring element in soil and water. A collaborative project identified tree rootstocks that can decrease boron toxicity. Research findings were extended, leading to decreased planting of the least boron-tolerant almond rootstock that was previously one of the most planted rootstocks in Yolo County. Sales data from two nurseries indicate a significant increase in planting of rootstocks the trial found to be superior: sales doubled over the last few years. (Katherine Jarvis-Shean)

Increased Emerging Food Economies and Markets

Growers adopt superior varieties of crops creating new market demand

Kern county has 140,000 acres of pistachios. To help growers in Kern maintain their competitiveness, UCCE recommends planting new pistachio varieties Golden Hills and Lost Hills. The total acreage of these novel cultivars now exceeds 50,000 acres. In addition to having superior nut quality characteristics, these earlier maturing UC cultivars are reducing the need for large expansions in huller capacity and harvesting equipment. In the past two years combined, royalty and fee payments for Golden Hills alone were close to $4 million. (Craig Kallsen)

Improved Animal Management, Productivity and Efficiency

Ranchers plan to adopt new practices for livestock health

A workshop focused on low-stress livestock handling was held to address ranchers' high-priority concerns about livestock management and health. This approach to livestock handling allows the producer to gather and place livestock in particular locations on the ranch with reduced stress to both the animals and the people. Of 48 participants, 100% said they gained useful information and 79% said they would incorporate the information into their operations within the next 24 months, with 13 participants indicating they would incorporate information into their operations within the next six months. (Devii Rao)

Economic analysis to identify controls for deadly swine virus

Porcine Reproductive and Respiratory Syndrome (PRRS) is the most economically damaging swine disease in the U.S., with one estimate of $560 million in annual damages to the swine industry. PRRS can kill the infected and reduces animal productivity. UC ANR researchers are collaborating to identify how disease diffusion during outbreaks is affected by farmer investments. Although commercial vaccinations are only partially effective, simulations indicate that widespread vaccination of sow farms would significantly reduce disease spread. Vaccination conveys significant economic externalities as non-vaccinating farms benefit greatly. Vaccination is increasingly profitable as a higher share of the herd is vaccinated. Further outreach and education around this research finding could improve animal productivity. (Lovell Jarvis)

600%

increase over five years in growers using budwood from UC ANR's Citrus Clonal Protection Program

$2,900,000

$32.80 per month saved by EFNEP graduates, collectively saving California families $2.9 million

Safeguarding Sufficient, Safe, and Healthy Food

Improved Food Security

Nutrition Policy Institute partners to initiate California's first Food Waste Prevention Week

Uneaten food is the single largest item in California's landfills, so preventing food waste can divert food from landfills to feed people. In February 2017, the Nutrition Policy Institute in partnership with the Public Health Alliance of Southern California initiated a multi-sector collaboration among California state agencies to increase awareness of food waste and ways to prevent it. California's inaugural Food Waste Prevention Week was launched successfully in March 2018 and gained official support and participation from California's Governor, Secretary of Agriculture, Superintendent of Public Instruction, and other leaders. The multi-agency, shared-messaging campaign was estimated to reach millions based on unique page views via social and traditional media. (Wendi Gosliner)

Tribal Food Security project

Fourteen million Californians are food insecure. One UC ANR research project collaborated with the Karuk, Yurok, and Klamath tribes to support tribal-led solutions to reduce food insecurity. Workshops and seasonal food camps focused on understanding, gathering, and processing edible native foods and other subsistence skills as part of the Tribal Food Security Project. The project reached approximately 1,450 participants in its final year. Program evaluations indicate that 80 to 100% of participants learned something new at each camp, and 63 to 100% of participants wanted to learn more or implement their new learning, which can contribute to food security. (Jennifer Sowerwine)

CalFresh Healthy Living, UC participants stretch food dollars farther

The Plan, Shop, Save and Cook curriculum is designed to help adult participants stretch food dollars by learning smart shopping strategies and meal planning. Over 1,200 participants responding to a survey said they adopted food resource-management behavior changes such as planning meals more often (42%), shopping with a list more often (45%), and comparing unit prices more often (44%). Participants also reported improved food security by running out of food less often (36%). (Kamal Khaira and Katie Panarella)

Improved Food Safety

Urban farmers improve food safety practices

UC ANR academics provided online and in-person workshops about food safety basics for nearly 600 urban farmers. Sixty-eight percent of 90 participants who responded to a survey identified food safety risks on their farm and 53% of respondents developed and implemented a food safety plan for their farm based on what they learned in workshops. (Rachel Surls)

Diagnostics ensure safe food production

Food safety has become a critical public concern as outbreaks of food poisoning associated with fresh produce have occurred sporadically in recent years. Safe production practices are vital to get any supply chain off to a clean start, but safe practices during processing are also vital to reduce the transmission of harmful microorganisms. One research project is identifying new diagnostics for assessing successful decontamination of produce during washing, handling, and movement. The outreach program works directly with leadership in the produce supply chain to guide research and enhance uptake of results by industry. (Glenn Young).

