UC ANR Adds Experts in Water, Wildfire, Pest Management and More

The nine recently hired UC Cooperative Extension specialists and advisors bring expertise in a variety of industries

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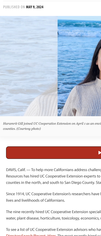

Sherwood Gill joined UC Cooperative Extension as April 1 as an environmental horticulture advisor for Tulare, Kings, Fresno and Madera counties. (Courtesy photo)

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(DAVIS, Calif.) – To help more Californians address challenging issues, University of California Agriculture and Natural Resources has hired UC Cooperative Extension experts to work in communities stretching from Humboldt and Siskiyou counties in the north, and south to San Diego County. State funding has enabled UC ANR to expand its expertise.

Since 1914, UC Cooperative Extension's researchers have been working directly with community members to improve the lives and livelihoods of Californians.

The staff are identifying landscape plants that are heat-tolerant, disease-resistant and fire-resistant. Gill will be researching California native plants with sustainable attributes that include superior adaptation, biodiversity enhancement, water efficiency and soil benefits benefits.

A native of Punjab, India, Gill earned her undergraduate degree in agriculture followed by a master's degree in horticulture at Punjab Agricultural University, where her research focused on micropropagation and haploid production in mushrooms. She earned a Ph.D. in horticulture from the Department of Horticulture at Iowa State University.

Her early research investigated the impact of nitrogen on spinach root architecture. Her doctoral work concentrated on tree rootstocks and deciphering the genetic underpinnings of flower color transition traits, fragrance and dwarfing in roses, with a particular focus on the intriguing phenomenon of flower color transformation from white to pink as flowers matured. She also collaborated on projects aimed at enhancing flower color and disease resistance in roses.

Gill is based at the UCCE office in Tulare and can be reached at hsingh@ucanr.edu.

Gill joins UCCE as environmental horticulture advisor

Hayward Gill joined UC Cooperative Extension as April 1 as an environmental horticulture advisor for Tulare, Kings, Fresno and Madera counties.

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Jordan joins UCCE as forestry and natural resources advisor

Christian Jordan joined UCCE on March 18 as a forestry and natural resources advisor for Shasta, Siskiyou and Trinity counties. He will work to advance forest resilience and sustainable management on private and public lands, with a focus on conifer forest resource management and sustainable wood products.

In 2020, Jordan completed a Master of Forestry at UC Berkeley, with an emphasis on forest resilience in the context of increasingly severe wildfires. Prior to joining UCCE, Jordan was a forester for private sector in defensible space and home hardening, installing residential exterior sprinkler systems for ember defense.

Jordan brings a diverse educational and work background to the position. In 2014, he earned a bachelor's degree in geography from UC Berkeley, writing a thesis on historical land use and structure in Napa and Sonoma counties. Upon graduating, he worked in the wine industry before returning to natural resources.

Jordan is based at the UCCE office in Redding and can be reached at cjordan@ucanr.edu.

Pastrana joins UCCE as plant pathology advisor

Ana Pastrana joined UCCE on Jan. 16 as a plant pathology advisor serving Imperial, Riverside and San Diego counties.

In her role, Pastrana will collaborate with pest control advisors and producers to address plant disease issues. In addition to identifying high priority concerns, she will conduct research and develop educational content that addresses growers' needs.

Before moving to Southern California, Pastrana worked as a research scientist on plant pathology at the University of Seville, Spain, and of Wineland Research and Innovation Center in Canada. Previously, she completed a postdoctoral appointment at the University of Florida's Gulf Coast Research and Education Center, where she specialized in soilborne diseases affecting strawberries and blueberries.

While attending the University of Seville, Pastrana earned master's and bachelor's degrees in biology. At Investigación y Formación Agraria, Pesquera, Alimentaria y de la Producción Ecológica, a government institution in Spain, she served a Ph.D. and completed her dissertation in olive tree diseases.

