Small-scale family farms in Placer and Nevada Counties feed the growing demand for high quality local produce. These farmers produce a wide range of horticultural crops including fruits, vegetables, nuts, and nursery crops; but often cannot produce enough to meet demand. We need more farmers, and many existing farms need to build to scale to become economically viable.

The small scale of most Placer/Nevada farms is a challenge for economic viability and the overall stability of local agriculture. The romantic vision of a one- or two-acre farm growing food does not provide a living wage to the farmer. Specific issues we address include: training new farmers and helping existing farmers build to scale; marketing and small farm economics; and implementing sustainable practices to manage soil, water, and pests.

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.

Developing efficient production systems and practices is critical to small farm profitability and viability. Ken Barrett of Starbright Acres demonstrating their radish harvest system.
Foothill farms struggle with profitability because of the small scale of operations, high land and labor costs, lack of production efficiencies, and often, inadequate financial and marketing analysis skills. Providing producers with appropriate analysis tools and training is critical to improving farm profitability.

WHAT WAS DONE

UCCE developed profitability calculators to help producers analyze individual crops and overall operations in order to identify problems. We taught producers to use them in a farm profitability workshop. Participants in our 5-week Scaling Up Business Planning course also used them. We presented the calculators and results of our business training at two national conferences; the National Small Farm Conference in September 2016 and the National Farm Viability Conference in May 2017. Audiences included farmers, extensionists, and business service providers. A survey about farm scale conducted with local producers in 2016 revealed the positive impacts of our business training.

IMPACT

- Presenting our work on business profitability brought national attention to our programs, including invitations to collaborate with other practitioners and to present at the National Farm Viability Conference.

- The Scale Survey conducted in 2016 revealed impacts of our training. Survey participants were all professional farmers, and expected to earn money. 71.9% had taken our business planning training.

- 37.5% sold over $100,000, and are on track to or making the $34,000 median Placer/Nevada income.

- Of those who had taken our courses, 96.7% reported being profitable, compared to 24.8% for all Placer/Nevada farms reported in the 2012 USDA Ag Census.
ISSUE
Marketing and business skills are usually not the first qualifications most people think about when it comes to farming. However, managing a successful small farm requires good business and marketing skills as well as awareness of regulations governing agricultural production systems. Building those skills and keeping up to date on regulations can be difficult for busy farmers.

WHAT WAS DONE
UC Cooperative Extension conducted 6 workshops and three breakfast meetings in 2016-17 to help producers improve business and marketing knowledge and skills. These included the 2-day Beginning Farming Academy; one-day workshops on farm business, wholesale marketing, and farm loans; and breakfast meetings on farm taxes, crop and disaster insurance, and farm management; and a workshop at the Nevada County Food and Farm Conference on key considerations for scaling up a farm. Tom and Denesse Willey, renowned California organic farmers, spent an evening and morning with local farmers sharing their accumulated knowledge from 40 years of farming.

IMPACT
- Good business and marketing planning improves decision-making about crop selection, labor, and choice of market, all of which impact farm profitability.
- 146 producers participated in one or more of the trainings provided, improving their skills and knowledge in marketing and business.

Thank you so much for organizing an exceptional course in every respect! ...I have a lot of work to do and you and the faculty have been an inspiration to me.

- 2017 Beginning Farming Academy graduate
ISSUE

High quality fruits and vegetables are the hallmark of foothill farms, but foothill soils are shallow and not very fertile, thus require careful stewardship. Soil and water management practices such as cover cropping and mulching are critical to sustaining production. In addition, increasing regulation of water and fertilizer use means farmers must constantly re-evaluate practices and strive to reduce environmental impacts.

WHAT WAS DONE

UCCE conducted on-farm workshops to help farmers improve skills and knowledge in managing soil, water, and pests. These included a workshop and field meeting on monitoring soil moisture and managing irrigation; a workshop on pruning for optimal production, and a mandarin field meeting focused on using compost and mulch to reduce water use and improve tree health.

IMPACT

- Over 300 growers learned about drought impacts on plant health at UCCE workshops and implemented at least one new soil or pest management or water conservation practice on their farms.
- At on-farm workshops and field meetings, growers shared their techniques and experiences in using low volume irrigation systems and mulching to reduce water use. This has led to adoption of more efficient irrigation systems on a number of farms and widespread use of mulch or compost as a soil amendment. These practices conserve and improve our soils and make production more sustainable.
ISSUE

Pest management is a constantly evolving issue for growers. Our global economy and mobile population means that new pests are constantly being introduced to our agroecosystems. In 2016 and again in 2017, the Asian citrus psyllid (ACP), which carries the deadly citrus disease called Huanglongbing (HLB) was found in Placer County, triggering quarantines. Complex and changing pest situations require that growers continually update their knowledge and skills.

