



HORTICULTURE & SMALL FARMS

Program Highlights

In 2014-15, Horticulture & Small Farms programs provided **155 hours of training** to 655 producers.

Our Eat Local Placer and Nevada project handed out **21,056 samples of local produce** and distributed over **40,000 recipe cards** with nutrition information.

We reached **201,295 local consumers** through web, radio, and print media and provided information in person to **23,887 consumers**.

Placer and Nevada County farmers produce a wide range of horticultural crops; including fruits, vegetables, nuts, and nursery crops. This production comes from small family farms, which feed a growing demand for high quality local produce. Often, however, our farms cannot produce enough to meet demand. We need new farmers, and as farmers age, the need is becoming more and more critical.

The small scale of most Placer/Nevada farms creates challenges to economic viability and the overall stability of local agriculture. Connecting consumers to local farms and ranches is critical to economic viability. Specific issues include: training new farmers; marketing and small farm economics; and using sustainable practices to manage soil, water, and pests. The fourth year of drought has exacerbated the challenges faced by local farmers, and UCCE is trying to help growers meet those challenges through education and technical assistance.

The mission of the UC Cooperative Extension Horticulture and Small Farms Program is to:

- *Provide information, education, and technical assistance to help farmers build and sustain economically viable farming enterprises.*
- *Provide opportunities that encourage growers to work together to address local problems and needs.*
- *Connect growers with area residents and educate consumers about the importance of local agriculture and encourage them to support it by buying local produce.*





DROUGHT MANAGEMENT



Demonstrating soil moisture monitoring equipment at the Cover Crops Workshop at Dinner Bell Farm, Chicago Park, May 2015.



Growers learn about soil texture and how to estimate soil moisture through hands-on techniques in field workshops.

ISSUE

In the fourth year of the California drought, water supply for agriculture is diminishing and farmers are being asked to conserve water as much as possible. Although cutbacks are voluntary for most farmers, producers are implementing a variety of conservation measures and developing drought strategies for their operations.

WHAT WAS DONE

Concerns about irrigation water availability have continued through 2015, with inadequate rainfall. UCCE has been involved in informing and educating local producers about the drought and strategies for coping with its impacts.

UCCE helped organize and publicize two farmer-rancher drought forums. We have incorporated information on drought impacts and water conservation practices into all of our educational programs, including business planning, pest management, and crops workshops. Conservation techniques include soil moisture monitoring, mulching, and learning to assess plant water stress. We developed information sheets on reducing water use in key crops, which are available on our Foothill Farming website. Since organic matter is a critical component of drought resistant soil, we held a workshop on cover crops to teach farmers about building soil organic matter even in drought.

IMPACT

- 69 growers participated in drought-related production workshops and gained skills in estimating soil moisture and using soil monitoring tools.
- Growers who installed soil moisture monitoring equipment have learned about managing their soil and plants and are using irrigation water more effectively.
- Growers in Placer and Nevada have reduced water use by over 35% compared to 2013.



BEGINNING FARMER TRAINING



Deena Miller of Sweet Roots Farm explaining production practices to Beginning Farming Academy participants.

THANK YOU for holding this class! What a great resource that doesn't exist anywhere else!

-Beginning Farming Academy participant

ISSUE

Increasing consumer demand for locally grown food has heightened interest in starting new farms and ranches. However, most beginning farmers and ranchers have little agricultural experience and need extensive information and support to start their farms. They need to understand not only the production environment but also the business management and marketing involved in creating a successful agricultural business.

WHAT WAS DONE

In 2014-15, UCCE held two intensive 20-hour Beginning Farming Academy sessions. Farm Advisors and producer-trainers provide training which includes visits to local farms and farmers' markets. The Academy is partially funded by USDA Risk Management Agency and Western Extension Risk Management Education; leveraging funds to increase services for farmers.

UCCE also provides on-farm production workshops as well as individual consultations and advice to aspiring farmers and ranchers. We have a mentoring program which matches beginners with experienced producers and provides mentoring for a year. Regular e-mails to 178 beginning farmers provide information, learning opportunities, and regulatory updates.

IMPACT

- 62% of participants in the Beginning Farming Academies in 2014-15 have started their operations and several are already selling their produce to area consumers.
- 67% of Academy participants changed their plans as a result of the Academy. Many cite the need to focus their planning and moving to a business-oriented approach, which increases their likelihood of success.
- Over 600 aspiring farmers and ranchers have participated in workshops targeted to new farmers.



PRODUCER EDUCATION



Farm Tour to Capay Valley. Learning about farm marketing and operational scale from Paul Muller of Full Belly Farm.



*Practical field demonstrations help farmers build skills.
Jim Muck demonstrates the use of a broadfork.*

ISSUE

Managing a successful small-scale farming or ranching operation takes a wide range of skills. Producers need not just production skills, but business, marketing, and risk management skills. In the foothill area, UCCE is the primary provider of hands-on training for farmers and ranchers.

