

## **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 floriculture, nursery and controlled environment agriculture (CEA) with the goal of improving production and economic viability of these industries in San Diego County.

**Position:** The position is expected to address issues in production horticulture including floriculture and nursery crops in field grown and controlled environment conditions through applied research and extension education programs to disseminate information to the San Diego County clientele. Potential issues include pest management, invasive species, soil and fertility management, irrigation and water use and agriculture/urban interface issues. The position will support a vast floriculture and nursery industries as well as a diverse and expanding controlled environment industry in San Diego County. The proposed position requires the 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.). The Production Horticulture Advisor will provide current and applicable information to San Diego clientele through consultations, meetings, newsletters, publications, workshops and other appropriate means based on the assessment of the needs and problems impacting San Diego County clientele. S/he will participate in appropriate professional societies and organizations and in operational and organizational activities within the UCANR.

**Justification:** San Diego County agriculture has a value of \$1.78 billion and the floriculture and nursery industry represents 70% of this total with \$1.25 billion. Floriculture and nursery crop production is the most valuable agricultural activity in San Diego County and ranks first in the state and country 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 grown in open fields and low tech enclosures in coastal areas. However, increased land values, low availability of land, high water costs, limited labor supply and other issues have created a need for and a trend for more intensively managed production systems for floriculture, nursery and food crops grown in controlled environments, often with a smaller footprint and on marginal lands.

In addition, increasing demand for safer, locally grown food products using more resource efficient technologies and production systems are driving the growth of the CEA industry. Many producers are diversifying into food or new crop production including organic commodities, and other profitable alternatives for local growers. The advisor will provide research and education in traditional areas of production of floriculture and nursery crops as well as edible crop production, under field and controlled environment conditions. 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.

**Extension:** The Advisor will develop and conduct an impactful extension program with commercial ornamental plant growers and CEA producers (food and ornamentals) as well. 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 in-person, electronic, and hard-copy avenues and 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 crop production 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 Plant California Alliance (formally California Asso. of Nurseries and Garden Centers), California Cut Flower Commission, San Diego Flower and Plant Association, commodity boards, San Diego Farm Bureau, and San Diego Agricultural Commissioners offices.

**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 numerous grants including CDFG Specialty Crops, USDA/NIFA, National Science Foundation, and trade organization competitive grants. S/he will also be able to work collaboratively with UCANR Development Services to identify and cultivate gift funding.

**Location:** UCCE San Diego has the office space and resources to support the Production Horticulture Advisor. UCCE San Diego also has an office in the San Diego County Farm Bureau building located in the city of Escondido 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, Former 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 Specialist Lorence Oki and Dir. Cal. Center for Urban Horticulture David Fujino. Revised and updated by San Diego Staff and Cheryl Wilen, Interim CD San Diego