

**Position Title: Vegetable Crop and Weed Science Advisor for Monterey, San Benito, and Santa Cruz Counties**

**Position Description:** The Vegetable Crop and Weed Science Farm Advisor will be expected to develop an effective research and extension program to support the vegetable industry on the Central Coast. The candidate is expected to have a minimum of a Master's degree in vegetable crop production, horticulture, weed science, agronomy, or other related fields at the time of appointment. The Advisor is also expected to have knowledge and experience in commercial crop production, applied research, and educational programming. The Advisor will be located in Monterey County and also serve San Benito and Santa Cruz counties and collaborate with other UC advisors and specialists broadening an excellent and productive interdisciplinary academic team in the tri-county area. The Advisor will administratively report to the tri-county Director for Monterey, San Benito, and Santa Cruz counties.

**Justification:** The central coast produces most of the salad vegetables consumed in the United States and is a major exporter of vegetable products to Mexico, Canada, Asia, and the Middle East. The total value of vegetables produced in Monterey, San Benito, and Santa Cruz counties was nearly \$3.5 billion in 2022. Organic production has steadily increased on the central coast with gross sales of more than \$1 billion in Monterey County alone in 2022. There are multiple issues that threaten the long-term sustainability of the vegetable industry on the central coast, including high labor costs, emergence of new diseases and insect pests, food safety risks, water scarcity and the impacts of nutrients and pesticides on water quality. Weed management is especially an issue on the central coast due to the low tolerance for weeds in vegetable fields, high cost of hand labor, diminishing chemical control options due to regulations, and the threat of potential and actual invasive weed species in range and wild lands. The vegetable crop advisor will be a keystone position to lead teams of ANR advisors and specialists to collaboratively develop research and outreach programs that address many of these issues. This position will also bring a skill set in weed and vegetation management to the region that will complement the expertise of advisors with appointments serving agriculture technology, range science, viticulture, strawberry, entomology, environmental horticulture, plant pathology, and small farm advisors.

**Research:** Research efforts will focus on vegetable production and weed management. Examples of needed research include: 1. Managing Impatiens Necrotic Spot Virus in lettuce through resistant varieties, control of western flower thrips, and winter weed management; 2. Evaluating best management practices to reduce nitrate impacts on ground and surface water; 3. Identifying practices and varieties that reduce cadmium uptake in spinach; and 4. Nutrient and weed management in organic vegetable systems. Publication of research results and knowledge is expected to include various UC ANR series, technical sheets, and peer-reviewed journals. Participation and collaboration are expected with UC ANR Program Teams, Specialists and others within the UC ANR network. This position would play a major role in UC ANR's vision of both Sustainable and Healthy Food Systems and Healthy Environments, focusing on the initiative Enhance Competitive, Sustainable Food Systems.

**Extension:** Outreach methods will include standard extension methods such as newsletter and trade journal articles, extension publications, and organizing and participating in educational trainings and seminars. In addition, an appropriate mix of contemporary and emerging electronic tools such as online learning, web content, blogs, social media, impact and evaluation tools, along with videos. Spanish language skills would be beneficial for working with clientele. Extensive collaboration internally with other ANR academics, and externally with other researchers, government agencies, and private industry is expected. The Advisor will serve as a resource in vegetable crop production and weed science for other ANR advisors and specialist, as well as consultants, pest control advisors, agricultural commissioners, government scientists, and regulatory personnel.

**ANR Network:** This position would greatly complement the current skill sets and expertise of advisors and specialists on the central coast by bringing extensive knowledge of vegetable production and weed science to the UC team. Potential collaborators at the UCCE Monterey office would be the agriculture technology, entomology, water resources and irrigation, plant pathology, and viticulture advisors. The expertise of the vegetable and weed science advisor can also support the programs of the strawberry and caneberry advisor in Santa Cruz County, the small farm advisor in Santa Clara County, and the range science advisor in San Benito County. The advisor would also likely be involved with collaborative projects with the UC organic farming specialist housed at UC Santa Cruz and the UC Davis weed specialist located at the USDA-ARS research station in Salinas, CA.

**Network External to ANR:** The UCCE team has developed strong collaborations and working relationships with farmers, Grower-Shippers Association of the Central Coast, commodity boards, USDA agencies (e.g, Agriculture Research Service, NRCS and FSA), Resource Conservation Districts, Agriculture and Land-Based Training Association, Agricultural Commissioners, Cal. State University Monterey Bay, Hartnell Community College, UC Santa Cruz, local Farm Bureaus, and non-profit organizations. This position would fit seamlessly into the established groups and organizations and has already received robust support from these organizations.

**Support:** Primary support will come from UCCE Monterey County, including office space, phone and internet access, and support for travel with the use of a county vehicle. Start-up support from UC ANR would assist with new technology purchases, as well as initial program development. Surrounding counties would provide reciprocal support with access to education venues, staff, and logistical support.

**Other Support:** There are ample opportunities for this position to be successful through in-kind support of local farmers and organizations. It would also be competitive in garnering funds through grower supported research organizations such as the California Leafy Greens Research Board, California Celery Research Board, California Garlic and Onion Research Advisory Board, and multiple state and federal funding mechanisms such as the California Specialty Crop Block Grants, and CDFA fertilizer research and education program. The Vegetable Program team and Statewide Specialist team have provided support for this position ranking this position as their number one priority for the region and was ranked as a number two priority by the Pest Management Program Team. Additionally, the regional CD team has provided full support for this advisor position.

**Location:** Monterey County. This location is ideal as the headquartered county; local support is strong given the significant numbers of vegetable crop growers. The surrounding counties have a significant number of these vegetable operations that will benefit from the cross-county assignments.

**Developed and Proposed By:** Tri-County Director David Gonzalves and Advisors Michael Cahn, Mark Bolda, and Larry Bettiga, as well as UCD Specialist Steven Fennimore, UCSC Specialist Joji Muramoto, and the Vegetable and Pest Management Program Teams.