

BULGARIA

Agri-food chain integration & quality

Location
Kostenets

Programming period
2014 – 2020

Priority
P3 – Food chain & risk
management

Measure
M4 – Investments in physical
assets

Funding (BGN)
Total budget 584 365
RDP contribution 292 183

Project duration
2015 – 2018

Project promoter
BULFRUKT Ltd.

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An investment project for the modernisation and automation of a frozen fruits processing plant in order to minimise production losses.

Summary

‘BULFRUKT’ Ltd. is a family company first established in 1995 with more than 20-years’ experience in processing, freezing, packaging, storing and selling frozen soft fruit and berries. Due to the seasonal character of the input raw material the production activity is seasonal and the company has to work as quickly and efficiently as possible. In addition, the ratio of losses to the quantity of production was over 34%.



To solve these problems, a new investment was put in place for the modernisation and production processes’ automation. This investment project included the purchase, delivery and installation of a packing machine, an anti-vibration platform with a linear dispenser, a wrapping washing line and a three-axle electric motor.

Results

This investment helped improve the competitiveness of BULFRUKT Ltd. This was achieved through modernisation which guarantees the profitable production of high quality product, through the use of modern technologies and strict control of the entire process.

The energy audit carried out for the project showed that the CO2 savings would amount to 42.97 tonnes per year and a reduced annual energy consumption of 261 439 kWh. This is equivalent to 16.7% less compared to the baseline before the investment, thus significantly reducing the company’s carbon footprint.

The investment has also a positive contribution on raising employment in rural areas - eight new full-time jobs were created.

Context

The beneficiary 'BULFRUKT' Ltd. is a family company first established in 1995. It has more than 20-years' experience in the purchase, processing, freezing, packaging, storing and selling of frozen strawberries, raspberries, blackberries and other soft fruit and berries. Besides the refrigeration workshop, the company also has a canned factory for cucumbers, as well as a greenhouse for vegetable production. Over the years, the company has been gradually expanding its production range.

The refrigeration plant was put into operation in 2001 and is located in the town of Kostenets in the Southwest region of Bulgaria. The location is a strategic advantage of the company since it is 70 km away from the capital Sofia, 90 km from the city of Plovdiv and is close to the famous winter resort 'Borovets'. The location and good transport links facilitate communication with growers and suppliers of fruits from all over the country. The region of Kostenets is famous for its long tradition and experience in strawberry and raspberry production, which is also a major livelihood for the population in this rural area. In recent years there has been a regional increase in the number of producers and hectares of new plantations - mainly raspberries, including bio-plantations of strawberries and raspberries.

After graduation with a Master's Degree in Business and Finance, the owner's son joined the company as co-owner in 2012. This was key to the company's marketing, investments and being established as a major brand in Bulgaria and in the European Union more broadly. Due to the seasonal character of the input raw material (berries - strawberries, raspberries, blackberries), the production activity is seasonal and the company has to work as quickly and efficiently as possible in order to use the regional potential in the most profitable way.

Unfortunately, the weighing and packaging of the products was done manually, which greatly slowed down the production process. In addition, fruit is often crushed, or parts of it eroded, which degraded the quality and leads to losses - the ratio of the losses to the quantity of production achieved reached over 34%. To solve these issues the young partner began planning the automation and modernisation and production processes in order to increase yield and minimise waste.

Objectives

The project objectives included to:

- improve the competitiveness of the company;
- introduce new technologies contributing to the production of highest quality and bio-products;
- increase the market share of company's products and expand to markets and customers across Europe.

Activities

This investment project included the purchase, delivery and installation of a packing machine, an anti-vibration platform with a linear dispenser, a wrapping washing line and a three-axle electric motor.

The packaging machine with a linear scale and a zipper applicator, consists of a three line dispenser for dispensing frozen raspberries.

The platform wrapping machine has a zipper applicator and moulding tubes, a thermal transfer printer and an output conveyor for packaged product. This machine is designed to precisely dispense a sensitive agricultural product such as raspberries and other berries.

The wrapping and washing machine is used after the fruit has been delivered and drained from the crates. The loose crates are placed on the euro pallets and are driven by an electric truck to the wrapping washing machine. The aim is to produce a safe product, in strict compliance with the requirements of standard ISO22000: 2005; the system for hygiene and safety of manufactured products.

The triple-headed electric lift truck is widely used in the plant. It is used for loading and unloading both the input raw material and the finished end product and the organisation of the storage premises.

Processed fruits preserve their nutritional and taste qualities. Single (frozen) frozen fruits are designed for large supermarket chains, luxury hotels and restaurants. This requires extreme precision and accuracy in the measurement and quality of the product. Frozen fruits are used as a raw material in the production of jams, jellies, juices, as well as in the production of ice cream, yoghurt, pastries, cakes and other confectionery products.

Main Results

This investment helped improve the competitiveness of BULFRUKT Ltd. This was achieved through the modernisation which guarantees the profitable production of high quality product through the use of modern technologies and strict control of the entire process. By implementing this investment, BULFRUKT Ltd. will increase the sales, profits and labour productivity; the cost per unit of output will decrease; the company will be able to implement its strategy for market penetration.

The new machinery allows for better use of the factors of production and natural resources thanks to the automation; and increase of its energy efficiency. The

energy audit carried out for the project showed that the CO2 savings from energy savings would amount to 42.97 tonnes per year and an annual energy consumption of 261 439 kWh. This is equivalent to 16.7% less compared to the baseline before the investment, thus reducing significantly the company's carbon footprint.

The investment has a positive contribution on raising employment in rural areas - eight new full-time jobs were created.

It contributes to the development of the rural economy because it is an investment realised in cooperation with local farmers, since BULFRUKT Ltd. signs direct contracts with farmers. In this way, the investment helped set up a short supply chain in the fresh fruit sector in the region.



Additional sources of information

n/a