75%

of 4-H youth reported knowing how to keep a cooking area clean and safe

83%

of adult EFNEP participants showed improvement in one or more food safety practices

Building Climate Resilient Communities

Increased Preparedness and Resilience to Extreme Weather and Climate Change

Ranchers estimate losses from wildfires

Several academics around the state organized meetings for the ranchers affected by the Waverly, Thomas, Tubbs, and Camp Fires. Information was presented on management practices to safeguard resources, prevent soil erosion, and estimate the cost of replacing forage losses on annual rangelands. Of the nearly 40 ranchers who participated in the loss claim workshops, 89% were able to use the information to prepare a loss claim from the wildfire that impacted their land. (Theresa Becchetti)

Prescribed burns as a fire management tool

Prescribed fire is a critical management tool to support fire resilient landscapes and communities in California. However, its use has been limited due to lack of information, inspiration, and capacity at the local level. Over the last two years, regional UC ANR teams have developed workshop curricula for both in-class and field training on prescribed fire. They have helped local communities build capacity to plan and implement prescribed fire, and helped spur the development of at least six prescribed burn associations. In this time period, UC ANR academics have hosted more than 30 workshops and 20 live-fire trainings, reaching a wide range of landowners and community members throughout California. (Jeffery Stackhouse, Lenya Quinn-Davidson, Kate Wilkin, Susie Kocher, Rob York)

Field survey of fire impact on watershed leads to strategic plan

After 90 percent of the Matilija Creek watershed burned in the Thomas Fire, a UC ANR scientist collaborated with state and federal resource agencies to survey response in the aquatic habitat. Together with similar surveys of streams affected by this 440-square-mile fire and subsequent deadly debris flows, the researcher co-led an effort by public works agencies, non-profits, and other stakeholder groups to develop a published Strategic Plan for the recovery of watersheds after fires and debris flows. To further support ecosystem and community recovery, the scientist gave presentations to 220 people about erosion control and how to recover their landscapes to prepare for future fire events. (Sabrina Drill)

Fire probability maps help CalFire determine projects

Californians increasingly witness record-breaking wildfires, numbers of fire-related fatalities, and homes lost in California. To help CalFire assess fuel reduction projects, UC ANR developed or updated fire probability maps. The maps model fire hazard conditions under different climate scenarios to predict future fire frequencies. This research has contributed to more sophisticated modeling of fire hazards and is also incorporated into CalFire's evaluation protocol for proposed avoided emissions projects.
(Max Moritz)

Cal-Adapt used throughout the state to help with planning

UC ANR and partners developed an online framework for sharing data in the interest of understanding a changing climate in California. This effort includes Cal-Adapt.org, which is a peer-reviewed source for state-sanctioned data depicting climate risks and map overlays. Private companies and state and federal agencies use the tool to facilitate planning and investment strategies. For example, the California Department of Public Health used Cal-Adapt to generate county-level reports of climate-related risks to public health.
(Maggi Kelly)

Protecting California's Natural Resources

1,000

1,000 wild horses were gathered from rangelands and adopted

2 million

ft² of pollinator habitat were enhanced by participants in UC Master Gardener programs

Protected Soil Quality

Anaerobic methods tested as alternatives to soil fumigants

Growers of high-value crops have heavily relied on soil fumigants to reduce soil-borne pathogens and pests such as plant parasitic nematodes. With the ban of methyl bromide for most crops, and the continued pressure for discontinuation of other fumigants, alternative management strategies are urgently needed. Researchers collaborated with USDA-ARS to test alternative chemicals and methods. They found that in the anaerobic soil disinfestation process, microorganisms create conditions that suppress soil-borne pests. Some of these methods were found highly effective in reducing detrimental populations of plant parasitic nematodes in the soil profile, providing environmentally friendly strategies for nematode suppression. (Andreas Westphal)

