



**ECOSYSTEM SCIENCE
AND SUSTAINABILITY**
COLORADO STATE UNIVERSITY



SOIL AND CROP SCIENCES
COLORADO STATE UNIVERSITY

PhD Researcher – Agriculture and Climate Change
Start date: Summer or Fall 2025

The [Agricultural Sustainability and Climate Impacts \(ASCI\) Lab](#) at Colorado State University is seeking a motivated PhD student to conduct research on the interactions between agriculture and climate change. This will begin in summer or fall 2025.

The ASCI Lab conducts research on a wide range of topics related to agricultural sustainability, climate change impacts, and climate change adaptation using spatial data science. Current projects include examining the sustainability of irrigated agriculture, modeling agricultural greenhouse gas emissions, using innovative statistical and machine learning methods to quantify climate hazards, and understanding the influence of agricultural land use change on climate.

The selected PhD student will work with Dr. Nathan Mueller to develop their PhD research project on adaptive crop migration, land use change, and climate feedbacks. The student will leverage machine learning methods and work collaboratively with researchers in the AI-CLIMATE Institute at Colorado State University, the University of Minnesota, and Cornell University.

Funding: The PhD position will be funded by a Graduate Research Assistantship during the first three years and a Graduate Teaching Assistantship (GTA) during the fourth year (note: GTA positions are only available if enrolled in the Ecosystem Sustainability PhD program). As a GTA, the student will be responsible for working 20 hours/week during the Fall and Spring semesters as a teaching assistant for assigned courses (to be determined) in CSU's Department of Ecosystem Science and Sustainability.

Required Qualifications:

- An undergraduate degree in a relevant agriculture or environmental science discipline.
- Strong interests in agricultural sustainability and climate change.

Preferred Qualifications:

- Prior research experience in agricultural science, environmental science, climate science, or a closely related field, particularly related to cropland migration / cropping pattern shifts.
- Familiarity and experience with scientific coding (i.e., R, Python, MATLAB, etc.).
- Strong quantitative skills, including coursework or experience with statistical analyses.
- Excellent written and verbal communication skills.
- Excellent academic performance.
- Ability to work collaboratively in a multidisciplinary team environment.

Graduate Programs: The ASCI Lab is part of the [Department of Ecosystem Science and Sustainability](#) and the [Department of Soil and Crop Sciences](#). Applicants can select the graduate degree program from either department, but TA positions are only available to students in the Ecosystem Sustainability Degree Program:

- [PhD in Ecosystem Sustainability](#)
- [PhD in Soil and Crop Sciences](#)

To apply: Interested applicants should formally apply through the [CSU Graduate School](#). Applications will be considered on a rolling basis until the position is filled.

Contact Information:

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