The background of the report cover is a photograph of a rural landscape. In the foreground, there is a lush green orange grove with many trees heavily laden with ripe, bright orange fruit. The grove is situated on a gentle slope. In the middle ground, there are rolling hills covered with trees showing vibrant autumn colors in shades of yellow, orange, and brown. A few small houses and buildings are visible nestled among the trees. In the far background, a range of blue mountains stretches across the horizon under a clear, light blue sky.

UC Cooperative Extension Placer and Nevada Counties

2021 Annual Report



University of California
Agriculture and Natural Resources

Cooperative Extension

Cooperative Extension is a nationwide system for non-formal education which was established by Congress in 1914 to improve America's agriculture and strengthen families and communities. Cooperative Extension is a partnership of the United States Department of Agriculture (USDA), the State land grant universities, and county governments, cooperating to serve local citizens.

The mission of the University of California Cooperative Extension (UCCE) is to serve California through the creation, development, and application of knowledge in agricultural, natural, and human resources. Cooperative Extension was established in Placer and Nevada Counties in 1917. The original agreements stipulated that each county would provide support staff and services in exchange for university-paid programs and professionals. Today, funding for research and education programs comes from county, state, and federal governments; and from competitive grants awarded to county-based academics.

UCCE, also known as the 4-H and Farm Advisor, serves as a local problem-solving center. UC Cooperative Extension works to strengthen and ensure the sustainability of our land, environment, and local communities. We are catalysts, collaborators, educators, and stewards of the land, living in the communities we serve.

In Placer and Nevada Counties, county-based Advisors provide unbiased, research-based information and training through programs focused on Horticulture and Small Farms, Livestock and Natural Resources, and Nutrition Education. Delivery of our 4-H Youth Development and Master Gardener programs is facilitated by hundreds of community volunteers.



copyright © 2010 Wayde Carroll
Placer County Agriculture

From the County Director

UC Cooperative Extension – Placer/Nevada (UCCE) is a unique partnership between the University of California, the US Department of Agriculture, and the Counties of Placer and Nevada. Our UCCE advisors and staff provide research-based information and education to meet the needs of local residents and communities. While our 4-H, Master Gardener, nutrition, horticulture and livestock programs traditionally provide hands-on learning with an emphasis on “helping people help themselves,” our advisors and staff pivoted to virtual program delivery during the COVID-19 pandemic. Through a variety of virtual formats, UCCE helped local residents by providing information, education and training opportunities as well as technical assistance in these areas:

4-H Youth Development

- 20 4-H Clubs served 497 youth members in Nevada and Placer Counties.
- 169 dedicated adult 4-H volunteers facilitated program deliver through club meetings, community events, and county-wide projects

Master Gardener

- Outreach and education activities, including 24 workshops, reached 10,000 people in Nevada and Placer Counties.
- 250 Master Gardener volunteers provided over 15,000 service hours, valued at more than \$375,000.

Horticulture and Small Farms programs

- 182 producers improved business viability and farm sustainability through virtual short courses/classes and field workshops providing 32 hours of training.
- 132 farmers implemented sustainable practices including mulching, cover crops, and/or integrated pest management practices that reduce water use, conserve soil, and manage pests with fewer pesticide applications.
- Reached 61,519 producers with research-based information through our Foothill Farming website, blog, and Facebook

Livestock and Natural Resources

- More than 850 producers, agency staff, and land managers attended 19 virtual and in-person workshops on topics ranging from beef cattle nutrition to prescribed fire.
- Our *New Foothill Rancher* newsletter, our IGTV Channels on Instagram (@flyingmule), our Sheep Stuff Ewe Should Know Podcast, and our Ranching in the Sierra Foothills Blogs, and YouTube channel reached more than 16,000 viewers/listeners in 2020-21.

Nutrition Education

- 191 live virtual nutrition and healthy living lessons delivered to youth and adults.
- 250 lbs. of produce harvested and distributed to families during school meal distribution program at Rock Creek.

Ongoing Applied Research

In addition to the educational and community development activities outlined above, UCCE advisors conducted a variety of locally-driven applied research activities to address real-world needs of Placer and Nevada County agricultural producers.

Collaboration with county government, community partners, farmers and ranchers, and 4-H and Master Gardener volunteers allows us to provide these education and learning opportunities. We are grateful for their support and assistance.

Dan Macon

County Director, Placer and Nevada Counties.

