

A sample of the hundreds of research and extension projects conducted annually by UC Cooperative Extension academics and UC ANR's 11 statewide programs and institutes.

Nutrition program for migrant farm families

EFNEP and CalFresh in Butte County, partnered to deliver eight weeks of programming to mothers and children in a 100-unit migrant farm housing facility. After the program, participants reported eating more fruits and vegetables and increasing their level of physical activity. Other noted changes included decreased consumption of sugar-sweetened beverages and increased checking of nutrition labels on prepackaged foods. (Jona Pressman, Nutrition Education Program Manager, UCCE Butte County)

Almond regulations to reduce pesticide exposure

Replanted almond orchards are treated with pre-plant soil fumigants to control soil borne pests. A USDA-UCCE research, outreach and education partnership showed how utilizing totally impermeable film is effective in reducing fumigant emissions and reducing the amount of fumigant applied. The research was utilized by state regulators to develop buffer zone regulations, which will help improve public health statewide by limiting human exposure to pesticides. (David Doll, Pomology Farm Advisor, UCCE Merced County)

Coffee production increases in California

UCCE conducted a multi-year on-farm research and development program with the goal of producing profitable, high-quality coffee. Marketing options, including farmers' markets, farm tours and internet sales, were explored as well. As a result of these efforts, approximately 30,000 coffee trees are now established on 24 farm sites from Morro Bay to San Diego. (Mark Gaskell, Farm Advisor Emeritus, UCCE San Luis Obispo County)

Aerial and remote sensing to improve water efficiency

Well-managed microirrigation systems can increase water savings and crop yields. Canopy cover sensing research is investigating orchard water use and water needs. The work involves in-field data collection as well as aerial and space remote sensing. The research to date has led to increased yields and thus increases in water use efficiency. (Daniele Zaccaria, UCCE Specialist, UC Davis)

Money Savvy Youth program teaches financial literacy

To increase youth financial literacy, UCCE Alameda 4-H collaborated with the East Bay Asian Local Development Center (EBALDC) to develop, implement and evaluate a financial literacy curriculum called Money Savvy Youth. 4th and 5th graders who participated in the program scored five times higher in a post-test than youth who did not. EBALDC will continue to use this research-based curriculum to reach limited-income youth. (Charles Go, 4-H Youth Development Advisor, UCCE Alameda and Contra Costa Counties)

UC ANR's Mission

Engage UC with the people of California to achieve innovation through fundamental and applied research and education that supports:

- nutritious, safe and sustainably produced food
- economic success in a global economy
- a sustainable, healthy and productive environment
- science literacy and youth development



Parasitoids released for biological control of Asian Citrus Psyllid

Asian citrus psyllid (ACP) populations are being detected with increasing frequency in the Central Valley, threatening \$2 billion in annual citrus production. The parasitoid wasp *Tamarixia radiata* may be an effective tool against ACP. To evaluate this strategy, more than 2.75 million *T. radiata* have been released at about 1,500 different sites in southern California. Researchers are monitoring ongoing impacts on ACP populations and assessing the developmental biology of *T. radiata*. (Mark Hoddle, UCCE Specialist, UC Riverside)

Increased food security for Klamath Basin Tribes

A five-year Klamath Basin Tribal Food Security Project focused on community-driven outreach to improve tribal health and food security among the Karuk, Yurok and Klamath Tribes. Fifteen tribal staff were trained to provide hands-on educational opportunities to manage, gather, grow, prepare and preserve local and traditional food. Nearly 7,000 people participated. In a Basin-wide evaluation, 77% of respondents said they had learned something new; 67% had tried out new skills at home; 64% felt the community is more food secure; and 77% indicated the programs have changed the community in other positive ways. All three tribes have leveraged project successes, securing nearly \$2M for ongoing and expanded youth and community programming, and over \$1.4M for ecological research. (Jennifer Sowerwine, UCCE Specialist, UC Berkeley)

Addressing non-point sources of pollution in groundwater

Several projects are underway to monitor nitrogen, nitrate, and salt in groundwater. An ongoing collaboration with the California State Water Board assesses modeling tools for evaluating the assimilative capacity in groundwater basins with respect to salts and nitrate. Working with the North Coast Regional Water Quality Control Board and Siskiyou County, researchers are developing modeling tools that address management of important threats to groundwater dependent ecosystems. The California Almond Board and a grower-cooperator have established a long-term monitoring site to evaluate nitrogen fluxes in an almond orchard and responses to improved irrigation and nutrient management. (Thomas Harter, UCCE Specialist, UC Davis)

Building Capacity for Prescribed Fire on Private Lands

Training, education, partnerships and policy changes are empowering landowners and others to reconnect with fire as a forest management tool. Classroom and live-fire trainings provided new opportunities for private landowners, volunteer fire departments and others to learn about the safe, ecologically sound use of prescribed fire. The first prescribed burn association in California was formed. Outreach to policymakers helped to inform several state laws passed in 2018 that promise to facilitate the use of prescribed fire on private land. (Lenya Quinn-Davidson, Fire Advisor, UCCE Humboldt County)