Improved Management and Use of Land

Data network and drone testing to monitor tree die-off

From 2010 to 2018 an estimated 147 million trees died in California, alarming and overwhelming forest managers, government agencies, and the public. While western bark beetle is the key vector, a UC ANR team recognized that the die-off was a multi-faceted challenge. In response, the UC ANR team established the Tree Mortality Data Network to engage managers and stakeholders at scales beyond what field research can encompass. This network serves as both an outreach and information hub. (Jodi Axelson, John Battles). Researchers have begun testing UAVs (drones) to detect new conifer die-off earlier. Early detection of dying trees can have a profound effect on subsequent insect spread and outbreak intensity. Forest management tools can mitigate future losses. (Jodi Axelson)

Increased Ecological Sustainability of Agriculture, Landscapes and Forestry

Home and community gardeners learn least-toxic pest management techniques

UC Master Gardeners provided education through the Healthy Garden – Healthy Home Program about least-toxic pest management methods with the goal of reducing pesticide runoff into San Diego's waterways. The UC Master Gardeners reached approximately 27,500 individuals through 103 community events and workshops around the

county. In pre- and post-tests 93% of 103 respondents who attended workshops indicated that that they learned three or more least-toxic pest management methods that they would use in the future. (Cheryl Wilen)

Improved Air Quality

Switching from air to ground sulfur spray reduces air pollution

Several endemic diseases have increased significantly during the past decade and growers are looking for assistance with pest management solutions. UC ANR scientists have conducted numerous fungicide efficacy trials for powdery mildew control in tomatoes, beginning with sulfur. Educational programs for growers and pest control advisers (PCAs) have outlined the best management practices for sulfur use. The recommended practices have been used on 120,000 acres. UC ANR researchers recommended applying sulfur by ground equipment rather than airplane, leading to less off-target movement of pesticides and improved air quality. Data analysis indicated that of the tomato acres treated with sulfur, ground application increased from 18% of treated acres in 2006 to 58% in 2015. (Brenna Aegerter)

Improved Water Use Efficiency and Water Supply Security

Improved irrigation management practices

Orchard health and production is sensitive to irrigation management. Research and extension efforts have helped farmers improve decisions on when to irrigate, how much water to apply, and how to design and maintain systems. Information shared with 175 farm managers in the northern San Joaquin Valley inspired adoption of recommended irrigation management practices. Managers and consultants are now incorporating orchard stress indicators measured with a pressure chamber, using real-time crop water use estimates, and/or conducting soil moisture monitoring into their routine on-farm water management practices and decisions. Additionally, four growers who collectively farm 3,500 acres of almonds and walnuts adopted zone irrigation systems. These practices will help managers effectively meet long-term water needs to sustain orchard production while improving water supply security by using water judiciously. (Alan Fulton)

Improved Water Quality

Improved understanding of nutrient management and irrigation practices

The California Department of Food and Agriculture requested that the California Institute for Water Resources (CIWR) train Certified Crop Advisors (CCAs) on nitrogen management planning. In response, CIWR coordinated 30 UC ANR academics to design, create, and deliver curriculum on nutrient and irrigation management to over 1,000 CCAs. As a result of the training, the CCAs are now certified by the state to sign off on grower nutrient management plans and will be working with 70% of the growers in the state. Participants reported improved understanding of nitrogen management and improved capacity to advise on a nitrogen management approach. (Doug Parker)

Evaluating nutrient management in almonds

Almonds are now one of the dominant crops in California and have high nitrogen input requirements. UC ANR is working with the California Almond Board to establish a long-term nutrient, soil, and groundwater monitoring site to evaluate nitrogen fluxes in an almond orchard and their response to improved irrigation and nutrient management. Results have shown that management practices have significantly improved nitrogen use efficiency and, as a result, measurably reduced soil nitrate leaching. The work will also measure the response of such practices with an extensive groundwater monitoring network over an extended observation period. (Thomas Harter)

Promoting Healthy People and Communities

83%
of 4-H youth surveyed did community service

87%
of 4-H youth report social and leadership skills

Improved Health for All

EFNEP participants improved diet quality and physical fitness

Adult and childhood obesity is a public health crisis, resulting in a range of negative health consequences. Expanded Food and Nutrition Education Program (EFNEP) and CalFresh Healthy Living, UC delivered nutrition education programs to over 138,000 youth as well as policy, systems, and environmental change strategies to prevent overweight and obesity. A random, representative sample of over 51,000 EFNEP participants were surveyed. Adult participants showed improvement in one or more diet quality indicators (95%) and in one or more physical activity behaviors (86%). Eighty-one percent of youth improved their abilities to choose foods according to federal dietary recommendations. (Katie Panarella)

