

LATVIA

Farm's performance, restructuring & modernisation

Location

Ērgemes pagasts

Programming period

2014 – 2020

Priority

P2 – Competitiveness

Measure

M04 – Investments in physical assets

Funding (EUR)

Total budget 433 562.62

RDP contr. 209 724.62

Private 70 000.00

Other (loan) 153 838.00

Project duration

2016 – 2017

Project promoter

Z/s "Lejascini"

Contact

lejascini@inbox.lv

Website

n/a

A young farmer used RDP investment support for the construction of a facility for primary processing of grain seeds.

Summary

Kristaps Sula is a young farmer who took over the family farm and cultivates 650 ha of wheat, rye, barley, oats, peas, rape, buckwheat and clover. Kristaps is an ambitious farmer who wanted to improve the quality of the grains produced and to be in control of the whole production process, including processing.



With this objective in mind, he obtained investment support from the Rural Development Programme (RDP) to construct a new, effective grain pre-treatment facility for drying and cleaning cereal grains. The use of modern technology enabled more efficient management and control of the processing, resulting in higher quality products, higher yields and, consequently, higher profitability.

Results

The farm's financial situation has improved as its production of high-quality products has resulted in higher prices. Its grain is sold as high-quality grain feed for EUR 27 per tonne, which is higher than before on-farm processing. Additionally, the share of the product that is sold as high-quality certified cereal seed yields EUR 290 per tonne.

Compared to 2017 and 2018, the income from the same farmed area has increased by 42 %.

Electricity is being saved because transparent panels were incorporated into the walls and roof of the building to ensure that daylight helps illuminate the facility.

The improved processing also means 7 % fewer grain losses.

Context

Since childhood, Kristaps Sula has been working with his parents and grandparents on their farm called 'Lejascini'. Gradually, his interest in farming increased and he later decided to continue his studies at the Latvian Academy of Agriculture. While studying, he already took over the management of the farm.

In 2019, the farm had 650 hectares of agricultural land and about 150 hectares of forests. It is notable that in 2018, the sowing area was only 392 hectares. In total, seven people are now employed on the farm, including the owner. Two additional employees are occasionally required as well during busy periods. The farm is technically fully equipped to work independently and also to provide contracted services to neighbouring farms. The farm cultivates wheat, rye, barley, oats, peas, rape, buckwheat and clover. The idea for the project was conceived in 2011, when for the first time it was not possible to dry and clean their harvested grain due to large queues and delays at all the local grain delivery points. Until this project was implemented, the farm would outsource the initial processing of the grain (drying and cleaning). The existing processing service was also of low quality, so their former product sales did not fetch the maximum price. Thus, Kristaps decided to build his own primary seed processing facility for grains.

Objectives

The main objective of this project was to increase the farm's efficiency by internalising a previously outsourced process. This would allow the farm to create greater added value for its products by improving their quality and thus achieve higher sales prices.

Activities

The project was inspired by a Finnish pre-treatment grain processing facility, but it was the first time anyone was attempting it in Latvia. This created additional stress for both the farm and the builders, as nobody involved in this construction had any previous experience. Firstly, they developed the technical design and then began its construction, building the facility's foundations, the driveways and the service area. The investment was completed with the installation of the equipment. Vertical grain pathways were designed to reduce the risk of grain spillage, which also allow for the cereal seeds to be mixed. The facility was designed to be energy efficient as well, which reduces the cost per tonne produced.

The facility can store 780 tonnes of finished cereal seeds. It consists of 12 bunkers, which also serve as the walls of the building. The centre of the building holds the grain chisel with a processing capacity of nine tonnes per hour. It is possible to process 150 tonnes with moisture levels up to 20 % in 24 hours.

In order for Kristaps to remotely control what is happening in his newly built complex, and at the same time to make it easier for the employees to perform their duties, the facility is equipped with an intelligent management system. The system can be controlled remotely by mobile phone. On site, all necessary adjustments and indicators are regulated by a touch-sensitive monitor, so the operator may be at a safe distance from the moving parts, which improves work safety conditions. By mobile phone, it is possible to turn the chisels on and off, change grain flow pathways, start and stop car refueling to transport the finished products. Real-time information is available on the status of the burner and its temperature. The operator can also see which bunkers are full and which ones are empty.

Reduced heat losses are achieved because the fuel boiler is located indoors at the industrial building. The fuel woodchip bunker is positioned close to the boiler and protects the oven from the wind, which reduces heat losses. A grain drying kiln is located at the centre of the complex, which means that the weather – either wind or rain – does not take away the heat as the airway to the grain is only 3.8 metres from the furnace to the plant.

This applied technology has simplified the work. A skilled worker only needs to supervise the functions and control the quality of the products as everything else is done automatically.

Main results

The farm's financial situation has improved as the production of high-quality products has resulted in higher sales prices. The grain is sold as high-quality grain feed for EUR 27 per tonne, which is higher than before processing on-farm. The share of the product that is sold as high-quality certified cereal seed yields EUR 290 per tonne.

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Additional sources of information

www.youtube.com/watch?v=x2Vgpyvn00A