Biotic and Abiotic Controls on Soil Organic Carbon

Department of Soil Science, College of Agriculture and Bioresources, University of Saskatchewan

Overall

The Applied Pedology Laboratory at the University of Saskatchewan, led by Dr. Angela Bedard-Haughn, is looking to recruit a PhD student to investigate Biotic and Abiotic Controls on Soil Organic Carbon (SOC).

Nature of Work

You will be part of an industry-funded project that will enhance the availability of soil information for Saskatchewan, key for making land management decisions and assessing soil health. Your portion of the project will be responsible for completing an analysis using this enhanced soil dataset, along with complementary data sources from long-term studies, to investigate relationships between biotic and abiotic factors and dynamic soil processes in Saskatchewan agricultural systems.

This work will primarily involve identifying and utilizing the appropriate advanced statistical procedures on existing data sets, focusing on how SOC cycling and sequestration potential are affected by soil management practices, cropping systems, soil type, and environmental change.

Qualifications

- A Master's degree in soil science, plant science, agronomy or a related discipline.
- Prior experience with R

Skills

- Understanding of soil organic carbon dynamics
- Experience with multivariate statistical analysis in R
- Experience with remote sensing data analysis would be an asset

To Apply:

- Send a resume, cover letter, transcripts (unofficial transcripts are acceptable at this stage), and the names of two references to Dr. Preston Sorenson (preston.sorenson@usask.ca).