WHAT WAS DONE

In 2014-15, UCCE provided 155 hours of training to 655 producers. Training included five business workshops, the Advanced Farm Business Planning course, five pest management workshops, a 16-week Direct Farm Marketing course at Sierra College, two marketing workshops and a farm tour, and on-farm workshops on cover crops, irrigation, and pest management. On-farm workshops allow experienced farmers to share practical knowledge. Farmer-to-Farmer breakfasts and mentoring also encourage sharing and build support networks among producers.

IMPACT

- In the last decade, we have trained over 4,500 farmers and ranchers in sustainable production, practices, business, and marketing.
- Participants in on-farm workshops adopt best management practices more quickly than other farmers, primarily as a result of peer-to-peer sharing.
- Transfer of skills and knowledge from farmer to farmer is critical to building a strong agricultural community and training the next generation of farmers. Our mentoring program facilitates this. Experienced farmers are mentoring 10 new producers in 2015, improving their chances of success.



PEST MANAGEMENT EDUCATION



Monitoring for pests is key to Integrated pest Management strategies. Ron Morris, Secret Ravine Vineyard



"Since you (UCCE) taught me how to prune my (mandarin) trees four years ago, I have not sprayed for Citricola (scale) once and the orchard is clean!"

-Comment from a long-time Mandarin grower

ISSUE

A global economy and mobile population mean constant vigilance for invasive pests. Among others, Asian Citrus Psyllid and Huanglongbing disease are an increasing threat to our citrus industry; and Spotted Wing Drosophila flies threatens stone fruit and berry production. Growers need to continually update skills and management practices to deal with complex and changing pest issues.

WHAT WAS DONE

About half of grower inquiries to the UC Farm Advisor are pest-related. Drought and unusual weather have exacerbated pests in some crops. The Farm Advisor identifies insect and disease pests and provides advice on management to individual growers. In 2015, 47 growers participated in a 5-part series of Integrated Pest Management (IPM) workshops. These classes build growers' skills in identifying and managing pests.

For over a decade, UCCE has coordinated releases of tiny parasitic *Aphytis* wasps that allow citrus growers to manage California red scale without pesticides. Through e-mail updates, individual consultations, and on-farm meetings, we help growers prevent and manage pests, which reduces pesticide use.

IMPACT

- In the last decade, citrus growers have released 15.6 million tiny parasitic wasps to control scale insects without pesticides.
- Most growers who attend pest management workshops ask about alternative practices rather than using pesticides, signaling a change in mindset.
- Standard grower pest management practices now include trapping, natural enemy releases, and pruning; reducing pesticide use and helping to keep our environment safer.



CITRUS GROWER EDUCATION



Demonstrating soil moisture-by-feel. Understanding soil moisture and matching irrigation schedules to tree needs is critical to citrus quality and yields, especially during drought.



Rich Ferreira of Side Hill Citrus sharing his insights on managing young citrus trees at a mandarin field meeting.

ISSUE

Mandarins have long been the signature crop of the foothills. However, as citrus acreage increases, more issues arise. Growers need to stay up to date on a wide range of topics and evolving best practices. These include pest management, food safety, drought and a changing climate, new regulations, as well as finding markets for their fruit.

WHAT WAS DONE

Mandarin grower association and field meetings help growers keep informed about effective practices, new technologies, and other issues affecting citrus production. 2014-15 field meetings addressed issues such as seasonal irrigation and moisture monitoring, mulching to conserve water, and pest management. We also teach an 8-hour class at Sierra College for beginning citrus growers. Mandarin variety trials have been expanded with the help of the California Citrus Nursery Society to help growers evaluate new varieties, both early and late, and their potential for production in the foothills.

IMPACT

- Citrus field meetings promote farmer-to-farmer information exchange. This has resulted in rapid adoption of best management practices such as pruning, mulching, insectary hedgerows, and natural enemy releases among area citrus growers.
- Informal field workshops also contribute to community building, which helps growers work together on marketing, pest problems, and other issues affecting their industry.
- Many new citrus growers started out in the Sierra College citrus class, and have been able to establish and manage their orchards more effectively as a result.



WEB and SOCIAL MEDIA OUTREACH

ISSUE

Local producers need accessible, accurate information on production, marketing, and business management at their convenience. Beginning farmers need a place to start and get their initial questions answered. The internet and social media are the tools of choice, especially among the younger generation. Effective outreach to recruit younger would-be farmers is essential as our farm population ages.

There is a lot of agricultural information on the web and social media. However, often it is not relevant to foothill conditions, which can create problems for new farmers.

WHAT WAS DONE

The Foothill Farming website, <http://ucanr.org/foothillfarming>, provides access to a plethora of information developed for foothill agricultural conditions. It is a resource and contact point for beginning farmers and ranchers to learn about available resources and training. We update and expand the website regularly to meet producer needs. Local farmers write regular blog posts which address issues and techniques for foothill farmers. The Foothill Farming Facebook page at <https://www.facebook.com/FoothillFarming> has expanded our outreach, driving more users to the website.



