

Post-Doctoral Research Assistant/Associate: Knowledge Synthesis/Meta-analysis

The Department of Agronomy at Purdue University is seeking a highly motivated Postdoctoral Researcher to join our innovative research team. This position offers an in-depth training opportunity for an individual with a recent Ph.D. to develop and apply advanced knowledge synthesis and meta-analysis methods to soil fertility/plant nutrition including environmental impacts. The successful candidate will work under the general direction of **Dr. Sylvie Brouder** and **Dr. Jeffrey Volenec** and collaborate with a diverse group of researchers to produce high-impact publications and contribute to the frontiers of knowledge in this field. This position currently has funding through June 30, 2026, and is available immediately. Additional funding is being sought.

Key Responsibilities

1. **Conduct Research:** Lead and collaborate on systematic reviews and meta-analyses, from formulating research questions using frameworks like PICO to interpreting findings.
2. **Methodology & Data Analysis:** Design and execute comprehensive literature searches across multiple databases (e.g., PubMed, Scopus, Web of Science) and manage large datasets. Analyze data using appropriate statistical software (e.g., R), addressing study heterogeneity and potential biases.
3. **Publication and Dissemination:** Lead the writing and publication of research papers in high-impact academic journals. Present research findings at national and international conferences and workshops.
4. **Mentorship and Collaboration:** Mentor and train junior researchers, including graduate and undergraduate students, in knowledge synthesis methodologies. Collaborate with internal and external partners in academia and industry.
5. **Professional Development:** Take ownership of professional development by seeking out relevant training opportunities and actively building a professional network.

Essential Qualifications and Skills

1. **Education:** A Ph.D. or equivalent doctoral degree in agronomy, soil science, environmental science or related field.
2. **Research Experience:** Proven experience in conducting research, including data collection, management, and analysis. Specific experience with systematic review and meta-analysis methodologies is helpful but not essential.
3. **Technical Skills:** Familiarity and proficiency with statistical analysis software (e.g., R) and reference management software.
4. **Communication:** Excellent written and verbal communication skills, with a strong record of published research in academic journals.
5. **Independence & Teamwork:** Ability to work independently, demonstrate research initiative and creativity, while also integrating effectively into a collaborative research group.
6. **Organizational Skills:** Strong time management and organizational skills, with the ability to manage multiple projects simultaneously.

Application Process

Interested candidates should submit:

1. A cover letter detailing their interest in this specific project and how their skills align with the requirements.
2. A current CV, including a list of publications.
3. A research statement outlining past accomplishments and future research interests in the area of knowledge synthesis and meta-analysis.
4. Contact information for three academic references.

Salary will be commensurate with experience. Position is available immediately.

For additional information please contact Dr. Sylvie Brouder (sbrouder@purdue.edu) or Dr. Jeff Volenec (jvolenec@purdue.edu).