



Job Advertisement Agroscope Title

PhD position in modelling greenhouse gas fluxes from grazed grasslands

Introduction

N₂O is an important greenhouse gas emitted from agricultural systems. The Climate and Agriculture Group at Agroscope offers a PhD position in modelling greenhouse gas emissions from grazed grasslands as part of the SNSF project REFGASS (Towards Representative N₂O Emission Factors for Grazing Systems in Switzerland). This PhD is offered in conjunction with a second PhD work focussed on the experimental determination of N₂O emissions. Modelling activities will receive support from the University of Alberta Edmonton (Canada) and profit from exchange with other user groups of the ecosystem model *ecosys*.

Tasks

- You plan and perform numerical experiments with the ecosystem model *ecosys* with the aim of understanding the local processes driving N₂O emissions from artificially applied urine and dung patches
- You apply the model to reproduce N₂O emissions from real grazing systems, using existing and new data
- You use the model to evaluate the representativeness of current N₂O emission factors for a typology of farms
- You communicate your work at seminars and international conferences and publish your results in peer-reviewed scientific journals

Requirements

- Master or equivalent university degree in environmental sciences, agronomy, meteorology or similar
- Strong interest for working with a complex process-based model and demonstrable skills in scientific programming (Fortran, R, Python or similar).
- Interest in the statistical evaluation of experimental data
- Very good knowledge of English, both spoken and written, and preferably some knowledge of one of the Swiss national languages

Information on Agroscope

Agroscope is an innovative research institute for agriculture and nutrition run according to the principles of New Public Management. Agroscope is part of the federal administration, and attached to the Federal Department of Economic Affairs, Education and Research EAER. The Department for Agroecology and Environment at Zurich-Reckenholz conducts research for an environmental friendly and competitive agriculture. We offer a varied job in a dynamic work environment, as well as thorough training and a modern research infrastructure. Flexible working hours and good social benefits are among the assets of this position.

Place of Work

8046 Zurich-Affoltern (Switzerland)

Salary Category

According to the standards of the Swiss National Science Foundation

Employment Level

100%

Application Address

If you are interested, we look forward to receiving your online application (documents in a single PDF file) at human.resources@agroscope.admin.ch (ref.nr. 39338) by 1 October 2019.

For further information, please feel free to contact Dr. Christof Ammann, project leader (+41 58 468 7503, christof.ammann@agroscope.admin.ch) or Dr. Pierluigi Calanca (+41 58 468 7512, pierluigi.calanca@agroscope.admin.ch) (do not send applications to these personal e-mail addresses).

Start date: 1 January 2020 or as per arrangement. The contract duration is limited to 4 years.