

# Postdoctoral Scholar in Spray Application Engineering

BIOLOGICAL & AG ENGINEERING / Agricultural and Environmental Sciences / UC Davis

## POSITION DESCRIPTION

We are seeking a highly motivated scholar to develop a large dataset on orchard airblast/air-assisted sprayers, specialty fruit and nut tree and vine crop canopy characteristics, and environmental conditions. The candidate will be involved with projects on spray deposition and drift data collection, modeling, and simulation to develop decision support tools (i.e., mobile and web apps) for pesticide applicators and regulators. The position is available initially for one year with the possibility of 1-2 years extension.

### Major Responsibilities

#### *90% Research*

- Conduct applied research in spray application engineering.
- Collect field data from sprayers and crop canopies while monitoring environmental conditions, using appropriate instrumentation and/or sensors. Build and validate models with spray deposition and drift data for input into existing or new spray decision support applications.
- Develop spray application best practices to improve agricultural productivity and environmental sustainability.
- Develop and pursue new research directions related to spray application engineering.
- Coordinate project group meetings with stakeholders from government, academic, extension, agricultural, tech, and private sectors.
- Prepare manuscripts for publication.
- Present results at conferences and publish results in peer-reviewed journals.

#### *10% Extension, Mentorship, and Outreach*

### Additional Details

The candidate will have the opportunity to collaborate/interact with Department of Biological & Agricultural Engineering faculty, UC Cooperative Extension specialists and advisors, and others across UC Division of Agriculture and Natural Resources, local partners within the agricultural industry, as well as state and federal regulatory agencies.

The candidate will be based at the Agricultural Application Engineering Laboratory, Kearney Agricultural Research and Extension Center, Parlier, CA. This position's direct supervisor will be Dr. Peter Ako Larbi ([palarbi@ucanr.edu](mailto:palarbi@ucanr.edu)). Mentorship will focus on supporting the pursuit of the candidate's professional development goals.

*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 or protected veteran status. For the complete University of California nondiscrimination and affirmative action policy see: [<http://policy.ucop.edu/doc/4000376/NondiscrimAffirmAct>]*

## QUALIFICATIONS

### Basic qualifications (required at time of start)

- Ph.D. in Engineering or Computer Science, or a related field (not past one year after PhD graduation)
- Experience in designing and performing field and lab-based experiments
- Potential to write grants and publish research
- Excellent communication, multitasking, and teamwork skills

**Preferred qualifications**

- Proficiency in modeling, statistics, data analysis and interpretation
- Proficiency with MATLAB or other programming languages
- Proficiency with mobile and web apps development

**SALARY**

Starting at \$54,540 commensurate with qualification and experience.

**HOW TO APPLY**

Interested qualified candidates should submit a Cover Letter, a copy of their most recent Curriculum Vitae, and 3 References (contact information only) via email to Dr. Peter Ako Larbi ([palarbi@ucanr.edu](mailto:palarbi@ucanr.edu)).