IMPACT

- In 2014-15, the Foothill Farming website had 8,556 visitors and logged 27,683 page views. The Foothill Farming blog had 22,220 hits.
- The Foothill Farming Facebook page has 211 “likes” and a total reach over the last year of over 11,000 people.
- Almost 70% of users are new to the Foothill Farming website, demonstrating its value as an outreach tool.
- Only 4.4% of local farmers are under 35 years of age, but 61% of visitors to the website are under 35. This bodes well for the future, as clearly there is interest in small-scale farming among the younger generation.



EAT LOCAL PLACER & NEVADA COUNTIES



Eat Local encouraged consumers to try and buy local produce by providing samples of seasonal recipes, here, Roasted Beet Salad.



The Eat Local Placer Nevada project developed 35 recipes and distributed more than 40,000 recipe cards.

ISSUE

Despite a vibrant local foods movement, only 2% of Placer and Nevada County residents regularly buy locally-grown fruits and vegetables. Consumption of fresh fruits and vegetables is necessary to a healthy diet. Increasing produce sales also enhances the economic viability of local farms.

WHAT WAS DONE

The Eat Local Placer & Nevada project, funded by a CDFA Specialty Crop Block Grant was created to encourage local residents to eat more fruits and vegetables and to buy them from Placer and Nevada County farmers. Through social media, strategic partnerships, and engagement in farmers' markets, the project raised awareness of local agriculture and the importance of eating fresh, local fruits and vegetables. The project:

- Conducted 157 tastings, reaching 25,887 consumers directly
- Distributed 21,056 samples of locally grown produce
- Developed 35 recipes for local fruits and vegetables and distributed over 40,000 recipe cards
- Trained 51 volunteers who donated 286 hours of service
- Fed more than 400 people at 4 community dinners
- Reached approximately 201,000 area consumers through the Eat Local website, blog, Facebook, and Pinterest pages.

IMPACT

- The Eat Local project increased local produce sales by \$49,232 through produce purchases and farmers' market vouchers.

Surveys of consumer participants in Eat Local events show that:

- 62% purchased the fruit or vegetable they tasted
- 61% purchased new or different fruits or vegetables
- 36% purchased more local produce after tastings



EAT LOCAL PLACER & NEVADA COUNTIES



"The Beauty of Buying Local" event at the Auburn Old Town Farmers' Market



Rood Center market customer showing off the produce she purchased to make the recipe.

ISSUE

There are more than 20 certified farmers' markets in Placer and Nevada. Despite proximity to schools, county centers, downtown and residential areas, customer traffic is not sufficient. Year-round farmers' markets struggle to attract shoppers during the winter and spring. Consumer surveys consistently cite "convenience" as the main barrier to purchasing more locally grown produce.

WHAT WAS DONE

The Eat Local Project promoted and raised awareness of local certified farmers' markets by:

- Holding contests at the Rood Center and Dewitt markets to increase county employee attendance. Boxes of fresh fruit were awarded to County departments with the highest percentage and the greatest number of staff participating.
- Organizing the "Beauty of Buying Local" photo event at the Auburn farmers market. Shoppers posed with their purchases for photos posted on Facebook and Pinterest.
- Promoting certified farmers' markets and local produce recipes through e-newsletters, the Eat Local website, Facebook and Pinterest pages.

IMPACT

- Consumers purchased \$19,460 of produce at farmers' markets using vouchers provided by the project.
- More than 200 county workers shopped at the farmers' markets on contest days and farmers reported significant increases in sales.
- More than 40,000 local produce recipes were distributed through tasting and outreach events.
- *"We had one of our best markets on the day of the (county) contest and the week following." – Tim Van Wagner, First Rain Farm*



EAT LOCAL PLACER & NEVADA COUNTIES



Making smoothies on the Smoothie Bike at Auburn Elementary School Family Fun Fair.



Molly Nakahara demonstrates Massaged Kale Salad recipe to at risk teens at the Friendship Club in Nevada County

ISSUE

Low-income and senior residents face significant barriers to accessing local fruits and vegetables. Lack of transportation, low awareness, and perceived higher cost are all barriers. Redemption rates for farmers' market vouchers distributed to low-income and senior audiences have been consistently lower than general consumer redemption rates.

WHAT WAS DONE

UCCE improved access to and awareness of seasonal local produce for low income and senior residents by:

- Providing tastings and local produce distributions at three area food banks.
- Developing recipes specifically for food bank clientele and translating recipes into Spanish.
- Providing cooking classes and recipe kits to at-risk teens at the Friendship Club in Nevada County.
- Collaborating with UC nutrition programs to provide over 1,000 fresh produce samples to low income students.
- Providing tastings and information at school events at three area schools.

IMPACT

- We distributed recipe cards and \$9,616 of local produce to more than 2,000 low-income and senior community members through local food banks and other organizations.
- 30 at-risk teenage girls learned to make a "Massaged Kale Salad" recipe and received recipe kits with produce to take home and prepare for their families.
- Over \$2,200 in low-income and senior produce vouchers were redeemed at local farmers' markets, benefitting both consumers and farmers.