

Investing on greenhouses and setting up an irrigation system

EAFRD-funded projects

A young female farmer invested in the construction of greenhouses and an irrigation system to improve her farm's profitability and mitigate production risks linked to climate change.

SLOVENIA

Farm's performance, restructuring & modernisation

Location

Šentvid pri Stični

Programming period

2014 - 2020

Priority

P2 – Competitiveness

Measure

M04 – Investments in physical assets

Funding (EUR)

Total budget 110 197.12 EAFRD 61 985.89 National/Regional 20 661.96 Private 27 549.27

Project duration

2018 - 2020

Project promoter

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Contact

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Summary

Damjana Ostanek Heric is a young farmer, whose vegetable farm is located in an area without natural water resources for irrigation. In addition, as a result of climate change, the farm is frequently affected by drought while storms are becoming increasingly frequent, particularly in the summer.



Aiming to increase her farm's competitiveness and reduce the impact of climate change on the farm, Damjana used investment support from the Slovenian Rural Development Programme (RDP) to build two new greenhouses and rebuild an existing one. She also constructed a water reservoir and installed an irrigation network.

Results

With this project, the farm gained 0.22 ha (2 216 m2) of covered area to grow vegetables. All the cultivated land on the farm is now irrigated.

Thanks to the investment the winter production of vegetables will increase by approximately 50%.

In 2018, the beneficiary's husband was also employed on the farm

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Context

Damjana Ostanek Heric is a young farmer, whose vegetable farm is located in an area without natural water resources for irrigation. The area is part of Slovenia's karst region Suha Krajina, meaning 'Dry area'. The farm is often affected by drought while storms are becoming increasingly frequent, particularly in the summer. In 2019, hail destroyed the entire summer crop of vegetables. During such events the farm faces great financial losses and so it is essential that it adapts to extreme weather conditions.

The farm has a good motorway connection to Ljubljana and Zagreb, as well as to other nearby cities (Ivančna Gorica, Grosuplje). Due to the good access to these urban centres, many young families have moved to the area. This has created new opportunities for the farm as it can now sell its products at the local market, where more and more young families ask for fresh and local quality food.

Damjana studied agronomy and horticulture an after her graduation, she stayed in her home region and started working on the farm. In 2015, she took over the farm as a young farmer. At the time, the farm was growing vegetables on 2 ha of land. Her goal was to grow vegetables on all the farm's available land and with the help of her whole family, she managed to achieve this goal in 2019.

Objectives

The investments carried out on the farm aimed to increase its competitiveness, whilst at the same time allowing it to successfully respond to changing climate conditions that affect production. These include wind, frost and excessive or lack of rainfall.

Activities

The project included the construction of new greenhouses, the reconstruction of the existing greenhouse and the installation of a private irrigation system. The irrigation system includes the construction of a water reservoir, a submersible pump and a supply and distribution network. The greenhouses are controlled from one central computer, which is also connected to a weather station. A sensor detects when ventilation is needed and when a greenhouse must be closed to protect the crops against wind or storms.

Damjana obtained the necessary documents for the

project from the competent authorities. She needed building permits and the consent of the municipality to use the land next to the public road to build the greenhouses and the 483 m3 water reservoir. The business plan and the application were drawn up by a consultant, who also guided her in obtaining the necessary permits.

The timeline of the investments is as follows:

In May 2018, Damjana started the procedure for obtaining the required permits.

On 18 July 2018, the project application was submitted.

On 27 December 2018, the managing authority issued the approval decision.

Between March and May 2019, the water reservoir was built.

In March 2019, the reconstruction of the existing greenhouse was carried out and two new greenhouses were constructed.

From June to October 2019, the irrigation system was installed.

In December 2019, Damjana submitted the payment request, and

In February 2020, the funds were paid.

Overall, the investments were implemented very quickly and according to plan. The business plan was of great help in the implementation of the investments.

Main results

Before Damjana took over the family farm in 2015, the family rented out some of their land to other farmers. Now they grow vegetables on all the land that they own and even rent some land from other farms.

Vegetables are now grown on 5.72 ha of land, of which 0.56 hectare (5 581 m2) are covered areas. With this project the farm gained 0.22 ha (2 216 m2) out of 0.56 ha of covered area. All the cultivated land is irrigated thanks to the system installed.

As a result of the investments, it is expected that the winter production of vegetables will increase by approximately 50% and that the income generated in winter will match the farm's income in the summer. This will be achieved by growing vegetables out of season and selling them at higher prices.





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In the greenhouses, Damjana grows winter vegetables including lettuce, spinach and lamb's lettuce. Later on, she intends to grow, radishes, onions, cabbages, cauliflowers, broccoli and kohlrabi.

In 2018, her husband was also employed on the farm. As they are both young and forward looking they are continuously setting themselves new challenges.

The irrigation system is essential during the winter. Due to climate change, winter temperatures are higher than before. Consequently, the farm can grow vegetables throughout the wintertime, which was not feasible a few years ago. However, higher temperatures during the winter cause higher evapotranspiration therefore efficient

irrigation is essential. In general, greenhouse cultivation depends on irrigation systems.

In addition to the main activity, the farm also carries out a secondary activity. The excess seasonal produce is processed into final products (conserved vegetables) and is sold later, for example in winter. In this way, the farm uses all the produce and has a financial safeguard without any wastage.

By growing vegetables in greenhouses, the farm can also survive adverse weather events. In 2019, when part of the crop was lost due to hail, the added value of this secondary activity saved the farm's financial situation.



Additional sources of information www.youtube.com/watch?v=x1VE5CShaLl