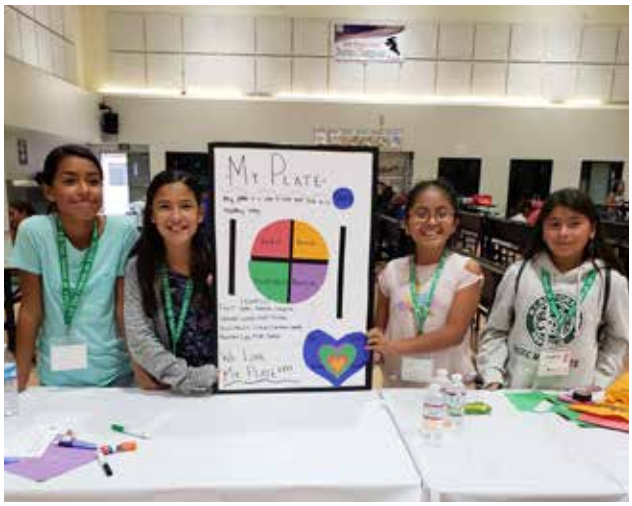
Research leads to changes in nutrition policy

UC ANR researchers provided evidence-based recommendations to the California Department of Public Health regarding the SNAP-Ed program. Their work led to the adoption of two new curricula and the adoption of new requirements for local health departments in their implementation of SNAP-Ed. These changes will lead to stronger, more focused SNAP-Ed interventions and better health outcomes for individuals reached by the program. (Carolyn Rider)

Improved Community Health and Wellness

Farm-to-school strategies entice students to eat healthful foods

Because students are often unfamiliar with locally grown foods, additional promotional efforts are needed to introduce local produce to students and reduce potential food waste. In San Mateo County and Santa Clara County school districts, CalFresh Healthy Living, UC sites adopted cafeteria promotion, farm-to-school, and school garden strategies to introduce 36 local produce items. Student selection, consumption, and interest in new produce items increased. One school food service director aligned the produce served in the cafeteria to what is grown in the school garden. Additionally, parents shared the desire to purchase new produce items because their children tried and liked them at school. (Wei-ting Chen)

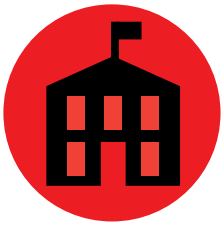


Policy engagement leads to future assessments to improve WIC participation

Because one in four children are overweight or obese by the time they begin kindergarten, obesity prevention must start at the beginning of life. UC ANR academics in the Nutrition Policy Institute provided resources and recommendations to decision makers about the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) and the WIC food shopping experience. As a result, the California state government provided funding to assess satisfaction with the program before the state transitions from paper to electronic benefit cards and possibly updates the WIC food packages. This project will enable improvements to and future assessments of WIC participation, contributing to greater food security and nutrition among low-income families with young children. (Lorrene Ritchie)

>180

CalFresh Healthy Living, UC program sites in 27 counties made changes to promote physical activity



750

school teachers participating in CalFresh Healthy Living, UC reported more of their students are now able to identify healthy food choices

Improved Access to Positive Built and Natural Environments

Outdoor educational opportunities for Latinx youth foster access to and appreciation of nature

Latinx youth are among the most under-represented groups in outdoor recreation and environmental education organizations. To address this gap, UC ANR piloted a new program that provides outdoor experiential learning opportunities titled, ¡Descubre Outside! Discover Afuera! Forty-three, mostly Latinx youth, participated in the program. All of the participants noted that they now enjoy spending time outdoors. Youth also expressed that they care about the environment (97%) and said this program has helped them to learn about environmental issues (80%). (Russell Hill)

Youth-led outdoor physical activity strategy is adopted by school district

Empowering youth as leaders to address health issues affecting their families will create change in Imperial County, where there is a high obesity rate among youth and little access to recreational facilities. A CalFresh Healthy Living, UC nutrition educator supported 10 young people in youth-led research. As a result of student findings and advocacy, the district adopted stencils, which created opportunities for outdoor physical activity for 488 students. Eight teachers also adopted garden-enhanced nutrition education, among other physical and nutrition education activities. (Paul Tabarez)

Developing a Qualified Workforce for California

Increased Workforce Retention and Competency

Technical training and assistance for SNAP-Ed delivery helps local health departments

To ensure that Supplemental Nutrition Assistance Program Education (SNAP-Ed) efforts are effective, UC ANR provided training and technical assistance to local health departments. Assistance included webinars and a workshop about evaluation, reporting, and communications. Over 70% of participants reported that they were able to apply what they learned to their SNAP-Ed work. Further, adoption of the information-sharing platform was observed at local health departments. (Carolyn Rider and Amanda Linares)