Livestock and Natural Resources



Program Highlights 2020-21:

- More than 850 producers, agency staff, and land managers attended 19 virtual and in-person workshops on topics ranging from beef cattle nutrition to prescribed fire.
- Our virtual outreach efforts, including online webinars and a new podcast, have reached more than 1,000 people since the COVID-19 shelter-at-home orders were issued.
- Our *New Foothill Rancher* newsletter, our IGTV Channels on Instagram (@flyingmule), our Sheep Stuff Ewe Should Know Podcast, and our Ranching in the Sierra Foothills YouTube channel reached more than 16,000 viewers/listeners in 2020-21.
- Our Ranching in the Sierra Foothills blog (<https://ucanr.edu/blogs/RanchingintheFoothills/>) featured 27 posts and more than 14,300 page views.

Commercial livestock production in Placer and Nevada County is largely rangeland-based (beef cattle, sheep, and goats), but also includes small-scale commercial poultry and hog production. In addition to serving these producers, UCCE also serves local, state, federal, and NGO land and resource managers who focus on rangeland resources. Our 2020-21 research and extension programs focused on the intersection between climate change adaptation, livestock production systems, and agricultural business viability.

We continue to work with local producers to improve livestock production and pasture/rangeland management systems. Through workshops, webinars, and a newly created podcast, we provide research-based information on sheep, goat, and cattle husbandry practices, irrigated pasture and rangeland management, and the utilization of new technology (including electronic identification and remote sensing). We have also developed several economic analysis tools for producers, focused on pasture and drought management.

Increasing climate variability presents numerous challenges for ranchers and resource managers. In addition to addressing drought management, we have worked with producers to develop a locally led Livestock Access Program, designed to provide safe access for ranchers who need to care for livestock in evacuation zones.

Conflicts between livestock production and predator management in the foothills and Sierra continue to be challenging. We are leading a regional effort to provide livestock producers with science-based information about a variety of nonlethal livestock protection tools. We are also working with ranchers, the U.S. Forest Service, and the California Department of Fish and Wildlife to better understand options for protecting livestock from gray wolves, mountain lions, and other predators throughout the region.



Contact info

Dan Macon

Livestock and Natural Resources Advisor
and County Director

530-889-7385

dmacon@ucanr.edu

<http://ucanr.edu/sites/livestock>





Horticulture and Small Farms

Program Highlights 2020-21:

- Delivered 14 virtual courses and classes, and field workshops providing 32 hours of training to 182 producers.
- Directly assisted 132 farmers to implement sustainable practices including mulching, cover crops, and/or integrated pest management practices that reduce water use, conserve soil, and manage pests with fewer pesticide applications.
- Provided tools and assisted 34 new and beginning farmers to plan their new farm businesses, increasing the probability of success.
- Reached 61,519 producers with research-based information through our Foothill Farming website, blog, and Facebook.

Placer and Nevada County farmers produce a wide range of horticultural crops; including fruits, vegetables, nuts, and nursery crops. These crops are grown on small family farms, feeding the demand for high quality local produce.

The small scale of most Placer/Nevada farms creates challenges to economic viability and the stability of local agriculture. UC Cooperative Extension (UCCE) helps growers meet these challenges. We develop and deliver training to area farmers and provide on-demand information on our Foothill Farming website and blog. We foster networking among producers and provide individual assistance to commercial producers through farm calls, phone and e-mail consultations. Our programs train new farmers, help farmers build to scale; improve business and risk management skills; and help implement sustainable practices to manage soil, water, pests, and changing climate conditions.

We also conduct applied research with local growers to develop appropriate practices for the foothills. The Horticulture and Small Farms Advisor took academic sabbatical leave for six months in 2020-21 to study impacts of mulch in orchards. Our results show that mulch

- maintains soil moisture, reducing water use;
- reduces tree stress due to temperature fluctuations;
- reduces fruit drop and prevents yield loss;
- increases winter soil temperatures, providing frost and freeze protection;
- improves soil and tree root health

These help mitigate current drought and variable weather conditions, leading to healthier and more productive orchards.



Contact info

Cindy Fake

Horticulture and Small Farms Advisor

530-889-7385

cefake@ucanr.edu

[http://ucanr.edu/sites/
placernevadasmallfarms/](http://ucanr.edu/sites/placernevadasmallfarms/)



CalFresh Healthy Living UC



Program Highlights 2020-21:

- 19 virtual lessons recorded
- 18 book readings recorded
- 250 lbs. of produce harvested and distributed to families during school meal distribution program at Rock Creek Elementary School.
- 191 live virtual lessons delivered to youth and adults
- 176 Facebook posts
- Cooking with Mrs. Carter - 134 student participants. School administrators, teachers, food service, parents, and students collaborated to make these events successful.

