

New Cornell faculty



LOUIS LONGCHAMPS

Assistant Professor, School of Integrative Plant Science Soil and Crop Sciences Section

Louis Longchamps (ll928@cornell.edu) is an Assistant Professor of Digital Agronomy in the School of Integrative Plant Sciences' Soil & Crop Sciences Section.

Longchamps previously worked for Agriculture and Agri-Food Canada, where his research focused on the optimization of nitrogen management using remote sensing, and reduction in nitrous oxide emissions by variable rate nitrogen management. He was also co-leader of a Living Laboratory co-creating solutions with farmers to reduce the environmental impacts of agriculture on the St. Lawrence River's ecosystems.

He earned his Ph.D. at Laval University where his thesis research focused on "Spatial structure of weed populations in corn fields and measure of the potential for site-specific weed management." He followed that with postdoctoral work in the Department of Soil and Crop Sciences at Colorado State University.

His research involves the development of precision agriculture using soil and crop sensing to improve input use efficiency in field crops. He is also conducting interviews and surveys to assess the current state of on-farm experimentation in New York, as well as the needs in terms of digital technologies to enhance profitability and environmental stewardship.



VIRGINIA MOORE

Assistant Professor, School of Integrative Plant Science Plant Breeding and Genetics Section

Virginia Moore (vm377@cornell.edu) is an Assistant Professor in the School of Integrative Plant Science Plant Breeding and Genetics Section.

Moore comes to SIPS from the USDA Sustainable Agricultural Systems Lab where she was a NIFA-AFRI postdoctoral fellow and a project manager for the Cover Crop Breeding (CCB) network. She earned her Ph.D. in Plant Breeding & Plant Genetics from the University of Wisconsin in Madison.

Her research program at Cornell will focus on plant breeding for sustainable cropping systems. She takes multiple approaches, including breeding for organic systems, for intercropping and polyculture systems, for pest resistance, and for ecosystem services. She works in a range of species, including cover crops, perennial forages, bioenergy crops, and hemp.

Moore started her career in agriculture as a farm apprentice and worked on both vegetable and dairy farms, and she became interested in the technical hurdles limiting farmer adoption of sustainable practices. She studied these issues from a social science perspective, but she was increasingly drawn to plant breeding as a way to provide tangible solutions to sustainability challenges. Her main interest as a researcher is to develop plant varieties and plant breeding approaches that improve the feasibility for farmers to adopt sustainable practices, including planting more perennials and cover crops, increasing diversity in their rotations, and reducing tillage and pesticide inputs. ■