

Progress of the NBS implementation and testing in Hungary

THE CONTEXT

For trans4num, a socio-economic and agronomic baseline assessment of the NBS site Szigetköz, Northwest Danubian Valley in Hungary is conducted while also describing important nutrient management related challenges on the site. On the experimental farm and beyond, the potential of the selected NBS is explored through field trials, modelling approaches and invited expertise.

Field experiments

The Hungarian team is carrying out field experiments on a 20-hectare plot, comparing NBS potentials with conventional farming practices using a three-year crop rotation of durum wheat, sorghum, and soya.



Durum wheat Soya Conventional HAS Sorghum Conventional ABS Conventional

Crops

Three year crop rotation of durum wheat, sorghum and soya on a 20 hectare plot.

Monitoring

The trials are constantly monitored throughout the growing season. Soil and plant sampling, along with remote sensing techniques, are employed to guide nutrient application decisions based on measured nutrient levels in the soil and plants.





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Biodiversity

The site is part of a biodiversity monitoring effort, particularly focusing on ornithological surveys. Szigetköz boasts a rich bird diversity, with 206 observed species, representing 57% of the Hungarian avifauna.



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Stakeholder engagement

The site serves as a location for engaging local farmers and expert scientists in discussions about NBS.
Events held at the Szigetköz Experience Centre in Dunasziget aim to share knowledge and experiences related to NBS, sustainability, soil health, and farming methods.

Preliminary findings

Initial results from the first year of the study indicate no significant differences in leaf and soil samples or yield results between conventional and NBS treatments. However, significant differences were observed in soybean pod size and the number of beans, with the NBS site showing better results.



Next steps

The HU team will continue monitoring and evaluating the effectiveness of NBS in the coming years, focusing on refining practices, assessing long-term impacts, and ensuring scalability. Additionally, efforts will be made to engage policymakers and advocate for supportive policies and regulations to facilitate the broader implementation of NBS.