Yet that time, Europe banned methyl bromide and other disinfectants. Strawberries rely on these disinfectants so plenty of soilborne diseases impact them.

Originally from Seville, Spain, Pastrana said that her small hometown is surrounded by plum and citrus trees. Her mother, like many others, worked in the agricultural industry and Pastrana wondered how plant life works, inspiring her to study biology.

As a Ph.D. student, Pastrana didn't know she would pursue plant pathology specifically because she was open to studying diseases in general whether it be humans, animals or plants.

"Plant pathologists are like doctors. Not everyone is happy to work with us because it usually means that there is some sickness involved," said Pastrana. "But if growers work with pathologists from the beginning, we can focus on preventative care and helping to protect them from getting sick."

Pastrana is based at the UCCE office in Holtville and can be reached at anpastranabenz@ucanr.edu.

Mokwunye named area IPM entomology advisor

Idongesit Mokwunye joined UCCE on Jan. 3 as an area integrated pest management entomology advisor.

She will be studying insect pests of economic importance affecting tree fruit and nut crops, such as pistachio, almond, walnut, table grapes and stone fruit. Major pests include navel orangeworm, mealybug, Lygus/plant bugs, mites and scale insects.

Prior to joining UC ANR, Mokwunye worked as a nut crop entomologist at the Cocoa Research Institute of Nigeria for over 11 years and headed its Crop Protection Division.

"My journey into entomology as a career started when I was posted to the Cocoa Research Institute of Nigeria for the mandatory one-year National Youth Service Corp," Mokwunye said.

"It was really fascinating at the diversity and economic importance of the insect species (both beneficial and pests) on agricultural crops and natural landscapes generally," she said. "The hands-on lab experiments and field activities were exciting, engaging and inspiring. I was extremely involved in setting up cocoa collections, data entry and informal discussions on research projects. I was seeing the insect world in an entirely different perspective."

She already held a bachelor's degree in zoology from the University of Lagos, Nigeria.

"The then-head of the department observed my interest and encouraged me to get a master's degree," said Mokwunye, who then earned a master's degree in entomology from the University of Ibadan, Nigeria. "During the course of the second degree, I got a job in the same institute and today the rest is history."

Mokwunye holds a Ph.D. in entomology from the University of Agriculture Abeokuta, Nigeria. Her research interests include integrated pest management, chemical ecology, decision-support systems and insect taxonomy. She has worked on the population dynamics of the cashew stem girdler as it correlates with weather parameters, its damage potential, semiochemical interactions and chemical control of insect pests.

She has served as a resource person engaging stakeholders in outreach activities and facilitating training programs on good agricultural practices. In addition to publishing more than 10 research articles she is a fellow of the Cocoa Research Institute of Nigeria, a member of the Entomological Society of Nigeria, a member of the Nigerian Women in Agricultural Research and Development, Orange Knowledge Program of the Netherlands Government, and Scientific Exchanges Program of USDA-ARS.

"I am delighted to be here as a UC Cooperative Extension advisor and I hope to bring my expertise and experience in pest management to bear," she said. "I look forward to the synergies and engage meaningfully with my clientele in order to understand their needs, priorities and perspectives regarding pest management issues."

Mokwunye said she'll work diligently collaborating with UC colleagues and other partners to conduct demand-driven, applied research and innovative extension programs to address current and emerging pest issues. "Generally, I want to play my part towards achieving healthy food systems, environments, communities and Californians," she added.

Mokwunye is based at Kearney Research and Extension Center and can be reached at (559) 807-0257 and mokwunye@ucanr.edu.

UCCE water advisor Garza hopes to foster 'spirit of shared responsibility'

Laura Elva Garza Diaz joined UC ANR on Jan. 3 as the UC Cooperative Extension water quality, quantity and climate change advisor for Lake and Mendocino counties, focusing on how intensified droughts, floods, wildfires and other climate impacts affect water supply and quality.

