

STATEK NOVOTINKY

Good Practice Collection



Introduction

Statek Novotinky is a family farm located in the Central Bohemian region, dedicated to cultivating crops and raising livestock. The farm was established in 1999 and currently employs six workers. There's plenty of innovation and regenerative practices to be found at the farm, as the soil in the area has historically suffered from erosion and low nutrient quantities.

The Farm

Antonín Sýs manages the farm together with his son, Petr, and Petr's wife, Brigitte. Antonín enjoys recounting the story of how the farm location was first discovered – on a ride on horseback back in 1986, when he laid his eyes on a homestead about to be demolished. Gradually, the family restored the homestead and acquired the land surrounding, today amounting up to 1000 hectares, on which the family grows crops and raises livestock. The location of the farm is at an altitude of approximately 600 meters, with favorable climatic conditions – mild climate and sufficient moisture.

The Location

Statek Novotinky is located in the small village of Novotinky, after which it is named, which is a part of the nearby market town of Načeradec, part of the Benešov district. You may find this location in the Central Bohemian region, situated at the south-eastern corner of the region, bordering the South Bohemian and Vysočina regions. It is approximately 90 kilometers away from the seat of the region and capital city, Prague. The region could be described by many as “typically Bohemian”, defined by wide spans of lower hills and a rather high percentage of agricultural land, with many interesting sights spread around the region, attracting many tourists from Prague, looking for a weekend getaway from the busy city.

Agricultural regeneration objectives

Out of the 1000 hectares available for agriculture, 235 hectares are used to grow grass, where horses and cattle graze the grass. The crops cultivated in the rest of the land include wheat, rye, barley, oat, potatoes, oilseed rape, peas, poppy and clovers. Large quantities of hay and haybales are sold at the farm. The farm also specializes in selling various farming equipment and machinery.

Historically, the farmland and soil have suffered from high erosion, low humus content, low soil health and quality, low water retention properties low biodiversity and slopes, which meant a lot of washing during heavier rainfalls. Because of that, the tillage on the soil was excessive and a high amount of chemicals had to be used.

This has led to the decision to try new approaches – a complete change of course for the farm, which has gradually adopted new strategies of farming to solve the underlying issues rather than suppressing them.



Best Practice Focus

First of all, soil protection technologies have been implemented, most importantly no-till technology, strip sowing directly into the soil without tillage. Another key innovation is the use of cover crops – continuous covering of the soil with plants is ensured, so that photosynthesis carries on through the whole season, enhancing organic matter in the soil. The slopes on the farm were grassed, improving the health of the soil and thus their ability to retain water, eliminating washing during rain. Anti-erosion belts were created, along with grass strips, streams and ponds with drainage channels. Rows of trees have been planted and multi-species buffer zones created.

The results of these improvements have been highly positive – the farm has seen significant improvements to soil health and quality, increased organic matter and humus content, substantially reduced erosion and improved water retention properties. These changes have also led to a reduced dependency on chemical inputs and in the end, most importantly, to better crop yields.



Financial aspects of regenerative measure implementation

The farm has gradually made extensive changes to their farming approaches, which required extensive training for all farm personnel, such as workshops, field demonstrations, training sessions conducted by experts and also continuously staying updated on the latest innovations and research. The adoption of new farming mechanisms also required a significant investment in specialized agricultural machinery. While very steep, these investments represented costs up front once implemented, not requiring continuous investments afterwards. Additionally, the lower need for heavy machinery operations and chemical treatments translate into savings over time. Long term, these approaches also mean a lower dependence on subsidies due to their economic sustainability, however most farmers are likely to need subsidy support for the initial implementation of the practices.



Categorisation, keywords

This case study describes a successful example of large-scale implementation of regenerative agricultural practices such as no-till and cover cropping, also focusing on restoring biodiversity and enhancing soil health, humus content and soil nutrients.

No-till, cover crops, biodiversity, erosion, soil health, soil nutrients, humus content, water management, waterways, multi-species buffer zones

Advantages and disadvantages of large-scale adoption of no-till and cover cropping practices

Advantages	Substantial benefits in improved soil health, nutrients, humus contents and biodiversity, also meaning higher resilience to sudden weather events and climate change
	Replacing heavy chemical use and specific machinery with regenerative practices, reducing the ecological toll on the land
	Lower long-term running costs and potentially same or higher crop yields
Disadvantages	Very high up-front costs of initial implementation
	Steep learning curve necessary, including follow-up education
	Constant monitoring and adjustments are necessary – more intensive on maintenance than conventional methods

Learning points

Knowledge	Requires complex understanding of regenerative farming principles to successfully adopt them at the specific location.
	Requires understanding of the soil profile to be able to select the ideal combinations of crops to grow.
	Specialists may be necessary to help design effective waterway and water drainage systems.
Skills	Learning the different techniques, specific for regenerative farming practices.
	Versatile mindset, ready to adapt based on current conditions, which are more volatile than in conventional farming.
	Precise planning skills to be able to predict developing conditions and circumstances.

References/Bibliography

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Regenerative Agricultural Practices for Environmental Rejuvenation and Sustainable Ecosystems on European Farms



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