



Agriculture and  
Agri-Food Canada

Agriculture et  
Agroalimentaire Canada

Canada



UNIVERSITY OF ALBERTA  
DEPARTMENT OF  
RENEWABLE RESOURCES

## Soil Health and Crop Rotation Effects - Graduate Student Position

**Potential start dates: April 2019.**

**A PhD graduate student position available. Highly qualified candidates are encouraged to inquire about this PhD position.**

**Working directly with Dr. Frank Larney, Soil Scientist, based in Lethbridge Research and Development Centre, Agriculture and Agri-Food Canada, and with co-supervision by Dr. Guillermo Hernandez, Associate Professor, and registered as a PhD student at University of Alberta, Department of Renewable Resources.**

This research project is evaluating contrasting cropping systems across major Canadian Prairie ecosites to determine impacts on system resiliency and soil health. The objective of the study encompasses the determination of the best (more productive, sustainable, resilient) cropping systems for soil health in each of the ecozones within the Canadian Prairie using a wide array of contemporary crop rotation sequencing. Project activities include field sampling, laboratory procedures (e.g., tensiometry, fractal aggregation, organic matter fractionation), data analyses of soil quality attributes and manuscript writing. Support and guidance in developing an impactful research project will be provided. No experience necessary, however, knowledge and interest in soils, sustainability and resilience of agroecosystems are valuable assets.

The successful candidate will spend most of the research program tenure working at the Lethbridge Research and Development Centre, AAFC, and will complete his/her coursework requirements at UAlberta in Edmonton as part of the degree program. The successful candidate will have the great opportunity to work with a diverse group of researchers across scientific disciplines at both prestigious institutions.

Apply with CV, scanned copies of transcripts and a brief letter introducing yourself and your research interests to:

Frank Larney, [francis.larney@canada.ca](mailto:francis.larney@canada.ca)

or

Guillermo Hernandez, [ghernand@ualberta.ca](mailto:ghernand@ualberta.ca)