She aims to address Sustainable Groundwater Management Act requirements and enhance local water resilience in collaboration with farmers and natural resource managers, local government water agencies, water districts and other key stakeholders.

In addition to guiding policymakers in creating comprehensive water-resiliency plans covering development, storage, alternative sources and conservation, Garza – who is fluent in Spanish – will also engage directly with diverse groups of communities.

"It is urgent to empower local stakeholders by providing them with the knowledge and tools needed to navigate the complex landscape of water quality, quantity and climate change," she explained. "The goal is to foster a spirit of shared water responsibility, and ensure that water management practices consider the needs of, for a vibrant and inclusive environment for everyone."

Originally from Monterrey, Mexico ("the city of the mountains," as she puts it), Garza earned her bachelor's degree from Tecnológico de Monterrey. After completing an Erasmus Mundus joint master's degree program in applied ecology, Garza worked as a specialist with the World Wildlife Fund in Latin America and the Caribbean.

While pursuing her Ph.D. at UC Davis, she served as a scientific advisor for Pronatura Noreste, an environmental protection organization, and started the Women in Science Interview Series at the Permanent Forum of Binational Waters, where she volunteered for 5 ½ years as an initiative to interview women who have made a difference in the Rio Grande/Río Bravo Basin.

After obtaining her Ph.D. in hydrologic sciences from UC Davis, Garza worked as a project manager for the Washington Water Trust in Washington.

At every step of her journey, Garza has been motivated by a deep passion for safeguarding water resources and fostering resilient ecosystems and communities.

"I find inspiration in the intersection of science, community engagement and sustainable water management," she said. "The opportunity to contribute to the well-being of local communities and the environment drives my commitment to addressing water challenges in a changing climate."

Based at the UCCE office in Ukiah, Garza can be reached at legarza@ucanr.edu and (707) 463-4495.

Agyeman joins UCCE as economics advisor for Butte, Glenn and Tehama counties

Dominia Agyeman joined UCCE Jan. 3 as an agriculture and natural resources economics advisor for Butte, Glenn and Tehama counties.

Prior to joining UC ANR, he was a postdoctoral associate at the Virginia Seafood Agricultural Research and Extension Center at Virginia Tech University.

As a UCCE advisor, Agyeman will provide insights that ensure economic profitability of all agriculture activities, including orchards, rice, forestry and other natural resources based businesses in those counties. He will also promote broadband access and contribute to regional economic development.

"I am excited to leverage my expertise to highlight the economic contributions and impacts of the agriculture and natural resources industries in Butte, Glenn and Tehama counties," Agyeman said, "and to work alongside producers and other stakeholders in the region with research-based information that will help them navigate their business challenges and opportunities."

His research interests encompass natural resources and environmental policy impact assessments, economic contributions and impacts analyses, production decision-making assessments, and consumer preferences for agricultural products.

"To get started, I will be developing a needs assessment, focus group meetings and a survey of my region," he said.

Agyeman earned a Ph.D. in agricultural economics from the University of Kentucky, a master's degree in agricultural economics from Mississippi State University and his bachelor's degree in agricultural science from University of Cape Coast in Ghana.

Agyeman is based at the UCCE office in Oroville and can be reached at dagyeman@ucanr.edu.

Marsh named rice advisor for Colusa and Yolo counties

Sarah Marsh joined UCCE on Jan. 3 as a rice farming systems advisor serving Colusa and Yolo counties.

Prior to joining UCCE, she worked in rice breeding research and interpretive pest management with several rice crops in the Upper Gulf Coast region.

She earned a master's degree in horticulture and agronomy at UC Davis, where she worked with Kassim Al-Khatib, professor of plant sciences, studying weeds and herbicide resistance in rice agroecosystems. She holds a bachelor's degree in plant and environmental sciences from Texas A&M University.

"I grow up on a diversified row crop and orchard farm in Arbuckle and am grateful for the opportunity to serve the community in which I was raised," Marsh said. "I hope to spend the first few months getting to know the growers and community of this region and learning what the unique needs of our area are."

