

AGROECOLOGICAL INTEGRATED CROP/LIVESTOCK SYSTEM ANALYSIS

Description:

The objective of this doctoral work will be to develop systemic analysis tools for studying the transition from a conventional dairy system to an agroecological integrated crop/livestock system.

This agricultural experimental system is located in Sherbrooke Research and Development Centre (RDC). Various data have been and will be collected at the level of the soil, plants, animals, wild biodiversity, trees, landscape, and must be organised into a database that will serve as the basis for systemic analysis of the agroecosystem. The tools developed will be used to monitor the impact of the transition on the experimental agroecosystem and could be applied more generally for the study of the resiliency of agricultural systems.

Supervision:

This PhD project will be supervised by:

Dre Caroline Halde

**from the Department of Plant Science
at Université Laval**

and co-supervised by:

Dr Nicolas Devillers

**from the Sherbrooke DRC of Agriculture
and Agri-Food Agroalimentaire Canada**

(AAC) which is funding the project.

The student will be enrolled at Laval University in the Department of Plant Science and will be a member of the Agroecology Laboratory.



Skills:

- Bachelor in agronomy, environment engineering, biology or equivalent
- Master in Plant Science, Animal Science, Agronomy, Agri-Environment or equivalent
- Interest in interdisciplinary approaches
- Good knowledge of plant, animal, soil and environmental sciences in general, and more particularly of grain crops, forage, bovine and/or pig productions
- **Good knowledge in data processing and analysis, and related software (database management, GIS, system analysis, R...)**
- Speak French and English
- Valid driver's license
- **Canadian citizens or residents have a priority**

Conditions:

- **Student work location: Sherbrooke R&D Center (AAFC, Quebec). The courses will mostly be completed in Quebec City (Laval University), with the possibility to take 1 or 2 courses at another university.**
- Experimental site: Sherbrooke R&D Center (AAFC, Quebec)
- Duration of the research project: 3.5 years (2026-2030)
- **The student will be paid by Agriculture and Agri-Food Canada** for 36 to 42 months. The student must be selected through the Government of Canada's Research Assistant Program. The remuneration will be calculated for a part-time according to the rates applicable for doctorate students (e.g. 25.64 \$/h to 38.38 \$/h, rate on May 1, 2025). Afterwards, the student will be strongly encouraged to submit applications for doctoral scholarships (FRQNT, others).
- Deadline for submission of application: until the position is filled

For more information, contact Nicolas Devillers.

To apply, send your CV, a cover letter explaining your motivation for the subject, an unofficial copy of your transcript, and contact information for two references.

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