

ISSUE 04 | April 2024

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- Interdisciplinary training for the doctoral researchers
- Field Excursion and Farming in Switzerland
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LegumeLegacy's April Event in Switzerland: A Training as Diverse as the Weather

The long-awaited first training event of 2024 took place in Switzerland in April, featuring a variety of engaging talks and activities. Hosted by the Swiss team members at Agroscope and ETH Zurich, presentations were given on topics including:

- Grassland systems in Switzerland
- Molecular plant breeding and the intersection with Data Science
- History and development processes of mixtures

On Wednesday, we had the chance to meet our EU Project Officer in person, who provided us with insights into the Horizon Europe funding programme. All Doctoral Researchers presented their individual research topics and training to the EU Project Officer and Principal Investigators part of LegumeLegacy.

The week was filled with many highlights, including Switzerland's famous annual "Sechseläuten" folk festival. The doctoral researchers also participated in a two-day DNA lab, organised and lead by the Doctoral Researcher at ETH Zurich, Linn Huser. Finally, the Swiss team organised a field excursion, where attendees, withstood a full day of rain and snow on their trip to Agroscope's fields, the plant breeding greenhouse, and our very own LegumeLegacy experimental site.

Everyone is very much looking forward to the next training event in Poland in September 2024.

Linn Huser, Meret Kaspereit, Rouven Lattner

Don't miss out!

Follow us on social media:
[@LegumeLegacy](#)



Our Instagram is in the planning process and will be launched soon!

Next training event:

September 9th - 13th 2024 in Poznan, Poland.

Don't miss updates on the blog, which you can find on our [website](#).

Field Excursion and Lab Work

A Field Excursion to Agroscope

Our visit to Agroscope near Zurich, the national centre for agroecology, was certainly "frozen into our memories" to use the words of one of the Principal Investigators. Participants received an introduction to the forage species used for mixtures and the testing of their varieties in the field. The plots being covered in snow and the cold did not withhold the enthusiastic participants when they had the opportunity to identify some grass species. Back inside, at the research institution's greenhouse, the first steps of breeding forage plants were then demonstrated. In the afternoon the programme continued outdoors, where participants visited several stripe experiments, representing a more advanced step in the breeding programme. Prasanth, the Doctoral Researcher located at Agroscope, showed the LegumeLegacy field experiment, which ended with a hailstorm challenging the integrity of every umbrella. Overall, the excursion was clearly a great success, as all participants continued to eagerly ask questions and were not discouraged by the extreme weather conditions.

Linn Huser, Meret Kaspereit, Rouven Lattner



Doctoral Researchers in the DNA Lab

One part of the training was conducted by the Doctoral Researchers in the molecular labs at ETH Zurich. Here, we extracted DNA from leaf samples and assessed the purity and concentration of it, before successfully amplifying the samples with PCR markers. This allowed us to analyse and identify the cultivars each leaf sample belonged to. The variety in the types of trainings were greatly enjoyed!

Linn Huser, Meret Kaspereit, Rouven Lattner

FARMING IN SWITZERLAND AND THE CULTIVARS OF LEGUMELEGACY

Farming in Switzerland

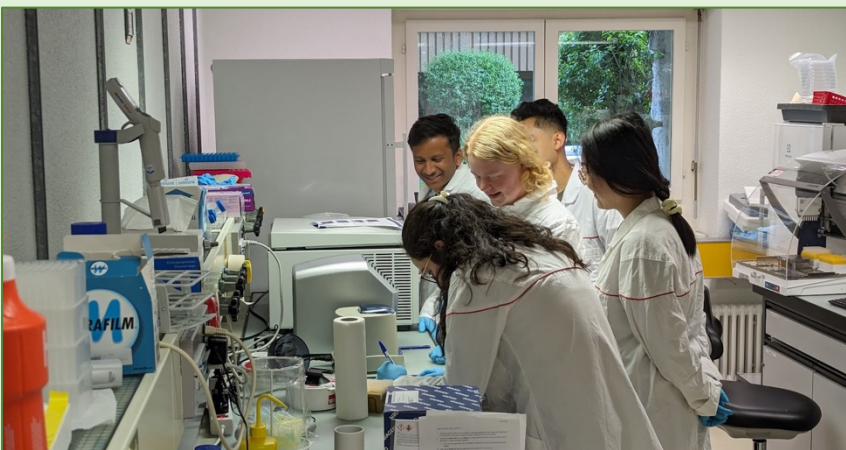
Grasslands cover 80% of Switzerland's agriculturally used area and have a long-standing tradition. A very site adapted management is a key element of Swiss farming, ranging from highly intensive production to fields promoting extensive biodiversity. Grassland ley mixtures, which are the focus of LegumeLegacy's research, are mainly established in the lowlands. Permanent grasslands and summer pastures in the alpine regions contribute significantly to the agriculturally used area. This is mostly related to the country's mountain-dominated landscape: the Alps lead to a high and temporally well distributed annual precipitation, which is necessary for productive grassland growth. In the lowlands, urbanization and highly fertile soils lead to a strong competition for land use. Where arable farming is not possible due to very steep terrain, animals can still utilize these alpine areas for grazing. It is no surprise that the grassland production training during this LegumeLegacy event was of excellent quality in terms of professional expertise. It was rounded off with a visit to a family farm, where we received a delicious dinner, featuring their locally sourced produce.

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Our 17 cultivars

Did you know that we do not only research diversity between six species in mixed swards, but also within species? We have between one and four cultivars of each species! Over the last months, these cultivars have been growing separately in comfortable temperatures in the greenhouses at ETH Zurich, and they are now ready to be harvested. The samples will be used as a reference library for the future genetic diversity analyses.

Linn Huser, Meret Kaspereit, Rouven Lattner





LegumeLegacy is an MSCA Doctoral Network

<https://legumelegacy.scss.tcd.ie/>

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