Reducing the environmental burden on the Bohunice dairy farm

Farm competitiveness improved by investment in ecological animal welfare technology.

EAFRD-funded projects

Location: Trenčín region, north west Slovakia
Programming period: 2014-2020
Priority: P2 – Competitiveness
Focus Area: Farm's performance, restructuring & modernisation
Measures: M04 – Investments in physical assets
Funding:

Total budget	190 617.00 (EUR)
EAFRD	57 185.00 (EUR)
National	19 062.00 (EUR)
Private	114 370.00 (EUR)

Timeframe: 2017 to 2020
Project promoter: Poľnohospodárske družstvo «Vršatec»
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Summary

The cooperative 'Vršatec' is a medium-sized agricultural holding in north west Slovakia. In view of the constantly changing market factors, the cooperative aims to streamline its production processes to stay competitive.

This project's main strategic objective was to comprehensively modernise the cooperative in terms of its production efficiency, processes and capacities while observing environmental and animal welfare legislation. Ongoing monitoring of all farm processes and exploring how new technology could contribute to their optimisation are considered key management tasks. As part of this process, slurry storage and affordable bedding for the animals were identified as issues to improve. When the farm management searched for suitable solutions, they found that both issues could be solved with one technology.

CAP funds helped the cooperative increase its competitiveness by purchasing relevant innovative technology, which translated into improved animal welfare as well as better economic and environmental performance.

Project results

The following results were achieved:

- Improved animal welfare.
- Significant improvement in the quality of the raw cow's milk due to the reduced somatic cell count (25% decrease in a pool milk sample).
- Reduced production costs, creating an annual saving of EUR 25 000 due to the decreased costs for animal bedding.
- One job created (part-time).

Key lessons and recommendations

CAP can fund rural tourism projects for businesses that can have beneficial outcomes supporting the wider rural economy.

Context

The agricultural cooperative 'Vršatec' was established in 1991 in north west Slovakia. It manages 1 540 ha of land in the Inner Carpathian Mountains focusing on agriculture, forestry and selling unprocessed agricultural and forestry products. Cattle husbandry is the main output of the cooperative, including dairy cow breeding, milk production and cattle fattening.

Renovated in 2001, the cooperative's Bohunice dairy farm rears red Holsteins. It houses around 500 dairy cows with a closed herd turnover. The farm has an annual milk production quota of 2.8 million litres.

Over the years, the cooperative has been working to optimise management of all its technological processes to minimise any potential factors that could negatively affect final production outputs. At Bohunice dairy farm, this involves the management of the feed rations, supervising the health and welfare of the animals, the optimisation of the milking process, etc. Monitoring these aspects carefully showed that slurry storage and affordable bedding for the animals were two issues that needed to be addressed to improve the welfare of the animals. When the farm management searched for suitable solutions, they found that both issues could be solved with one technology. The decision was made to develop a relevant project and apply for CAP funding support.

Objectives

The project had the following objectives:

- To modernise the animal production process by solving the issue of slurry processing.
- To reduce greenhouse gases, especially methane, soot and subsequently CO2, by installing a modern closed technology for the storage and mixing of slurry.
- To make use of renewable energy sources by connecting the newly installed technology to photovoltaic equipment.

Activities

The project involved the following activities:

- Procuring and integrating the new technology for the separation and sterilisation of slurry. This technology works on the basis of separating the solid component of the slurry, suitable for bedding, from the liquid nutrient-rich component that is suitable for being applied to the soil after appropriate sterilisation.
- Procuring and installing a photovoltaic device sourcing energy from solar power helping to reduce the environmental and economical operating costs.

Main results

The following results were achieved:

- Improved animal welfare.
- Significant improvement in the quality of the raw cow's milk due to the reduced somatic cell count (25% decrease in a pool milk sample).
- Reduced production costs, creating an annual saving of EUR 25 000 due to the decreased costs for animal bedding.
- Improved working conditions.
- One job created (part-time).
- New ideas generated for the potential further development of activities focusing on using the liquid fraction of the slurry.

All results were achieved while respecting environmental protection requirements.

Key lessons and recommendations

- The key to success for this kind of project is excellent knowledge related to the machinery and techniques used in animal production.
- It is also very important to look out for new developments and become familiar with new, available technologies. Visiting other farms to benefit from their experience is advisable.
- The implementation of a new technology can help trigger new ideas leading to further learning and exploring about the opportunities for automation of the whole farming process.

"The aim of our work is to improve the landscape and maintain employment in the region. I think we owe it to the local region in which we operate, as well as the local landowners, to create some added value."

Mr Kopšo, Chairman of the Agricultural cooperative 'Vršatec'

"Diversification is a powerful tool, especially if it is targeted at activities that bring regular income into the business."

Mr Kopšo, Chairman of the Agricultural cooperative 'Vršatec'

Additional information:

Funded by the European Union