WHAT WAS DONE

About half of grower inquiries to the UC Horticulture Farm Advisor are pest-related. Each year, the Farm Advisor provides growers with a pest update at the Pesticide Use and Pest Management training seminar. In 2016, we hosted the Northern California Citrus Research Board Grower Seminar, focusing on ACP and HLB. After the first ACP find in Placer County, we helped CDFA and the Ag Department organize a meeting to allay grower concerns and then held a workshop to train growers to monitor and identify the psyllid. We also provided a 4-part Integrated Pest Management (IPM) workshop series. UCCE coordinates annual releases of parasitic Aphytis wasps that help citrus growers manage California red scale without pesticides.

IMPACT

- 189 growers participated in one or more pest management workshops. Most growers who attend ask about alternative practices rather than using pesticides, signaling changing practices. Standard practices now include trapping, natural enemy releases, mulching, and pruning.

- In the last decade, Placer County citrus growers have released 13.2 million tiny parasitic wasps to control scale insects without pesticides.

- Through e-mail updates, individual consultations, and on-farm meetings, we help growers prevent and manage pests, reducing pesticide use and protecting our environment.
ISSUE
Mandarins are an important crop in the Foothills. However, growers are challenged by poor soils, limited water, increasing pests, and high production costs. Many growers use non-traditional practices to manage these issues, but there is little data on these practices. The goal of this project is to study the impacts of mulching and pruning on fruit quality and orchard sustainability.

WHAT WAS DONE
Research trials were established in five commercial mandarin orchards. Trial parameters and management techniques were designed in cooperation with the growers hosting the trials. Mulching trials are being conducted in all five orchards, using a 50% horse manure and 50% wood chip mix. Pruning trials, utilizing standardized pruning practices, are being conducted in three of the orchards. Analysis of soil samples has been completed and the results reviewed with the growers. Baseline data on overall tree health and productivity and current grower practices has been collected. Mulching and pruning has been completed for the 2017 growing season.

IMPACT
- Participating growers learned pruning techniques, how to interpret soil analysis results, and received individual fertilizer program recommendations.
- Soil moisture, organic matter, and microbial activity are being monitored to assess the impact of mulch on water use, soil and tree health, and productivity.
- Pruning impacts on tree health and productivity, pest populations, and pesticide use are also being assessed.
- Potential impacts of the pruning and mulching include reduced production inputs and costs, and improved water use, soil and tree health.
- A field day is planned in June 2017 to share information about the trials and practices. By the end of the project, we expect to reach more than 2,800 growers.
ISSUE

Our farmer population is aging, and many are moving out of active production. We have new farmers coming in, but often they are not connected to the agricultural community. Thus, it is important to build links among members of the ag community. Networking, sharing information, and co-marketing all support small farms who may not have the resources or market impact as individual farms.

WHAT WAS DONE

We held three Farmer-to-Farmer networking breakfasts in 2016-17, and a potluck dinner with Tom and Denesse Willey. We also held a farmer picnic to foster community among Placer/Nevada producers. For intensive workshops such as Beginning Farming Academy and Farm Business Planning participant numbers are limited in order to foster peer-to-peer sharing and support. We hold on-farm workshops so that producers see what other farmers are doing and learn about their practices. Most workshops include experienced producers as trainers, helping to integrate participants into the agricultural community. We also provide mentors to beginning farmers and support grower organizations such as the Mountain Mandarin Growers and Sierra Grape Growers that help producers work together.

IMPACT

- Local farms are working together on purchasing, sharing equipment, and co-marketing, which improves access to resources and market opportunities even for very small-scale farmers.

- Farmers working together have a big impact on our local economy. In a study conducted with UC Davis, we found the economic multiplier for locally grown ag products is 1.86. That means for each dollar of local farm products, an additional $0.86 is generated. For every $1,000,000 of ag production, farms generate 29.2 jobs.

- On-farm workshops allow experienced farmers to share practical knowledge and participants adopt best management practices more quickly than other farmers, primarily as a result of peer-to-peer sharing.
Accessible, reliable, and accurate information is essential to busy farmers. Local producers need information on production, marketing, and business management when they have time to look for it. Beginning farmers need a place to get basic information and their questions answered. The web and social media are the tools of choice, especially for the younger generation and provide a lot of agricultural information. However, it is often not appropriate to foothill conditions, nor science-based, which can create problems for new farmers.

WHAT WAS DONE

The Foothill Farming website, http://ucanr.org/foothillfarming, provides access to information specific to foothill agricultural conditions. It is a resource and contact point for beginning farmers and ranchers to find available resources and training. It includes informational videos and regular blog posts that address issues and demonstrate techniques for both beginning and experienced farmers. The Foothill Farming Facebook page at https://www.facebook.com/FoothillFarming expands our outreach, driving users to the website.

IMPACT

- In 2016-17, the Foothill Farming website had 34,749 page views from 10,334 users
- The Foothill Farming blog had 50,604 full page views; providing timely, practical, farming and business information to producers.
- Foothill Farming Facebook page has 303 “likes” and a total reach of 7,766 people.
- Our efficiency videos help farmers improve labor efficiency, which helps increase farm profitability.