



Job advertisement Agroscope

Position

PhD Project: **Improvement of the sustainability of potato crops facing environmental stresses**

Introduction

The project: Solutions for improving Agroecosystem and Crop Efficiency for water and nutrient use (SolACE) is a European project (Horizon 2020), for which the main goal is to help European agriculture facing major challenges (<https://www.solace-eu.net/>).

The challenges addressed by SolACE are the increased rainfall variability due to climate change, and reduced use of N and P fertilizers for both economic and ecological purposes. SolACE proposes to design solutions (strategies and tools) that combine novel crop genotypes and agroecosystem management innovations to improve water and nutrient use efficiency in a range of agricultural contexts across pedoclimatic regions of Europe and farming systems (organic and conventional).

Within this project, Agroscope will more specifically investigate the diversity and functioning of roots/rhizosphere microbiomes and their interactions with potato facing water and nutrient stresses; notably in rotations with legumes and, by applying microbial inoculants containing combinations of strains of fungi (Arbuscular Mycorrhizal Fungi) and bacteria, including endophytic bacteria. This will be done through the implementation of glasshouse and field trials.

This will result in a selection of innovative agroecosystem management strategies and tools to be tested on-farm in a broader range of pedo-climatic conditions.

Tasks

You will :

- Carry out field and glasshouse work on crop rotation and crop inoculation with microorganisms, together with our field work team.
- Coordinate the analysis of soil and plant samples in collaboration with the European partners of the SolACE project.
- Conduct statistical analyses.
- Participate to the SolACE project through presentations to partners from potato value chain and knowledge transfer to farmers.
- Publish your research in peer-reviewed journals and present it at scientific conferences.

Requirements

We are seeking a dynamic and self-motivated candidate with the following academic qualifications and skills :

- Master degree in agronomy, environmental science, biology or a related field.
- Interest for applied research and field work.
- Good knowledge in field crops, statistics, and basic knowledge in applied microbiology.
- Experience in dealing with standard computer programs (MS Office and statistic programs).
- Communicative and flexible personality with the ability to work independently and accurately.
- Achievement-oriented, open-minded personality with good capacity for teamwork.
- Good communication and writing skills in English and French.

Organisation

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 is attached to the Federal Department of Economic Affairs, Education and Research EAER. It has research stations at a number of sites around Switzerland but its head office is in Bern (Liebefeld).

The variety and crop management group is based in Nyon, in the Lemman Lake area. The work will be carried out in close collaboration with the department of applied microbiology of the Earth and Life Institute of the UCLouvain (Belgium).

We offer a stimulating work environment in a multidisciplinary research team as well as a close support throughout the project. Agroscope has excellent research facilities with well-equipped laboratories, greenhouses, climate chambers and sites for field experiments and field studies. You will profit from flexible working time and good employee benefits.

Place of Work

Agroscope Changins, 1260 Nyon (Switzerland)

Salary Category

According to the guidelines of the Swiss National Science Foundation



Employment Level

100%

Application

If this challenge appeals to you and you meet our requirements profile, we look forward to receiving your application (brice.dupuis@agroscope.admin.ch). Applications consist of a single PDF containing an application letter, CV, copy of certificates (MSc & BSc) and Email addresses of 2 referees.

This position is open until filled.

For further information: Dr. Brice Dupuis, phone + 41 58 460 47 48, brice.dupuis@agroscope.admin.ch

Start date: April 2019 (negotiable), Duration: 3 years.