

2021 UC ANR CE Position Area IPM Entomology Farm Advisor (Monterey, Santa Cruz, San Benito Counties)

Position Title: The CE IPM Entomology Farm Advisor will work with growers, Pest Control Advisers (PCA), farm managers and the broader community in resolving issues stemming from insects and mites. The Area IPM Entomology Advisor will be expected to run a program of research and extension excellence addressing the pest management challenges facing the agricultural endeavor on the Central Coast; Monterey, Santa Cruz and San Benito counties.

The Area Integrated Pest Management (IPM) Cooperative Extension (CE) Advisor for Entomology will be a key member of the UC Statewide IPM Program's (UCIPM) academic team. The IPM Advisor will develop and implement ecologically and economically sound integrated pest management programs. These programs are long term, involving such areas as investigating the basic biology of pests and their relationship with predaceous and parasitic insects as well as monitoring, sampling, diagnosis and the integration of strategies including technological solutions, cultural, chemical and biological controls.

Position: A minimum of a master's degree in disciplines such as entomology, pest management, or other closely related field is required by the appointment start date. A broad understanding of IPM principles, including knowledge of crop production, cultural and biological controls, and pesticide use is required. Ability to identify insects at the family level and be familiar with their life history is strongly encouraged. Quantitative skills and knowledge of, and experience using, statistical analysis and experimental designs are required. Excellent written, oral and interpersonal communication skills are required. Demonstrated ability in conducting, analyzing, and reporting applied research and extension is preferred. Practical field experience in entomology pest management and collaborating with private industry is preferred.

Justification: The three counties to which this position is assigned had a total agricultural production value in 2020 of approximately 5 billion dollars, and ranges across a wide diversity of crops, including major commodities like strawberry, lettuce, spinach, cole crops and floriculture. The challenges facing this giant endeavor are myriad, but several such as the thrips transmitted Impatiens Necrotic Spot Virus (INSV), a host of invasive insects, diamondback moth in cole crops and adapting to lower chemical input pest management across the high value cropping systems in the region.

As the agricultural industry on the Central Coast strives to continue to be efficient and absorb new technologies, the IPM Entomology Farm Advisor very much will need to look at the application and successful use of technologies such as drones for pest management, remote camera baited monitoring systems and testing of new spray systems.

The complex and multidimensional characteristics of the vegetable and fruit industries of the Monterey Bay area require system-approach and the leadership of this UCCE Farm Advisor in multi-discipline teamwork of research and extension professionals will provide successful solutions for sustainable fruit production. The University of California is uniquely positioned to fill this need for leadership in entomology and is expected to provide unbiased high quality results.

Research: The position is responsible for the initiating, coordinating, and executing research projects to implement IPM and assist clientele in solving pest and pesticide-related problems. The

IPM Entomology Advisor will conduct IPM programs in the Salinas and Pajaro Valleys, with an emphasis on interdisciplinary projects that affect cool-season vegetables including leafy greens, such as lettuce, and cole crops, such as broccoli, along with other crops including strawberries and other berries, ornamental and nursery plant production and local specialty crops. Of particular emphasis are those that are interdisciplinary in nature and deemed significant by UC IPM Program, Cooperative Extension, Experiment Station, and/or ANR Workgroups and Program Teams.

Extension: The IPM Entomology Advisor will conduct and report regularly needs assessments to identify priority issues in IPM and entomology or problems relevant to the local clientele groups being served, and communicate data gaps and information transfer problems identified by CE Advisors, PCAs, growers, nonprofits and public agencies, and to other Cooperative Extension and Experiment Station academics, members of the UCIPM Program, and UC ANR administration. Additionally, the IPM Entomology Advisor will make expertise available to regulatory agencies to initiate, contribute to and develop management strategies for invasive species and new or exotic ones.

The IPM Entomology Advisor will initiate, coordinate, conduct, and/or participate in educational programs promoting IPM strategies and tactics. Using accepted and innovative extension techniques, these educational programs will be delivered to PCA's, growers, agencies, and other interested parties. Part and parcel of this program will be an effort to foster an increased understanding of Cooperative Extension's research and education programs in clientele, the public and policy makers. Participation in professional organizations and collaboration with federal, state and county governmental agencies, non-government organizations and others by providing independent science-based information, technical support and leadership and in some specific settings, advocate for UC ANR program awareness and support.

ANR NETWORK The IPM Entomologist not only fills a gap for entomology work in the Monterey Bay area, but will also complement the work of the UCCE Plant Pathologist (for example with the thrips transmitted INS virus), the UCCE Viticulture Advisor, the UCCE Strawberry and Caneberry Advisor, UCCE Vegetable Crops Advisor as well as the Master Gardeners program. Additionally, entomologists in Santa Barbara and the San Joaquin Valley have communicated that this position compliments and adds to work done in their respective areas as well.

NETWORK EXTERNAL TO ANR The USDA Agricultural Research Station in Salinas collaborates with UC and has a field station where research that requires controlled conditions can be carried out. Furthermore, relationships with nearby institutions like CSU Monterey Bay and UC Santa Cruz will also be part of the external network.

SUPPORT: The Area IPM Entomology Farm Advisor will be administratively responsible to the to the UCCE Monterey County Director, with input from the San Benito and Santa Cruz County Directors for the conducting of UC ANR programs. UCCE Monterey County in Salinas will provide office, laboratory, field and greenhouse facilities, administrative, communication and technology services.

The Area IPM CE advisor for Entomology is programmatically responsible to the Director of the Statewide IPM Program. The Advisor will work and collaborate with local UCCE advisors to extend information to clientele. Close working relationships with other UCIPM Program academics is essential for successful program development.

OTHER SUPPORT: The IPM Entomologist will not lack opportunities to find funding support. Numerous industry and government competitive grant programs would be accessible to the IPM Entomologist Farm Advisor. California Strawberry Commission, California Leafy Greens Board, public and private companies, and the USDA, CDFA and CDPR research support programs are some of the options which will be available.

DEVELOPED AND PROPOSED BY: County Directors Maria de la Fuente, Mark Bolda and Devii Rao. UC ANR Pest Management Program Team. Entomology Farm Advisors Surendra Dara and Jhalendra Rijal. Jennifer Clark, California Leafy Greens Research Program