

Position Title: Area Sustainable Orchard Systems Advisor for Sutter, Yuba, Butte, and Placer Counties.

Position: The advisor will be responsible for developing a problem-solving and educational program for high priority production issues of horticultural crops. The focus is maximizing sustainability in the area's major fruit and nut tree crops, including walnuts in Sutter, Yuba and Placer counties and cling peach and kiwifruit in Sutter, Yuba and Butte counties, and answering questions for minor fruit and nut crops (chestnuts, pistachios, pecans, persimmons, nectarines, and grapes) in Sutter and Yuba Counties. The advisor would have the opportunity to become the statewide expert in kiwifruit production and an expert in walnut and cling peach production. A minimum of a Master's degree in pomology, production horticulture, or a closely related field is required, as well as technical competency in experimental techniques and experience with extension. Technical competency in tree crops production and knowledge of economics is desired.

Justification: This position would cover three major tree nut and fruit crops in Sutter, Yuba, Butte, and Placer Counties, serving about 993 farms covering roughly 50,000 harvested acres. Sutter, Yuba, and Butte Counties together are ranked first in California cling peach production. Kiwifruit has expanded by 1,000 acres in Yuba County over the last few years and combined with Butte County, is a lead production area in California. The total farmgate value for these crops over the four counties was \$290 million in 2019. This position addresses the high priority initiatives of Enhancing Competitive, Sustainable Food Systems and Enhancing the Health of Californians and California's Agricultural Economy. The position will also be a part of the Food Systems Resilience Network cluster by supporting a diversity of scales and sources producing healthy fruits and nuts. This position is critical to providing support to the hundreds of smaller growers in the area facing unique problems associated with their smaller size. There is a wide variety of scale of growers, from small farms of less than 500 acres (87% of farms in Sutter County), all the way up to those over 1000 acres (6% of farms in Sutter County). Given the prominent proportion of small and medium Punjabi farmers, this position is also a critical component of equitably serving California's farmers. The Punjabi population residing in Yuba-Sutter Area is one of the largest Sikh populations in the country, with Punjabi farmers growing about 95% of the peach crop and 20% of walnuts.

This region is a significant hub for orchard tree nursery innovation, as home to Sierra Gold Nurseries (Sutter Co), MicroParadox tissue culture lab (Sutter Co), and Fowler Nursery (Placer Co). This position would have an outsized impact beyond the region by engaging with and connecting UC colleagues with cutting-edge micropropagation technology and tree development processes that save labor, decrease pesticide reliance, reduce diseases and increase early orchard yields. The relationship with these nurseries has been and continue to be instrumental to the development pipeline of new UC rootstock genotypes and scion varieties, with three long-term trials in place to quickly provide research and extension impacts of statewide importance. Other high-priority issues include increasing walnut and peach management efficiency while reducing the environmental footprint of fertilization, irrigation, and pest management. The development of mechanization methods in peaches to reduce labor and costs is necessary for the continuation of this industry and provides exciting opportunities for technological innovation. The advisor will also have access to the Nickels Soil Laboratory field station in Colusa County to support new and continuing research and extension field days.

The likelihood of producing significant impacts is high because of commodity and allied industry support for this position. Because of its coverage of small and medium growers, connection to the nursery industry and necessity to balance the advisor coverage in the Sacramento Valley, this position is the #1 pomology priority for the Almond, Pistachio, Prune and Walnut commodity boards, and is the second-highest priority for the Pomology Program Team.

Extension: The advisor will provide research-based information developed in local field trials and by UC personnel in other counties and UC campuses. This information will be disseminated through commodity meetings, in-class workshops, field meetings, newsletters, commodity and popular press media outlets,

telephone calls and various online and social media tools, including UC's SacValleyOrchards.com site and associated Twitter account, UC's GrowingTheValley podcast, Sac Valley Orchard newsletter group. Extension efforts will need to cover basic information for small acreage, and new growers, as well as cutting-edge information for more experienced growers.

Research: Research opportunities include testing new pesticide-reducing, pest and disease resistant rootstocks developed through a continuing federally funded UCANR-UCD-USDA joint project. This position will have close connections with the walnut and cling peach breeders at UC Davis. Adaptation to weather extremes, water quality, and quantity (flooding and drought) in orchard crops require more research and extension. Disease and insect management in walnuts and peaches continues to be a high priority research area, as are labor reduction practices in both walnuts, kiwi and cling peach. Results of research projects will be published in commodity board reports, county newsletters, trade journals, academic journals, and ANR peer-reviewed publications.

ANR Network: This position will play a key role in statewide leadership for walnuts, cling peach, and kiwifruit, working closely with the commodity workgroups and UC Specialists and faculty. There is a tightly knit Sacramento Valley Orchards advisors group, which meets quarterly to co-author the Sac Valley Orchard newsletter and support SacValleyOrchards.com. The Sutter-Yuba Counties office in Yuba City is less than an hour from UC Davis. Therefore, this position will have easy access to specialists and faculty, as well as easy access to the ANR building where various training and committee meetings are held. Nickels Soil Lab, managed by UCCE, is an hour away in Colusa with resources to conduct long-term research. The UC Sierra Foothill REC is 30 minutes away, with an orchard where varieties for the foothills are tested, and field meetings are held to reach foothill landowners.

Location and Support: The Sutter/Yuba Counties office in Yuba City would serve as the home office for this five-county advisor position, providing office and lab space, a vehicle, secretarial support, telephone, internet access, and a pesticide storage area. There will be several newer advisors to interact with in the office. The Supervisors in both counties have been consistent and strong supporters of the UCCE office.

Other support: The position is supported by the walnut and cling peach industries. Grant funds are available from these commodity boards, the Canning Peach Association Mechanization fund, the Department of Pesticide Regulation, Fertilizer Research & Extension Program, CDFA Specialty Crops Block Grant program, and other federal and local government granting agencies, as well as a potentially re-invigorating CA Kiwifruit Commission research fund.

Developed and proposed by: The position proposal was developed and revised by the current Sutter-Yuba county director, pomology program team leader and members, the Sacramento Valley pomology advisors, and Butte and Placer County directors. The Research Director/Chair of the California Walnut and Cling Peach Boards respectively, highly support it.