PhD Graduate Assistantship in Climate-Smart Dairy Crop Systems at The Pennsylvania State University, University Park, PA 16802

Doctoral graduate assistantships are available at Penn State University to assess crop, soil, and systems management practices to reduce total greenhouse gas emissions from dairy production systems. The students will be part of a cohort of nine graduate students, five of which will work in soil, plant, and atmospheric processes. Students can start in the Fall 2024 or Spring 2024 semesters. Graduate assistants will participate in identifying cost-effective climate-smart dairy feed production practices for a range of Pennsylvania dairy farms that differ in size, crop and feed management systems. Research will include evaluating the impacts of dairy manure, fertilizer, and crop residue management on nitrous-oxide and methane emissions as well as crop productivity on commercial dairy farms. Graduate assistants can investigate the mechanisms underpinning the controls of GHG emissions, and evaluate and further develop agroecosystem simulation models to identify climate-smart agriculture dairy crop production and feeding strategies. Graduate candidates with a MS degree in agronomy, soil science, crop science, agroecology, agricultural engineering, ecology, or a related field are encouraged to apply to the PhD program in Agricultural and Environmental Plant Sciences in the Department of Plant Sciences (<https://bulletins.psu.edu/graduate/programs/majors/agricultural-environmental-plant-science/#text>). Depending on student interests, primary faculty supervisors who can be contacted with questions include: Dr. Heather Karsten, [hdk3@psu.edu](mailto:hdk3@psu.edu) or Dr. Armen Kemanian, [kxa15@psu.edu](mailto:kxa15@psu.edu) in the Penn State Department of Plant Sciences <https://plantscience.psu.edu/>.