



About the Project

The Soil4Nature project focuses on supporting regenerative agriculture and soil protection in the Pannonian Basin.

The goal is to gather, test, apply, and disseminate sustainable practices that improve soil quality and biodiversity.

Project Progress

Farmers on both sides of the border successfully procured and purchased the necessary equipment for implementing the field experiments:

- Strip-till technology was purchased by Agro-Mark,
- A no-till seeder was acquired by PD Krakovany – Stráže.

At the same time, soil sensors were installed on both farms to ensure continuous data collection on soil conditions.

The project's website www.soil4nature.eu has also been launched, and information about the project and sensor data are gradually being published there.



Field Experiments

Agro-Mark Trial Field (Hungary)

The field was divided into two halves:

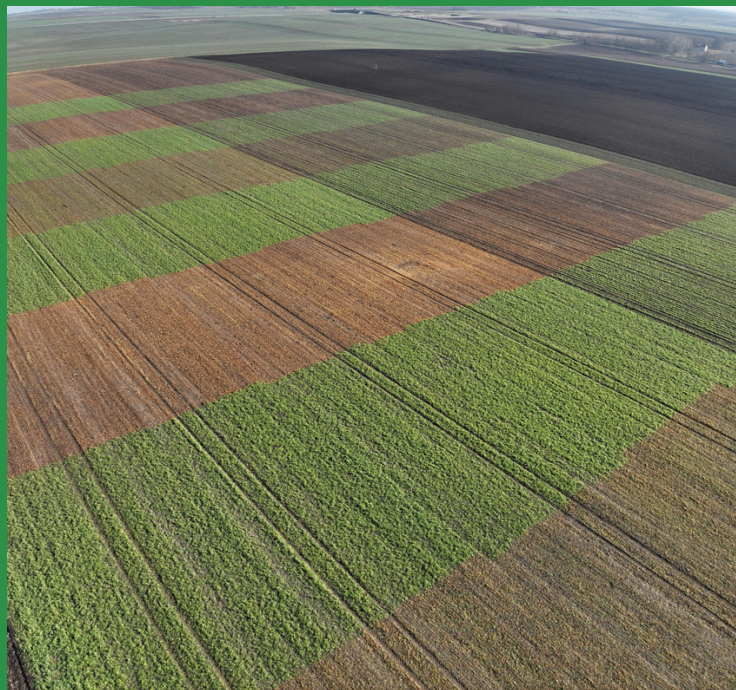
- one with conventional tillage,
- the other with strip-till technology.

Across the field, cover crop trials were established in four variants:

1. Monoculture grass mixture
2. Dicot mixture
3. Mix of grass and dicot species
4. Control – without cover crops

Two sensors were placed in each category (one in each tillage type), measuring at 30 and 60 cm depths – making a total of 8 sensors.

Corn was sown on the field in spring.



Trials at PD Krakovany – Stráže (Slovakia)

The experiment is conducted on:

- two no-till fields with different soil types (chernozem and brown soil),
- two conventionally cultivated fields.

Intercropping is applied on the no-till fields – pea, common vetch, and hairy vetch, with corn and sunflower as the main crops.

A total of 8 sensors were installed – 3 on each no-till field and 2 on conventionally cultivated fields.



The aim of the experiments is to analyse soil moisture, temperature, and conductivity under different combinations of agrotechnical methods. The sensors transmit data in real time to an online platform via a base station located at the edge of the field.

Drone monitoring of the fields is also carried out regularly. Results will be published on the project website.





Partner Meeting

On 20 February 2025, project partners met at PD Krakovany, where they evaluated the status of the experiments in Hungary and jointly planned the establishment of trial fields in Slovakia using intercropping.

Partner Spotlight



Bioeconomy Cluster (BEC)

Bioeconomy Cluster (BEC), the lead partner of the Soil4Nature project, is celebrating 10 years of operation this year. It brings together more than 40 members from business, research, local governments, and civil society, with the aim of fostering innovation and knowledge transfer in the bioeconomy sector.

BEC has successfully implemented dozens of national and international projects and was awarded the Bronze Cluster Excellence Label in 2019. It provides project management, consulting, and supports the development of the bioeconomy both in Slovakia and abroad.

In the Soil4Nature project, BEC is responsible for coordination, communication, and the preparation of information materials, including newsletters and videos.