Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Eidgenössisches Departement für
Wirtschaft, Bildung und Forschung WBF
**Agroscope**

# INTERNSHIP FOR THE RESEARCH UNIT PIGS, UNDERSTANDING PROTEIN EFFICIENCY IN PIGS, PIGEFF4.0

**80 - 100% / 1725 POSIEUX (FR), SWITZERLAND**

**Good food, healthy environment**

One preceding experiment on the evaluation of growth performance and dynamic in empty body nutrient deposition of grower finisher pigs revealed that approximately 30% of the pigs fed a diet limited in essential amino acids and crude protein can cope with these limitations (Ruiz-Ascacibar et al., 2016). These findings are relevant as they reveal a great potential for genetic selection of "protein efficient pigs" (PEG). It was estimated that if such a selected line could be established in Switzerland, the use of soy protein could be markedly reduced or pig producers could renounce to use it at all in grower finisher diets for pigs (Stoll et al., 2015). We want to test here if some pigs rather eat spontaneously a diet reduced in protein content when both reduce and normal protein content diets are offered ad libitum. We will also assess if this behavior correlates with the protein efficiency. In addition, total and protein digestibility will be investigated to try to understand the metabolic basis of the protein efficiency.

**Tasks**

- You characterize the feeding preference of efficient and normal pigs.
- You test new refined technics to evaluate apparent digestibility
- You supervise the animal phase and you perform digestibility analyses comparing traditional and innovative technics.
- You participate to the animal experiment
- You perform digestibility and statistical analyses
- You interpret and discuss the results as part of the writing of the workpractice manuscript

**Requirements**

- Student (bachelor or master) or graduate (<1 year) in biology/agronomy with knowledge in:
- Animal sciences (preferably pig nutrition)
- Statistical analysis with R
- Ability to collect data from the literature
- Ability to work independently
- Good interpersonal skills allowing effective work with several supervisors and partners
- Very good communication skills: good English language skills necessary , knowledge of two Swiss national languages an advantage

Agroscope is the Swiss federal centre of excellence for research in the agriculture and food sector. Its researchers carry out their work at a number of sites in Switzerland. Headquartered in Bern-Liebefeld, Agroscope is attached to the Swiss Federal Department of Economic Affairs, Education and Research EAER.

The work of the Swine Research Unit in Posieux focuses on pigs nutrition with the aim of reducing health diseases, and improving the efficiency of production, as well as products quality. We offer a wide range of activities in an interesting professional environment, as well as very good research infrastructures.

PigEff4.0 will be conducted at the Swine Research Unit at Agroscope Posieux as part of an ongoing project exploring the protein efficiency in pigs, i.e. the ability to efficiently incorporate the protein ingested into the body. The aim of this project is to estimate the potential for the breeding of more protein-efficient animals in Swiss pig breeds. The STSM will be hosted by Catherine Ollagnier (veterinarian, animal welfare officer) and Giuseppe Bee (head of swine production group).

If this challenge appeals to you and you meet our requirements profile, we look forward to receiving your online application (human.resources@agroscope.admin.ch, Ref.nr. 42348). Online applications consist of a single PDF comprising an application letter, a CV, a reference letter, copies of MSc and BSc diplomas, and the email addresses of 2 referees.

For further information, please contact Mrs Catherine Ollagnier, Research associate, Swine Research Unit (catherine.ollagnier@agroscope.admin.ch, Phone +41 (0)58 467 16 43. Do not send applications to this email address).

Start date: 1st September 2020. Duration of employment: 3 months.