The vision of CalFresh Healthy Living, UCCE Placer and Nevada Counties is to teach CalFresh eligible children and adults about good nutrition, how to stretch their food dollars, and how to be physically active at any age. Effective, evidence-based nutrition education, garden education, and physical activity classes are aligned with policy, systems, and environmental change strategies to create long-lasting community change.

Students and teachers in qualifying schools receive direct education on nutrition, physical activity and garden topics with USDA approved nutrition curricula, resources, and trainings. We also reach parents through workshops and family events at participating schools. CalFresh eligible adults receive direct education through classes and trainings.

Typically, the CalFresh Healthy Living, UCCE program activities and numbers look very similar year after year. However, 2020-2021 posed significant challenges and usual activities and outreach came to a halt. Staff were challenged to think creatively and come up with new ways to deliver education. Lessons were delivered to youth and adults virtually and we relied heavily on indirect delivery methods using newsletters, Facebook posts, virtual cooking with kids, and virtual school garden lessons. Throughout the year staff have continued to keep in close contact with school administration, staff, and other partners to ensure we stay abreast of the continually changing dynamic brought on by the pandemic, and to ensure we are adapting to the needs of our clientele.



Contact info

Michele Fisch
Community Education
Supervisor

530-889-7350

mafisch@ucanr.edu

<http://ucanr.edu/sites/letseathealthy>

Nevada and Placer Counties 4-H Youth Development



In 2020-21, 4-H programs offered experiential learning activities and leadership opportunities to youth in Nevada and Placer Counties.

4-H Youth Members

Nevada: 221
Placer: 276

4-H Adult Volunteers

Nevada: 83
Placer: 86

4-H Youth Leaders

Nevada: 47
Placer: 75

4-H Community Clubs

Nevada: 7
Placer: 13

The 4-H Youth Development Program provides a variety of enrichment activities that support the development of life and leadership skills for young people. The focus of 4-H programs is positive youth development through science, healthy living, civic engagement, and leadership. 4-H programs are accessible and open to all

Both the Placer and Nevada 4-H programs adjusted to serve our communities during COVID-19. 4-H staff and volunteer leaders established virtual opportunities for 4-H youth, and have created innovative ways for youth members to participate and learn from home. Statewide, we have transitioned our in-person events and made them virtual. 4-H youth have been able to participate in online opportunities such as virtual 4-H State Leadership Conference, 4-H Statewide Camp, the 4-H Mindful Mechanics, and 4-H Animal Science & Welfare Project.

Program Highlights 2020-21:

- Placer County 4-H Ambassadors held a virtual Talent Show with both Placer and Nevada County 4-H; over 50 4-H members participated.
- County Presentation Day was offered virtually to all Placer-Nevada 4-H youth. 24 youth members participated. These youth were then able to go on to Regional and State 4-H Presentation Day.
- Between Placer and Nevada Counties, the 4-H program provided nearly \$18,000 in scholarships to graduating seniors. These funds were raised by 4-H volunteers and program staff.
- Training sessions for volunteers and youth officers successfully transitioned to a virtual format.



Contact info

Jill Simmons

Nevada County 4-H Community Education Specialist

530-273-4563

jcsimmons@ucanr.edu

ucanr.edu/sites/nevadacounty4h

Placer County 4-H

530-88-7386

placer4h@ucanr.edu

ucanr.edu/sites/placercounty4h

Master Gardeners of Nevada and Placer Counties



Program Highlights 2020-21:

- 250 certified Master Gardener volunteers provided over 15,000 hours of service.
- Master Gardener outreach and education reached over 10,000 people with gardening and composting information.
- Volunteers delivered 24 workshops on various topics, including: Water Wise Gardening, Firesafe Landscaping, Pest Management, Vegetable Gardening, Pest Prevention and Diagnosis, Recycling Garden Waste, School Gardens, Perennials and Flowering Shrubs, Soil and Irrigation, Community Gardens

The UC Placer and Nevada Master Gardener Program provides volunteer training and horticultural knowledge to enhance home landscapes and garden experiences while striving to improve and preserve the quality of our natural environment.

The UC Master Gardener Programs in Placer and Nevada Counties began in 1983 to meet the demands of the growing population and mitigate one-on-one requests to Extension staff for home gardening and related information.

