#soil4nature

newsletter 05

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

During the winter and early months of 2026, field experiments continued at both pilot locations of the project.
At PD Krakovany – Stráže, winter wheat was established following the corn harvest, while soil moisture monitoring continued through the installed soil sensors. On another experimental field, the sowing of corn combined with cover crops was planned for spring 2026.
At the AGRO-MARK experimental site in Hungary, a cover crop mixture was established across the entire field to improve soil structure and provide winter soil protection. The partners also prepared the next phase of the experiments for 2026.

The research will continue to focus on comparing regenerative farming practices, particularly strip-till and no-till systems. According to the planned crop rotation, sunflower will be grown in spring 2026, followed by wheat in autumn. This will ensure continuous monitoring of soil parameters and the assessment of the long-term effects of regenerative practices on soil health and crop production.

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Field Experiments

AGRO-MARK Trial Field (Hungary)

During the 2025 growing season, field experiments continued at both pilot locations of the project. At the AGRO-MARK farm in Hungary, the results confirmed that the distribution of rainfall throughout the season has a greater impact on soil water management than the total amount of precipitation. The largest differences between the tested farming systems were observed during periods of drought and extreme rainfall events.

Trials at PD Krakovany – Stráže (Slovakia)

At PD Krakovany – Stráže in Slovakia, undersown crops – spring pea, common vetch and field pea (peluška) – were tested in combination with corn and sunflower. Corn was sown in early May 2025 and, after reaching the three-leaf stage, the companion crops were established within the crop stand. Observations during the growing season showed that the undersown crops had no negative impact on corn growth or final yield.

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Partner Meeting

On **27 February 2026**, the project partners met in **Nitra, Slovakia,** to review the progress of the field experiments, discuss the status of the monitoring systems, and plan activities for the upcoming season. Particular attention was given to the operation of the soil sensors and the collection of data from the experimental fields. Partners also discussed technical improvements to the digital dashboard used for visualising sensor data.

During the meeting, plans for the 2026 season were presented, including the continuation of field monitoring activities and the establishment of new trials combining main crops with cover crops. The partners also agreed to prepare a scientific paper based on the results of the field trials and discussed the development of a practical guide on regenerative agriculture summarising the project's experience and findings for farmers and agricultural professionals.

Partner Spotlight

Bioeconomy Cluster · DISCOVERY CENTER · AGRO MARK Kft. MONOR 1991 · PD Krakovany Stráže

AGRO-MARK Ltd.

AGRO-MARK Ltd. is a Hungarian agricultural company based in Monor, Pest County. Established in 1991, the company currently employs seven people, including its owners. Its main activities focus on the cultivation of cereals and oilseed crops. In cooperation with other private farms, AGRO-MARK manages approximately 1,100 hectares of arable land.

The company has a long-term commitment to implementing innovative and sustainable farming practices. Since 2016, it has been using digital technologies and has gradually introduced precision agriculture solutions, including yield mapping, remote sensing, geoinformation systems and site-specific input application.

Alongside its digital transformation, AGRO-MARK has been actively developing regenerative farming practices, including minimum tillage, no-till systems and the use of cover crops. Within the Soil4Nature project, the company provides experimental fields where regenerative agricultural practices are tested and evaluated under real farming conditions.

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