

2021 UC ANR CE Fruit & Almond Area Advisor, serving Fresno & Tulare Counties

Position Title: Fruit & Almond Area Advisor, serving Fresno & Tulare Counties

Position: (1) The Area Fruit & Almond Advisor will cover Fresno-Tulare fresh stone fruit (apricots, cherries, peaches, plums and nectarines) and prunes, and other non-citrus fresh fruit (blueberry, kiwi, persimmon, pomegranate) (98,200 acres, 2,300 growers), as well as almonds on the east side of Fresno County (66,000 acres, 300 growers). The advisor will be responsible for developing a problem-solving and educational program for high priority production issues, including labor saving approaches, pest and disease, nutrition and irrigation management, to optimize both the environmental and economic sustainability of these cropping systems. (2) The position requires a Master's degree or higher in horticulture, pomology, plant physiology, ecology, or related disciplines, and experience in field research and extension service. The ideal candidate will have experience working with people of different backgrounds to work effectively with growers from many different cultures. (3) The position will be headquartered in Tulare County, and report to the Fresno-Madera-Tulare-Kings MCP Director. The position will have the opportunity to become a respected expert and resource to colleagues in fresh fruit production. The position will work with related departments at the Davis, Merced, Riverside, and Berkeley campuses, UCCE specialists in related disciplines and the Kearney Agricultural Research Center.

Justification: Creating and sustaining an equitable and resilient food system in California requires supporting a diversity of types and sizes of producers of healthy and nutritious food. The 2,300 growers of 98,200 acres of temperate (non-citrus) fresh fruit crops in the Fresno-Tulare area, most of whom are small-scale family operations, and many of whom are first- or second-generation Americans, have gone unsupported in research and extension since the departure of Kevin Day in 2017. Fresh fruit orchards, requiring high labor input but often less costly equipment, have been a stepping stone for entry into agricultural prosperity for many hard-working families. However, these systems are now being challenged by increased regulation of, among other things, water use and quality, food safety, nutrient management, labor and changing supply chains. The greatest threat to the fresh fruit industry is the high cost of labor, creating huge opportunities for innovation around remote sensing, automation, and other quickly evolving technologies to reduce costs and sustain local economies. Meeting the research and extension needs of the fruit growers in this area became even more of a challenge with the termination of the California Tree Fruit Agreement as a funding source. An additional challenge in Fresno County is the vast acreage of tree crops, more than half a million acres of which (3,600 growers) are currently being served by only one advisor. This position is designed with the combined goals of meeting the research and extension needs of both fresh fruit growers and east-side almond growers, to ensure adequate advisor time as well as adequate commodity board research funding support. An almonds and stone fruit combined assignment is a natural pairing because of their common genetic heritage, sharing many pest, disease and horticultural concerns and solutions. The east-west almond division is based on differences in soils and water (quality and availability), as well as overlap in almond-fruit acreage ownership.

This position supports the priority of a *Food Systems Resilience Network* by supporting a diversity of growers to produce healthy food in the region. Without an advisor with a significant focus on temperate fresh fruit production, extension to growers of these crops has suffered throughout the state, as there is not an expert resource for other pomology and small and urban farms advisors to turn to. Thus, as an expert in stone fruit production, this position will be integral to the resilience of fresh fruit production in other regions of California by working with colleagues to share research results and extension tools. This position will contribute to UC ANR's public values of *Promoting economic prosperity* by increasing agricultural efficiency and profitability, *Healthy food for all Californians* by supporting to local production of healthy fruits and nuts, and *Protecting natural resources* by increasing the ecological sustainability of agriculture and improving water quality and water use efficiency.

Extension: The advisor will provide research-based information developed in local field trials and by UC personnel in other counties and UC campuses with growers and production support positions (e.g. orchard managers, crop consultants). This information will be disseminated through workshops, field meetings, webinars,

newsletters, industry media outlets, phone calls, and online and social media tools, as is appropriate to the target audiences. 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: The advisor will develop an applied research program focused on improving the efficiency of cultural practices in non-citrus fresh fruit and almond production. The focus of the Area Fruit & Almond Advisor research program will be shaped by clientele needs assessments and the advisor's expertise. Priorities may include fruit harvest mechanization to address labor shortages, canopy size and structure to facilitate harvest efficiency, IPM approaches to pest and disease pressures, and fertilization and irrigation strategies to optimize fruit size and quality. The research objectives should emphasize the development of orchard systems that conserve resources in compliance with state air and water regulations. Research results will be published in commodity board reports, ANR peer-reviewed publications, academic peer-reviewed journals, and through professional society meetings.

ANR Network: Though the research and extension of this position will focus in the Fresno-Tulare region, by providing expertise that is currently lacking among pomology and small farms advisors, this position will increase the impact of UC ANR throughout the state by sharing innovative research and extension resources with fellow advisors as a key player in the *Food Systems Resilience Network*. The advisor will work with CE specialists on topics including diseases (Trouillas), pests (Wilson), tree physiology (Lampinen), automation (Larbi), and remote sensing (Pourea), and Agricultural Experiment Station faculty involved with these commodities, agricultural engineering, pest management, irrigation and other disciplines at the Davis, Merced, Riverside, and Berkeley campuses. There are existing fruit blocks at the Kearney Agricultural REC for this position to start using immediately, and offers of fresh fruit mentorship from Emeriti Specialist DeJong and Advisor Day.

Network External to ANR: The advisor is expected to develop strong connections with state agencies (California Depts of Food and Agriculture (CDFA), Water Resources, Pesticide Regulation), based on prioritized clientele needs, as well as research groups outside of UC (e.g. USDA, NC 140 federal rootstock consortium, CSUs and community colleges) and industry groups (e.g. California Assoc. of Pest Control Advisers, Almond Board of California, California Cherry Board, California Prune Board).

Support: The Tulare County office in Visalia would serve as the home office for this area advisor position, providing office and lab space, a vehicle, secretarial support, telephone, internet, and pesticide storage. There are two others advisors to interact with in the office.

Other support: Grant support funds are available through multiple commodity group (Almond Board of California, California Cherry Board, California Prune Board), as well as state and federal granting programs including Dept. of Pesticide Regulation, Western IPM, USDA Sustainable Ag. Research and Education, and CDFA's Specialty Crop Block, Healthy Soils, and Fertilizer Research and Extension programs. This position is supported by the Almond Board of California.

Headquarters and Coverage Area: This position will be headquartered at our UCCE Tulare County office located at 4437 S Laspina St, Tulare, CA 93274. This position will also serve Fresno County. The Tulare County Board of Supervisors has always been consistent and strong supporters of the Tulare County Cooperative Extension office. Coverage: Fresno-Tulare temperate fresh fruit and prunes (98,200 acres, 2,300 growers), and almonds on the east side of Fresno County (66,000 acres, 300 growers).

Developed and proposed by: This was voted the #1 highest priority position by the Pomology Program Team. Developed by Kat Jarvis-Shean (Pomology PT Chair), Mae Culumber (Nut Crops Advisor, Fresno Co), Karmjot Randhawa (County Director, Fresno, Madera, Tulare and Kings Cos), Kevin Day (Pomology Advisor Emeritus, Tulare Co) and The Almond Board of California.