Growers learned improved practices

UC ANR developed curricula and delivered professional development opportunities in Spanish and English for agricultural production and landscape management. In Monterey County there was a 25% increase in knowledge among the 5,000 growers who participated in workshops on a range of production issues. (Maria de la Fuente). In the San Francisco Bay Area, 70% of 653 participants in 35 workshops on soil quality reported increased knowledge of soil management practices and improved food safety. (Rob Bennaton)

Increased Civic Engagement

UC 4-H youth extend science-based information to their communities

In testing new science curricula, 4-H youth increased their concept knowledge understanding, including county fair biosecurity strategies and animal husbandry practices to help mitigate livestock/predator interactions. Youth applied leadership skills by extending evidence-based information to their peers and community members through service learning projects that included in-person and media-based outreach. (Martin Smith)

Increased Effective Public Leaders

UC Teens as Teachers become leaders

There are few leadership opportunities for low-income, high-risk, middle school and high school youth in Yolo County. Through the CalFresh Healthy Living, UC program, seven participants became teens as teachers and taught nutrition education, food preparation, and cooking lessons to 77 fifth and sixth-grade student chefs. After the intervention, 100% of the teen leaders felt that they could successfully work with younger youth. One school expanded their efforts by developing a Student Nutrition Advisory Council, which led a health education campaign on campus. (Marcel Horowitz and Anne Iaccopucci)

Improved College Readiness

Teens deliver science programs

UC ANR academics identify and implement strategies to engage 4-H teens in leadership roles. In Santa Clara County, UC ANR trained teen teachers to deliver science programs to younger children. Over 70 4-H youth responding to a survey about their experiences and reported learning new things about computer science (93%), interest in a job in computer science (77%), and interest in learning about engineering (76%) (Fe Moncloa). The 61 teen teachers in Sacramento County reported increased understanding of the science process when teaching youth (91%), how inquiry relates to science (87%), and growth in their awareness of nature (84%). (Marianne Bird)

4-H College and Career Pathways Program empowers youth

The local 4-H College and Career Pathways program, targeting female and minority youth members, grew, by almost 50% in Latinx youth participation over the last year. In Federal Fiscal Year 2018, 7,549 youth and 29 peer educators were engaged. Survey results showed that 95.3% of participants "think science will be important in their future," with 96.8% of youth "reporting they are now good at science." These youth members also reported that they feel they can "weigh the pros and cons of future college options." (Katherine Soule)

Developing an Inclusive and Equitable Society

Improved Living and Working Conditions for California's Food System and Farm Workers

Beginning farmers gained access to land

A UC ANR project focused on helping improve the livelihoods of beginning small-scale farmers and ranchers who are minority and under-resourced. Over the last three years, 150 workshops reached over 2,000 participants and provided multimedia educational resources in four languages. Eighty-seven percent of the participants reported learning something new and 44% implemented at least one thing they learned after six months. Further, 14 beginning farmers gained access to land and are starting to farm. (Jennifer Sowerwine)

Science-based research informs policy on farm labor conditions

UC ANR collaborated with the Equitable Food Initiative (EFI) to develop a business case for improved farm labor conditions. They researched the costs and benefits of providing equitable farm labor conditions. As a result of this work, EFI was asked to present to the state Senate an alternative model of accountability in creating a harassment-free culture in California. The California Labor Commissioner's office has expressed interest in continued dialogue regarding ways to apply this model to other workplace settings, particularly with low-wage and vulnerable workers. The findings also informed EFI's internal evaluation processes and interactions with the California Legislature. (Christy Getz and Ron Strochlic)

Establishing index insurance as an alternative for resource-limited farmers

A UC ANR team of researchers is looking at index insurance as an alternative to traditional indemnity-based insurance for crop farmers. Risk can trap resource-limited farmers in poverty and traditional indemnity-based insurance is not a feasible option for them. The team successfully established index insurance for crop farmers in Mozambique and Tanzania and are gathering information about what factors lead to successful uptake to improve the chances of using the approach in the US. The farming poor, both domestically and internationally, may benefit from the wide availability of good quality index insurance. (Michael Carter)

Increased Diversity, Inclusiveness, and Cultural Competency in California's Workplaces

UC 4-H study leads to improved practices to better serve Latinx youth

A UC 4-H Youth Development study identified promising practices used by youth-serving organizations to recruit, engage, and sustain Latinx youth participation in programs. Preliminary findings were extended to 4-H academics and staff from 10 counties, the statewide program office, and the 4-H Foundation. As a result, in Santa Clara and Riverside Counties, bilingual staff teach Spanish speaking youth and families, youth's ethnic identity development is supported, all programs and leadership conferences are free, and free transportation is offered. (Fe Monclola)

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