

Research Specialist in Agricultural Water and Nutrient Management with the California Institute for Water Resources

Research Specialist Series-Represented (non-CE Specialist, Assistant/Associate)

Position Overview

Location: UC ANR Oakland Office, Oakland, CA

The University of California Division of Agriculture and Natural Resources (UC ANR) offers a unique recruitment opportunity for a **non-CE Specialist (“Specialist”) with the California Institute for Water Resources (CIWR)** to support research on agricultural water and nutrient management in CIWR for the Nitrogen and Irrigation Initiative. UC ANR coordinates a statewide network of researchers and educators in partnership with Counties that are dedicated to the development and application of knowledge to address local agricultural, environmental, youth, and health issues. Over 200 UC ANR UCCE academics conduct research, outreach and education from locally based Cooperative Extension offices in over 70 locations. Our mission is to bring the University of California directly to Californians through research, extension, and education programs that support:



- Sustainable, safe, and nutritious food production and delivery
- Economic success in a global economy
- A sustainable, healthy, and productive environment
- Science literacy and youth development

By working and living among those we serve, UC ANR expands the University of California’s reach to engage all people and communities in California, ensuring equal access to the UC system.

Introduction:

The California Institute for Water Resources (CIWR) is a statewide program located within UC ANR. CIWR is based in Davis, CA, and has staff throughout the state of California. CIWR conducts research on sustainable water resources management for urban, environmental, and agricultural systems. CIWR is a member of the National Institutes for Water Resources and serves as a hub of water research in California. CIWR supports water research projects throughout the state, conducts research on urban and water resources management, runs extension programs to improve water and agricultural practices, and supports public education and outreach through a strong online presence.

Purpose:

The non-CE Specialist within the California Institute for Water Resources will conduct research on nitrogen and irrigation as part of a broader project to increase adoption of improved agricultural practices for nitrogen management in the San Joaquin Valley and Central Coast. The non-CE Specialist will complement existing expertise of the team by using empirical analysis and modeling approaches to understand relationships between agricultural production decisions, irrigation practices, geography and climate, and estimated nitrogen loading. The non-CE Specialist will work with the project team to:

- Identify one or more case study areas to evaluate nitrogen management in relation to cropping decisions, behavior, and environmental variables,
- Identify and assemble data from multiple sources that may include: land use, surveys of crops and agricultural practices, imagery, GIS datasets (shape files or rasters), regulatory reports, and literature for current and historical irrigation and fertilizing practices,
- Evaluate likely areas of high nitrogen loading to groundwater and local water basins considering data from state regulatory programs and land use,
- Identify empirical analysis and modeling approaches to correlate agricultural production and nitrogen management practices with risk of nitrogen loading and contamination,
- Develop and implement spatial and statistical analysis and modeling that can identify prioritized areas for implementing nitrogen management practices, which compliments on-going outreach efforts by the project team to conduct and evaluate program impacts through education and training.

Major Duties and Responsibilities:

Research (70%):

- Conduct research including developing research methods and protocols, providing research oversight, and independently conducting research.
- Make decisions about prioritizing research methods based on project goals.
- Coordinate procedures with the CIWR Director and project team
- Provide recommendations for future database structures, metadata requirements, and future data collection needs.

Data Collection, Management, and Analysis (30%):

- Coordinate data collection and ensure quality and accuracy of data.
- Conduct statistical analyses of datasets and prepare summary statistics, tables and graphs.
- Develop local and cloud-based metadata structures to support databases for maintaining attribute information.
- Compile and integrate information from diverse data sources for queries and analysis.

Reporting Relationship: The Specialist will report to the Director for the California Institute of Water Resources.

Qualifications and Skills Required

Required Qualifications:

Education: A minimum of a master's degree with coursework in economics, public policy, or a related field, and one year of related experience through one or more previous positions, utilizing the techniques or methods required by the position and demonstrating technical expertise in these areas; or an equivalent combination of education and experience is required at time of appointment.

Additional Requirements

- Familiarity with water management principles and methods
- Experience with data collection and analysis.
- Strong quantitative skills and experience in data collection, statistical analysis and modeling, and GIS.
- Proficiency in Microsoft Office applications, including Microsoft Excel.
- Ability to work independently and seek guidance when needed.
- Excellent verbal, written, and interpersonal communication skills and presentation skills.
- Experience working in an agricultural setting or directly working with farmers.
- Excellent time management and organizational skills to manage multiple projects simultaneously.
- Ability and means to travel on a flexible schedule as needed, proof of liability and property damage insurance on vehicle used is required. Must possess valid California Driver's License to drive a County or University Vehicle.
- This is not a remote position. The candidate must be available to work onsite. In accordance with [UC ANR Flexible Work Guidelines](#) flexible work agreements are available upon approval by supervisors and periodic re-evaluation.

