



Agroscope Job Vacancy

Title

PostDoc, 'Regional Modelling of Agricultural N₂O Emissions'

Introduction

Nitrous oxide (N₂O) is responsible for a large proportion of agricultural greenhouse gas (GHG) emissions. Quantifying direct N₂O emissions of agricultural soils is fraught with great uncertainties. To reduce these uncertainties, we are developing an approach based on the process-oriented model DayCent. For its further methodological development we are looking for a motivated, team-oriented person with enthusiasm for application-oriented research. The post is embedded in the EU Horizon Project PARIS, which is carried out *inter alia* in cooperation with the Swiss Federal Laboratories for Materials Science and Technology (EMPA) and the Karlsruhe Institute of Technology (KIT).

Tasks

- Evaluating and if need be adapting the biogeochemical model 'DayCent' for calculating the N₂O emissions from soils with the aid of special N₂O-isotope analyses (intramolecular-isotope composition) for arable-land and grassland sites
- Compiling and preparing input data for countrywide simulations
- Simulating N₂O emissions at national scale for comparisons with atmospheric models
- Drafting scientific publications in the national and international context

Qualifications

- Doctorate in the field of Natural, Agricultural or Environmental Sciences
- Research experience in the modelling of substance flows in agroecosystems as well as good process knowledge of the soil system
- Programming experience
- Knowledge of two official Swiss languages as well as a very good (spoken and written) knowledge of English.

Information on the Employer

Agroscope is the Swiss Confederation's centre of excellence for research in the agriculture and food sector. Its researchers carry out their activities at various sites in Switzerland. Headquartered in Bern-Liebefeld (from 2025: Posieux, Canton of Fribourg), Agroscope is affiliated with the Federal Department of Economic Affairs, Education and Research EAER.

The 'Climate and Agriculture' Research Group at the Reckenholz site in Zurich researches into the avoidance of agricultural GHG emissions and into climate-change adaptation, and is responsible for Switzerland's GHG Inventory.

We offer you a varied job in an interesting work environment, as well as thorough training. You will benefit from flexible working hours and good employee benefits.

Place of Work

8046 Zurich-Affoltern

Pay Grade

Postdoc

Employment Level

100% (full-time)

Contact

If this challenge appeals to you and you meet the requirements profile, we look forward to your online application, including the addresses of 2–3 references, at our jobs portal www.stelle.admin.ch, Ref. No. 4186 (English is not an official Swiss Language: please choose German, French or Italian as your correspondence language). Dr. Sonja Keel, sonja.keel@agroscope.admin.ch, Tel. +41 58 468 71 25, would be pleased to provide you with further information (please do not send any applications to this email address). Start date: 1 April 2023 or as agreed. The post is for a fixed period of 2 years.

