



Master work Agroscope

Position

Master student internship – regional agronomic diagnosis

Introduction

Developing practices that could contribute to a reduction in the use of pesticides and fertilizer is one of the priorities of Swiss public research in agronomy. In this context, Agroscope started the ICARO project (Identification of Constraints and Assets of frost-sensitive intercrop with Rapeseed in Organic and conventional production systems) in 2018 with the support of private companies UFA Samen, Nutriswiss and Florin and the scientific collaboration of ESA of Angers and INRA. This project aims to better understand the ecosystem services provided by frost sensitive companions plants (CPs) associated with oilseed rape (OSR).

The development OSR-CPs intercropping increased significantly in Switzerland, from 5% in 2018 to 10% in 2019. However, the success of this practice remains variable and the valorization of ecosystem services such as nitrogen supply is unclear.

Your mission

The purpose of the internship is to improve the understanding of OSR yield variability when grown with CP. You will contribute to the understanding of farmer's choices and motivations, and assess the performance of OSR in various pedoclimatic conditions, in relation with the ecosystemic services provided by various CP mixtures. Since 2018, about fifteen farmers growing OSR with CP are being monitored in Western Switzerland through a regional agronomic diagnosis. Your mission will be to conduct interview with the farmers, participate to the field measurements and sampling and analyze the data of both years.

This work will be supervised by Xavier Boussetin (PhD Student) and Alice Baux (Dr., in charge of the ICARO project) and in collaboration with the INRA UMR Agronomie and the ESA of Angers.

Your profile

- MSc student in Agronomy
- Good communication skills in French
- Interest for agroecology and research
- Curiosity, accuracy
- Excel, R
- A first experience in farmer or expert interview would be an advantage

References

Baux A., Schumacher P. (2019) Développement du colza associé: avis des producteurs suisses. Recherche Agronomique Suisse 10(3), 128–133, 2019

Doré, T., Clermont-Dauphin, C., Crozat, Y., David, C., Jeuffroy, M. H., Loyce, C., Valantin-Morison, M. (2008). Methodological progress in on-farm regional agronomic diagnosis. A review. *Agronomy for Sustainable Development*, 28(1), 151-161.

Verret, V., Gardarin, A., Makowski, D., Lorin, M., Cadoux, S., Butier, A., Valantin-Morison, M. (2017). Assessment of the benefits of frost-sensitive companion plants in winter rapeseed. *European Journal of Agronomy*, 91, 93-103.



Informations about 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 is attached to the Federal Department of Economic Affairs, Education and Research EAER. It has research stations at a number of sites around Switzerland. The variety and crop management group is based in Nyon, in the Lemman Lake area.

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.

Housing can be provided.

Place of work	1260 Nyon (Changins) VD
Employment level	100 %
Duration	6 months
Start	January/February 2020 or as agreed

Contact

If this challenge appeals to you and you meet the required profile, we look forward to receiving your e-mail application, in French or English, to Xavier Boussetin (xavier.boussetin@agroscope.admin.ch, +41 58 467 61 07).

For further information, please feel free to contact us.