Desired Experience

- Proficiency in one or more software development environments such as R, Python, or Julia.
- Demonstrated ability to independently utilize scientific literature, online databases, and other relevant resources to apply to research projects and design of experiments.
- Prior experience in applied research for water and agricultural management
- Familiarity with nutrient management for agricultural production

Skills Required: To be successful, the Specialist requires skills in the following:

Technical Competence and Impact

- Interact with collaborating researchers to achieve project objectives.
- Collect and analyze data for agency reporting and publications. Participate in extension education and outreach activities.

Communication

- Demonstrated excellence in written, oral, interpersonal and information technology communication skills.
- Skills to communicate and extend technical information to diverse audiences are required.
- Participation in professional societies and conferences and ability to give presentations at seminars and continuing education functions.

Collaboration, Teamwork and Flexibility

- Demonstrated ability to work collaboratively as a team member with others.
- Able to adapt as circumstances warranted.
- Promote diversity, equity and inclusion.

Lifelong Learning

Demonstrated commitment to ongoing self-improvement.

About UC ANR

The University of California, Division of Agriculture and Natural Resources (UC ANR) consists of a network of scientists and educators working in partnership across the state of California. We are committed to developing and supporting healthy food systems, healthy environments, healthy communities, and healthy Californians. UC ANR administers Statewide Programs and Initiatives (SWP/I's) that focus research and extension on solving priority problems that engage ANR academics and UC faculty in integrated teams to work on complex issues

requiring trans-disciplinary approaches; as well as UC Cooperative Extension (UCCE), which is responsible for program development and delivery in counties throughout the state.

Learn more about

- UC ANR at <https://UCANR.edu>
- California Institute for Water Resources: <https://ciwr.ucanr.edu/>
- Our Strategic Initiatives <http://ucanr.edu/sites/StrategicInitiatives/>
- Our Public Value statements at: https://ucanr.edu/sites/anrstaff/Divisionwide_Planning/UC_ANR_Public_Values/
- DEI: Further to the above, academics are expected to share and exhibit UC ANR's commitment to Diversity, Equity and Inclusion [https://ucanr.edu/sites/Professional_Development/Office - Team Management/Diversity Equity Inclusion Belonging/](https://ucanr.edu/sites/Professional_Development/Office_-_Team_Management/Diversity_Equity_Inclusion_Belonging/)
- Affirmative Action: Further to the above, all UC ANR academics are expected to share and exhibit UC ANR's commitment to affirmative action. Learn more of UC ANR Affirmative Action policy: http://ucanr.edu/sites/anrstaff/Diversity/Affirmative_Action/
- The University of California Agriculture and Natural Resources is committed to attracting and retaining a diverse workforce and will honor your experiences, perspectives and unique identity. We encourage applications from members of historically underrepresented racial/ethnic groups, women, individuals with disabilities, veterans, LGBTQ+ community members, and others who demonstrate the ability to help us create and maintain working and learning environments that are inclusive, equitable and welcoming.

Salary & Benefits

SALARY: The salary will be in the Specialist series from Assistant Step 1- \$59,200 up to Associate Step 4- \$82,100 annually of the Represented Specialist Fiscal Year Salary Scale Table. The rank and step placement in this series commensurate with experience and professional qualifications/education. For information regarding the Specialist salary scales, please refer to <https://www.ucop.edu/academic-personnel-programs/files/2023-24/july-2023-acad-salary-scales/t24-b.pdf>

This appointment is a limited term appointment with a merit cycle every two years. The performance in the position will be evaluated annually. The position will be extended based on the continued need for the position, performance and availability of funding.

Benefits: The University of California offers comprehensive benefits including health insurance, retirement plans, two days per month paid vacation, one day per month paid sick leave, and approximately thirteen paid holidays per year. For more information, refer to the UC Benefits website at: <https://ucnet.universityofcalifornia.edu/compensation-and-benefits/index.html>

How to Apply

If interested in this position, please visit: <https://recruit.ucanr.edu/> and choose "applicants" (refer to position #24-05)

Closing Date: To assure full consideration, application packets must be received by **May 28, 2024** (open until filled).

Questions?

Contact Tatiana Avoce (tavoce@ucanr.edu) for any recruitment questions.

Applicants may wish to explore the UC Davis Services for International Students and Scholars web page at <https://siss.ucdavis.edu> and the [UC ANR Green Card Sponsorship Guidelines & FAQ's](#) for reference.

University of California Cooperative Extension

As a University employee, you will be required to comply with all applicable University policies and/or collective bargaining agreements, as may be amended from time to time. Federal, state, or local government directives may impose additional requirements.

The University of California is an Equal Opportunity/Affirmative Action Employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age, protected veteran status or other protected categories covered by the UC nondiscrimination policy.

As of January 1, 2014, ANR is a smoke- and tobacco-free environment in which smoking, the use of smokeless tobacco products, and the use of unregulated nicotine products (e-cigarettes), is strictly prohibited.