Marsh is based at the UCCE office in Colusa and can be reached at smarsh@ucanr.edu and (530) 415-7052.

Woelfle-Hazard joins UCCE Humboldt-Del Norte as fire advisor

Cleo Woelfle-Hazard joined UCCE on Jan. 3 as a fire advisor for Humboldt and Del Norte counties. He will support residents, forestland managers and agricultural producers in the Redwood Region as they prepare for, respond to and recover from wildfires in the face of intensifying wildfires.

His research and extension projects focus on climate resilience, cultural burning, fire water interactions and training a diverse fire workforce.

Woelfle-Hazard collaborates on research with Native nations, agencies and local community members. In collaboration with the Karuk Department of Natural Resources, he is exploring fuzzy fire scenarios in the Klamath Basin and how ambiguity could change fuel and fire management. He also explores how fire and flooding are reviewed to revitalize habitat for ecocultural species such as willow, grape, salmon, elk and eel.

His past projects have included community-driven research with frontline communities in Seattle, the Yukon-Kuskokwim Delta and Sonoma County. Using his expertise in home water and wastewater systems, he evaluated the health and economic aspects of water delivery in Oakland and Hubb Oriented, India.

As a co-investigator on the Humanities Education for Anti-Racism Literacy project, Woelfle-Hazard collaborated on creating pathways to higher education for Native youth, and for training students to engage in respectful collaborations with Native partners.

He earned a master's degree and Ph.D. in energy and resources at UC Berkeley, where he convened scientists and Sonoma County residents to experiment with capturing winter rain to increase summer streamflow to benefit juvenile salmon, and exploring the possibilities of partnering with tweens to create cost-refugia for coho. He also holds a bachelor's degree in interdisciplinary geosciences from the University of Montana.

Woelfle-Hazard is based in Eureka and can be reached at cwhazard@ucanr.edu.

Jegede joins UCCE as agricultural toxicology specialist

Oluwatoyin "Kayode" Jegede joined UC ANR on Jan. 2 as an assistant professor of Cooperative Extension for agricultural toxicology with the Department of Molecular Biosciences, School of Veterinary Medicine and Department of Entomology and Nematology, College of Agricultural and Environmental Sciences at UC Davis.

Jegede will be studying contaminants of agricultural importance in California, such as pesticides, metals, microplastics, veterinary pharmaceuticals, PFAS, fertilizers and their effects on humans, animals (including aquaculture) and environmental health of ag and plants.

"I will also be looking at various exposure pathways of these contaminants and interactions through food, water, soil and how climate change or other environmental change events can influence toxicity of these contaminants and mitigation strategies," Jegede said. "My research will also have a One Health" perspective to it."

Prior to moving to California, Jegede was a postdoctoral research associate in the Department of Soil Science, University of Wisconsin-Madison, and a visiting scholar with the Wageningen University and Research in the Netherlands to work on a research award focused on terrestrial ecotoxicology.

His past research has examined the effects of metals, pesticides and mixture toxicity on soil biota (mites, springtails, snails, earthworms) and soil enzymes; related ecosystem service function and processes; and generating data for environmental risk assessment of metals and pesticides.

"I look forward to helping solve toxicology issues in California through research, advising on and promoting good health for everyone and everything connected to small and large scale agriculture in California," Jegede said.

He earned his Ph.D. in toxicology at the University of Saskatchewan in Canada and bachelor's and master's degree in zoology at the Obafemi Awolowo University in Nigeria.

Jegede is based at UC Davis and can be reached at olujegede@ucdavis.edu.

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DAVIS, Calif. – Expanding its expertise in water, soil, pest management, farming and small farms, five new academics and a county director have joined the ranks of UC Cooperative Extension. Kim Ingram, a Fresno County-based vegetable crop advisor, coordinates UC Cooperative Extension Central Series – Amador, Calaveras, Tuolumne and El Dorado counties in November 2019. Kim Ingram was named […]

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