

## **Production Horticulture Advisor, San Diego County**

**Position Title:** The Production Horticulture Advisor in San Diego County is responsible for conducting research, extension and education programs in the areas of improving production and viability of the floriculture, nursery and controlled environment farming industries in San Diego County.

**Position: (1)** The position is expected to address issues in production horticulture including floriculture, nursery, and controlled environment conditions through education and applied research programs and to maintain and disseminate information to the San Diego County clientele. Examples include pest management, invasive species, water use and agriculture/urban interface issues. The position will support a vast floriculture and nursery industries as well as the diverse and expanding controlled environment production systems industry in San Diego County. The proposed position is a combination of engineering, plant science, and computer-managed technologies used to optimize plant growing systems, plant quality, high intensity production systems, and production efficiency in controlled environment (greenhouses, portable hoopouses, growth chambers, etc.). **(2)** A minimum of a Master's Degree is required in horticulture, botany, plant sciences, plant pathology, entomology, agronomy, or soil science; a background in environmental science, environmental engineering, or water resources as related to agricultural production or controlled growth environments is desirable and **(3)** The Production Horticulture Advisor will provide current and applicable information to San Diego clientele through consultations, meetings, newsletters, publications, workshops and other appropriate means. The advisor will identify and assess the needs and problems of the San Diego County clientele. S/he will participate in appropriate professional societies and organizations and in operational and organizational activities within the UCANR.

**Justification:** With \$1.75B in value, and representing 67% of the total agricultural production in the county, floral and nursery crop production is the most valuable agricultural activity in San Diego County and ranks first in the state and country in floriculture and nursery accounting for approximately 7,700 jobs. Nursery and floriculture products also represent 5 of the top 7 commodities in the county. Historically, production horticulture in this region includes floriculture, nursery, and specialty crops. Because of increasing land values and low availability of land and high water costs, there has been a trend toward intensively cultivated food crops grown in these highly managed systems, often with a smaller footprint and on marginal lands. The increasing demand for safer, locally grown food products using more resource efficient technologies and production systems are driving the growth of the industry. Many producers are diversifying into crop production including that of the organic market, and other profitable alternatives for local growers. The advisor will provide research and education in traditional areas of production of ornamental plants as well as edible crop production. Issues addressed will include innovations related to engineering and growing requirements to improve energy and water use efficiency and carbon neutrality. Where needed, the Advisor will address pest and diseases, new crops, and automation as well as worker safety issues related to production horticulture. Threats of invasive agricultural pests that often activate agricultural quarantines is a major concern statewide and in San Diego County because of potential impact on agricultural trade and the environment. The proposed position would be critical in developing programs to better help growers in production horticulture with best pest management practices.

**Extension:** The Advisor will develop and conduct an impactful extension program with commercial growers. This will be done through in field demonstrations and workshops, classroom style training, and online avenues including individual contacts and broader social media platforms. Interactive online training modules or apps will likely be developed as appropriate for the audience. Articles will be published in trade magazines for flower, nursery and greenhouse production of crops. Public service interactions will be done through community groups and through Master Gardeners for non-commercial gardening. The outputs from the Production Horticulture Advisor will be used to develop extension materials distributed through various

UCANR extension outlets. S/he will also serve as point of contact for local and statewide writers for publications.

**Research:** This position will partner with industry stakeholders to develop science-based solutions to sustainability issues and challenges for growing and harvesting a diverse range of vegetables, fruits, ornamental plants, and greenhouse and nursery crops. The advisor may strive to pull in technology companies, including drone applications, smart device irrigation, materials handling, biotech, and GPS based scouting tools. Research results will be published in outlets such as Journal Extension, Journal of Applied Horticulture, California Agriculture, HortScience, Horticultural Plant Journal, and other scholarly outlets.

**ANR Network:** The Advisor will utilize and contribute to the campus-county network collaborating with Water Resources, IPM, Small Farms, Master Gardeners, UC Nursery and Floricultural Alliance and Environmental Horticulture advisors and specialists. The Advisor will participate with respective advisory committees, task forces, program teams, and workgroups.

**Network External to ANR:** This position will be expected to collaborate with the California Association of Nurseries and Garden Centers, California Cut Flower Commission, San Diego Flower and Plant Association, San Diego and Riverside Farm Bureau, and San Diego and Riverside Agricultural Commissioners offices. This position may also be considered for participation on the CDFA Nursery Advisory Board.

**Support:** UCCE in San Diego County will provide office space, administrative support, office supplies, vehicle availability (from pool), IT, internet access and telephone.

**Other support:** The Advisor will be in a position to compete for UCANR, CDFA Specialty Crops, USDA/NIFA, National Science Foundation, and trade organization competitive grants. These trade organizations include CANGC (California Association of Nurseries and Garden Centers), Gloeckner Foundation, and HRI (Horticulture Research Institute), among others. S/he will also be able to work collaboratively with UCANR Development Services to identify and cultivate gift funding.

**Location:** San Diego has a good local network of CE Advisors and the office has space and resources to support the Production Horticulture Advisor. San Diego will also have an office in the north part of the county making it easier for the Advisor to develop new partnerships and deliver programs in the entire county.

**Developed and proposed by:** Laurent Ahiablame, San Diego County Director. The following stakeholders were involved in the development of this position: San Diego Ag. Commissioner Ha Dang; Growers Mike Mellano, Neil Nagata, Eric Larson; CE Advisors Cheryl Wilen, James Bethke; County Director Janet Hartin; and CE Specialists Lorence Oki and David Fujino.