

2021 UC ANR CE Position Template (Advisor/Specialist)

Position Title: Area Environmental Horticulture Advisor (Tulare, Fresno, Madera, and Kings Counties)

Position Overview: The Environmental Horticulture Advisor will develop and extend research-based information on proper selection, placement, and care of trees and other landscape plants to mitigate impacts of climate change and enhance community health and quality of life in urban environments in Tulare, Fresno, Madera, and Kings Counties. A focus of the position is to identify drought, heat, pest and fire-resistant landscape plants suitable for residential, public and commercial environments that cool urban heat islands and bridge disparities in low-wealth, low tree canopy communities. Strategies that enhance habitat and pollinator populations; ecosystem biodiversity; abatement of air and water pollutants; carbon sequestration; erosion control; and other critical ecosystem services in urban environments are also a key focus.

Position Description: The Environmental Horticulture Advisor will develop and extend research-based information using a range of communication options to meet the needs of diverse audiences. The Advisor will develop and extend horticultural education to the “green industry” through direct education at seminars, workshops, and field days as well as through partnerships and collaborations with non-profit agencies and organizations. The Advisor will also provide oversight of the Master Gardener programs in Tulare, Fresno, Kings, and Counties and support the mission and goals of the statewide Master Gardener program. With over 1,200 Master Gardeners volunteers providing education and guidance to home gardeners in these counties, ensuring that accurate, objective information is provided through them to the gardening public is an essential role of this position.

The minimum of a Master’s degree in environmental, urban, or ornamental horticulture or a related field is required at the time of hire. Experience in the landscape or urban forestry industry developing multidisciplinary teams and programs that foster climate change mitigation through partnerships and collaborations is preferred. The successful candidate will align closely with a team of UC ANR Environmental Horticulture Advisors across the state as well as UC ANR statewide Specialists and allied department personnel throughout the UC and California State University systems.

Justification: This position is the #1 priority of the Environmental Horticulture Program Team and the four county CD in this region, filling it is critical for remedying the historical inequality in the distribution of environmental benefits that often result in low tree canopy coverage, hotter temperatures, and higher rates of ozone and other pollutants linked to greater incidences of chronic diseases in disadvantaged neighborhoods found within these specific counties. Due to climate change and urbanization, the rate, intensity, and duration of heatwaves in urbanized areas are increasing, as is the number of heat-related deaths. Members of underserved and disadvantaged communities are at high-risk of experiencing health-related consequences of climate change, further exacerbated by living in neighborhoods with low tree canopy cover and hotter conditions. Research and education provided through this position is aligned with the following public value statements:

- Protecting California’s natural resources
- Building climate-resilient communities and ecosystems
- Promoting healthy people and communities
- Developing a qualified workforce
- Developing an inclusive and equitable society

The position focus is relevant to all five ANR Strategic Initiatives (Endemic and Invasive Pests and Diseases; Sustainable Natural Ecosystems; Sustainable Food Systems; Healthy Families and Communities; and Water Quantity and Quality). Crucially, it impacts all urban Californians (95% of our population) by increasing the sustainability of our living urban environments and enhancing physical and mental health.

Extension: The Advisor will provide relevant and scientifically-supported information on selection, placement, and care of climate-adapted landscape plants that reduce the impacts of climate change while conserving water and enhancing other ecosystem services. Other focus areas include providing information on green waste management, use of recycled water for landscape irrigation, and reducing pollution resulting from overuse of pesticides and fertilizers. Training will be provided to the “green industry” (public and private urban foresters, landscapers, landscape architects, nursery growers, parks and recreation directors, etc.) at seminars, workshops, and field days as well as through partnerships and collaborations with planners, community development directors, and other personnel involved in urban planning and green infrastructures. Extensive efforts will be made to develop partnerships and extend information to and through landscape managers and community groups in neighborhoods, parks, schools, and green spaces with low tree canopy cover and higher density housing who often lack resources to hire outside experts to assist them.

The Advisor will provide critical information to inform policy makers (CA Water Control Board, local water districts, etc.) of how increasingly restrictive water use efficiency standards negatively impact urban tree health and reduce tree longevity. The advisor will form collaborations with policy makers and stakeholders to develop strategies that maintain the critical balance of water conservation and tree health.

The Advisor will provide oversight of the Master Gardener programs in Tulare, Fresno, Kings, and Counties and support the mission and goals of the statewide Master Gardener program. With over _____ Master Gardeners volunteers providing education and guidance to home gardeners in these counties, ensuring that accurate, objective information is provided to the gardening public through the Master Gardener volunteers is an essential role of this position.

Research: Key areas of research include identification of drought, heat, pest, and fire-resistant landscape plants; determining minimum irrigation needs of climatic-adapted landscape plants that conserve water while optimizing ecosystem services they provide; and, developing new technologies for green waste reduction, recycling, and management. Publication outlets include UC ANR publications, technical peer-reviewed journals such as Horticulture Science, HortTechnology, and industry publications such as Landscape Management.

ANR Network: Environmental Horticulture Program Team and associated workgroups, Climate Change Program Team, Water Program Team, California Communities Program Team, Pest Management Program Team.

Network External to ANR: Other University systems (Cal Poly and Cal State), state and local water districts and boards, resource conservation districts, city and county government personnel (planners, parks directors, urban foresters, landscape architects, community development directors), professional ‘green industry’ groups (CAPCA, PAPA, etc.) resource conservation districts, US Forest Service, and others involved in local and statewide urban greening and climate change mitigation efforts.

Support: Support for this position, including office space, travel, communication (telephone, internet) and clerical support is available from all four Counties. Start-up funds will be used to purchase a computer and about funding will be made available for research and program support from the previous Advisor’s various donor accounts.

Other support: The Advisor will compete for research and extension support funding from relevant commodity commissions, internal UC-ANR grant programs, and external funding agencies._

Headquarters and Coverage Area: This position will be headquartered at our UCCE Tulare County office located at 4437 S Laspina St, Tulare, CA 93274.

Developed and proposed by: Karmjot Randhawa, County Director UCCE Fresno, Madera, Tulare and Kings Counties with support from the Environmental Horticulture Program Team and associated workgroups.