Interest in home gardening and urban horticulture continues to grow. Gardening is the most popular hobby in the United States, and landscape/nursery crops are now the third largest agricultural crop in California. UC Master Gardeners identify issues and needs of Placer and Nevada County residents and develop educational activities to address these concerns in the areas of home horticulture and composting.

With the goal of shifting public perceptions of yard and garden debris from “wastes” to “resources,” the University of California Cooperative Extension’s volunteer Master Composters have engaged the public in recognizing the importance of organics management through composting, vermi-composting, and shredding/chipping/mulching. These activities alone can divert between 20 and 35 percent of a family’s garbage from the landfills and have helped Placer and Nevada Counties meet state mandated diversion rates.

The COVID-19 situation and subsequent stay-at-home order in California created a huge increase in interest for backyard gardening. Although in person activities have been limited since March 2020, the Master Gardener volunteers maintain their social media pages, their phone hotline and public newsletter, The Curious Gardener. In the 2020-21 year, the Master Gardeners were able to put together online public workshops. The Master Gardeners set up virtual workshops that were available to watch live and posted to our websites for anytime viewing. The Master Gardeners gave 21 virtual workshops on a variety of topics reaching over 1,225 views. These will continue to be a resource for our community even after we resume in person activities.



Contact info

Kevin Marini

Master Gardener/Composter
Community Education Specialist

530-889-7385

krmarini@ucanr.edu

Placer County MG Hotline

530-889-7388

mgplacer@ucanr.edu

pcmg.ucanr.org

Nevada County MG Hotline

530-273-0919

ncmg.ucanr.org





Advisors and Specialists who have collaborated on Placer-Nevada projects:

Dr. Rob Atwill (UCD Vet. Med.)
 Dr. Whitney Brim-DeForest (UCCE)
 Dr. Rosie Busch (UCD Vet. Med.)
 Dr. Louise Ferguson (UC Davis)
 Dr. Matteo Garbolotto (UC Berkeley)
 Janine Hasey (UCCE)
 Dr. Tina Horback (UC Davis)
 Susie Kocher (UCCE)
 Dr. Gabby Maier (UC Davis)
 Dr. Franz Neiderhofer (UCCE)
 Scott Oneto (UCCE)
 Dr. Leslie Roche (UC Davis)
 Dr. Tina Saitone (UC Davis)
 Dr. Ken Tate (UC Davis)
 Dr. Alison Van Eenennaam (UC Davis)

Connecting Placer and Nevada County to the University of California

UCCE Placer-Nevada connects our communities to the resources and scientific knowledge of the entire University of California system. Collaborating with colleagues in surrounding counties and UC specialists, we are able to provide world-class, science-based information and assistance on a wide range of topics. These include rice production, nut crops, integrated pest management, oak woodland management, irrigated pasture management, public rangeland management, water quality, human-wildlife interactions, and other agricultural and natural resource topics,. In addition, our local advisors are recognized as state, regional, and national experts on citrus production, small farm economics, small ruminant production systems, and targeted grazing. This collaborative approach is mutually beneficial to Placer and Nevada Counties as well as to surrounding regions.



