European Network for Rural Development

Introducing a new technology for innovative processing of soybean

EAFRD-funded projects

SLOVAKIA

Agri-food chain integration and quality

Location
Bratislava

Programming period
2014 – 2020

Priority
P3 – Food chain and risk management

Measure
M04 – investments in physical assets

Funding (EUR)
Total budget 3 400 000
EAFRD 750 000
National/Regional 250 000
Private 1 000 000
Other 1 400 000

Project duration
2016 – 2017

Project promoter
GAMOTA JR s.r.o.

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Support from the rural development programme was used to establish an innovative production of GMO-free soybean oil products of superior quality.

Summary

Support from the rural development programme was used to establish an innovative production process of soybean oil and soybean expeller (animal feed) that is free of GMOs and chemicals. Both products are of superior quality with unique nutritional values, such as higher digestibility and free of any chemical residual substances, through investment in new technology.

Results

The extracted soybean meal and soybean expeller that contain 7-9% had not previously been produced in Slovakia, so it is a unique production in Slovakia.

New jobs in a region with an unemployment rate of around 22% .

This innovative technology and production was awarded the Certificate of Innovation by the National Agricultural and Food Centre - Technical and Testing Institute for Agriculture.

Lessons & Recommendations

- ❑ Innovation is key. In this project it resulted from the latest developments in quality control, soybean growing technology, logistics and food production.

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Context

Soybean is currently the fourth most widely cultivated crop in the world. The importance of soybean production is constantly rising, mainly because soybean is an exceptional and still cheap source of essential nutrients, mainly protein. In order to increase the efficiency of soybean production, companies have genetically modified seeds to resist diseases and some pesticides. However, it is difficult to predict how these genetically modified plants affect human health, and therefore the food industry is concerned about the non-use of GMO plants. Furthermore, demand for healthy food is increasing, and the food and feed industries is adjusting. Food producers are trying to replace chemicals with natural alternatives.

Slovakia needed to import 90-100 thousand tonnes of soybean a year. The import price was influenced by the world market, independent of the cost of domestically produced beans in Slovakia, and therefore this price was considerably higher. But relatively low export prices of soybean cultivated in Slovakia reduced profits for Slovak farmers.

The technology bought within this project can process soybean without the addition of any chemicals so the resulting products are free of any chemical residual substances. Using such technology, along with processing of GMO-free soybean, results in high-quality healthy soybean products.

Objectives

The main objective of the project was to contribute to securing food self-sufficiency in Slovakia by strengthening the Slovak food industry. Through efficient soya growth, the export performance and competitiveness would increase, while contributing to employment and economic development of the Slovakian rural areas.

Activities

Support from the rural development program was used to establish through investing into new technology an innovative production process of GMO-free soybean oil, 'GamoSoy', and soybean expeller, 'SoyProFat' (animal feed), both of superior quality with unique nutritional values, higher digestibility and free of any chemical residual substances.

In addition to the administrative works and public procurement procedures, two core activities were carried out by the project:

June 2016 – May 2017 - Procured of soybean processing technology and installed it in the production hall in Male Straciny (south Slovakia).

The production capacity of the innovative soybean processing line is 8 tonnes per hour. In normal operation it can process 60 000 tonnes of soybean per year enabling the beneficiaries to produce 7 200 tonnes of soybean oil and 52 800 tonnes of soybean meal. They started testing the first line in June 2017, arriving at full operation capacity in December 2017, while achieving the expected qualitative and quantitative results for the final products.

June 2017 – November 2017 - Started the production of soybean products, GMO-free soybean oil GamoSoy and soybean expeller SoyProFat (animal feed).

Educational activities were also organised including meetings and workshops among farmers across Slovakia. The project holders constantly developed close and long-term cooperation with both farmers and retailers. Cooperation helps farmers sell their crops and retailers to have consistent and sufficient primary raw material (GMO-free).

Main results

The extracted soybean meal and soybean expeller that contain 7-9% had not previously been produced in Slovakia, so it is a unique production in Slovakia. With the new technology, GAMOTA JR is able to bring to the Slovak market completely new, innovative soybean processing that will raise the level of food and animal feed industries and will substantially increase the pro-export potential of the Slovak agri-food industry.

New jobs in the region with an unemployment rate of around 22%.

This innovative technology and production was awarded the Certificate of Innovation by the National Agricultural and Food Centre - Technical and Testing Institute for Agriculture.

Key lessons

Innovation is key, which for this project was built upon developments in quality control, soybean growing technology, logistic and food production.

Additional sources of information

n/a

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