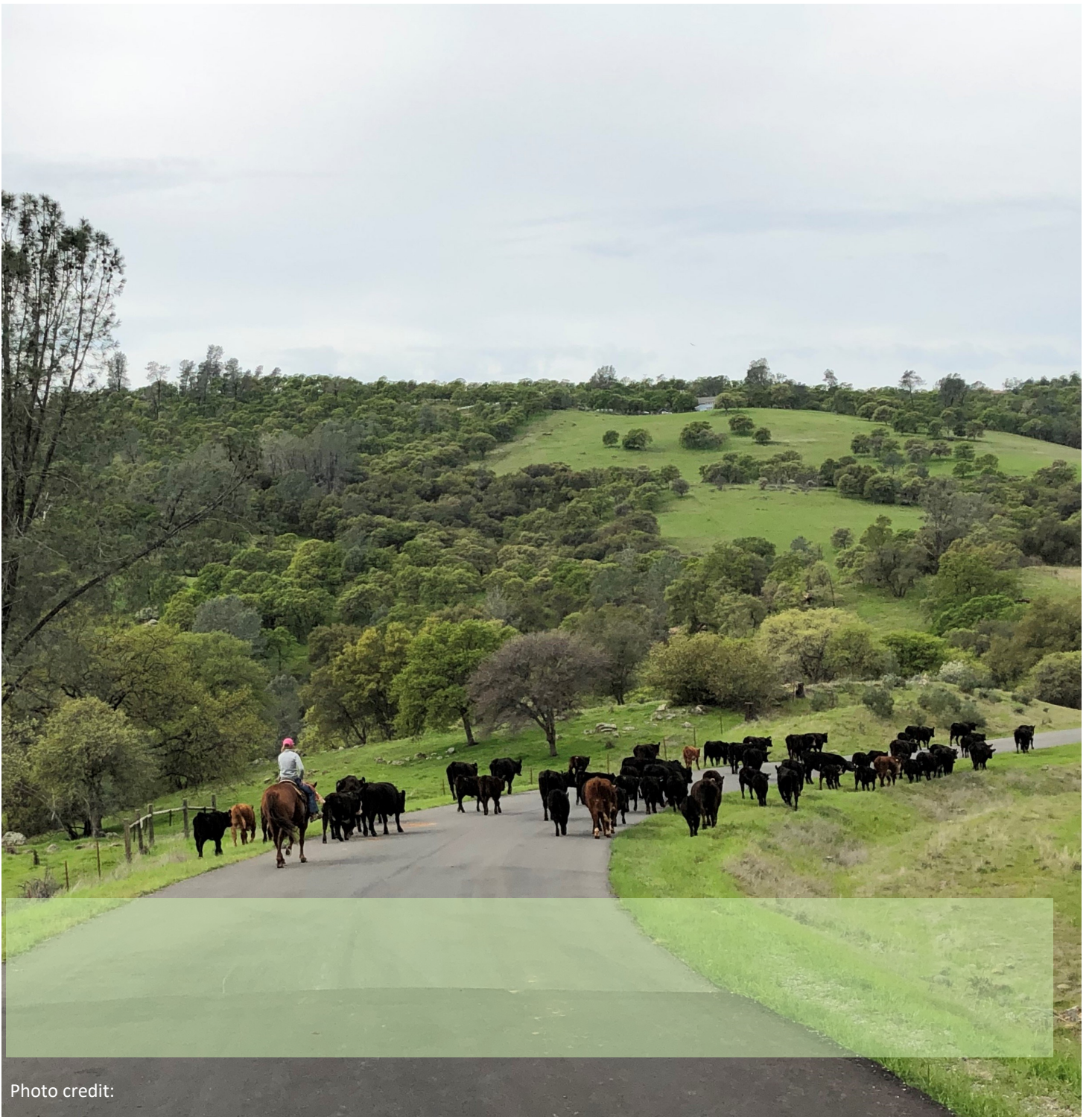


Photo credit:

Programs



Horticulture and Small Farms **Cindy Fake**

Horticulture and Small Farms
Advisor and Co-County Director
530.889.7385
cefake@ucanr.edu
ucanr.edu/sites/placernevadasmallfarms



Livestock & Natural Resources **Dan Macon**

Livestock and Natural
Resources Advisor and
Co-County Director
530.889.7385
dmacon@ucanr.edu
ucanr.edu/sites/Livestock



CalFresh Healthy Living UC Nutrition Education Program

Michele Fisch

530.889.7350
mafisch@ucanr.edu

ucanr.edu/sites/letseathealthy



4-H Youth Development

Jill Simmons

Nevada County 4-H
Community Education
Specialist
530.273.4563
jcsimmons@ucanr.edu
ucanr.edu/sites/nevadacounty4h

Placer County 4-H

530.889.7386
placer4h@ucanr.edu
ucanr.edu/sites/placercounty4h



Master Gardeners **Kevin Marini**

Master Gardener/Composter
Community Education Specialist
530.889.7385

krmarini@ucanr.edu

Placer County MG Hotline:

530.889.7388
mgplacer@ucanr.edu
pcmg.ucanr.org

Nevada County MG Hotline:

530.273.0919
ncmg.ucanr.org

It is the policy of the University of California (UC) and the UC Division of Agriculture & Natural Resources not to engage in discrimination against or harassment of any person in any of its programs or activities (Complete nondiscrimination policy statement can be found at ucanr.edu/sites/anrstaff/files/215244.pdf) Inquiries regarding ANR's nondiscrimination policies may be directed to UCANR, Affirmative Action Compliance & Title IX Officer, University of California, Agriculture and Natural Resources, 2801 Second Street, Davis, CA 95618, (530) 750-1397