

SLOVENIA

Biodiversity restoration, & preservation & enhancement

Location

Izola

Programming period

2014 – 2020

Priority

P4 – Ecosystems
management

Measure

M10 - Agri-environment-
climate
M11 – Organic farming

Funding (EUR)

Total budget 6 819
EAFRD 1 742 (M10)
3 713 (M11)
National/Regional
436 (M10)
928 (M11)

Project duration

2015 – 2019

Project promoter

Beno Bajda

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An example of sustainable cultivation of olive trees and extraction of olive oil using innovative ultrasound techniques.

Summary

The organic farm owned by Beno Bajda has over 1 000 olive trees across a 3.7 ha area in the Municipality of Izola. The firm is helped by advisory services to protect the groves against olive fruit fly attacks. Prior to the project, it incurred significant costs for plant protection products.



Entering the RDP Agri-environment-climate measure (AEC measure), allows the farmer to apply sexual confusion and disorientation methods to control the population of pest flies, using pheromones and sticky traps. The farmer also monitors the fly population on a daily basis, enabling preventive actions to be taken as needed. This approach has reduced expenditure on protection products, as well as cutting time and effort needed to control fruit flies. It has also improved product quality.

Results

The farm made a net profit of EUR 12 500 in 2016, increasing to EUR 14 000 in 2017.

The farm has won several international awards for its olive oil, including the Extragold medal Biol Novello 2017, the Extragold medal Biol 2018, and the Silver medal Olive Japan 2018 (from the Olive Oil Sommelier Association of Japan).

The innovate procedure of oil extraction with ultrasound is less time-consuming (from 45 to 30 minutes), requires less energy (-20 %) and brings better quality of olive oil that contains more antioxidants (+ 30 %) than the usual cold extraction.

Context

The organic farm owned by Beno Bajda has over 1 000 olive trees across a 3.7 ha area. It is located in the villages Grbci, Šared and Jagodje, in the Municipality of Izola.

Olive fruit fly attacks are a common problem for the sector. Attacks by the insects may occur at different times, depending on the micro-location. Where in the grove the attack occurs also has a significant bearing on its impact.

Mr Bajda informs other local olive farmers of the results of daily monitoring of fruit fly numbers, so that they can work in concert with him. Coordinated action over a larger area increases the efficiency of protection against olive fruit fly attacks. This results in better quality of products and following processing, of olive oil.

Objectives

The project holder wants his produce and products to be healthy and of good quality; this is why he focuses on organic production and processing.

Activities

In order to successfully control the pest population while applying organic production, it is vital to monitor the olive groves daily and if necessary, to take preventive action. The farmer and the advisory service use pheromone traps to determine the location of olive fruit fly outbreaks. The type used by the advisory service are monitored weekly, while those used by the farmer are checked every morning. Prompt action is very important to organic olive oil production, since it is not possible to carry out curative actions, only preventive. Fly attacks on the olives must be contained as soon as possible.

When a trap contains a critical number of flies, a clear sign of an upcoming attack, the farmer immediately sprays a suitable permitted product on one twig on the side of the tree which is at risk of being attacked. In the local area, that is usually the east side of the grove. The farmer then sprays twigs without fruit on the external trees on the terrace. This enables predators, i.e. natural enemies of the olive fruit fly, such as ladybirds and other insects, to be active in the olive grove.

Although spraying may have to be done manually, the method requires only 10 litres of prepared spray per hectare, saving time, energy and money.

In order to participate in the measure the farmer had to take the following steps:

- a preparatory training course consisting of six hours of lectures on organic farming;
- obtain (and renew annually) a certificate of organic production and processing;
- prepare an activity programme for the farm covering the five years of the project;
- six hours of training annually on organic farming topics; and
- allow a visit by an agricultural adviser once in the course of the project. The adviser will check how the activities are implemented and offer advice to the farmer.



Main results

The main result of the work carried out under the 2014-2020 RDP measures is the significantly improved quality of the farm's olives and olive oil.

The olive groves consist of approximately 1 000 trees, including 400 young trees, producing on average 10 tonnes of olives per year. The farmer manufactures around 1 500 litres of extra virgin olive oil per year. This is sold direct to customers at the farm.

The farm made a net profit of EUR 12 500 in 2016, increasing to EUR 14 000 in 2017.

The farm has obtained a certificate (Bureau Veritas) of organic production/processing of agricultural and food products, and the official EU organic food product label. It has also obtained protected designation of origin (PDO) status for its products. The olive oil has won several international awards, including the Extragold medal Biol Novello 2017, the Extragold medal Biol 2018, the Silver medal Olive Japan 2018 (The Olive Oil Sommelier Association of Japan).

The olives are harvested at the right time to ensure optimum maturity during the oil extraction process and the highest possible content of antioxidants in the oil.

The farm has and patented (in Slovenia) a new oil extraction technology without thermal treatment. This method, using ultrasound, means extremely cold extraction – the pulp is not heated at all. This has several benefits in comparison with conventional cold pressed olive oil (in which the olive pulp is heated to 27°C):

- Processing time is reduced by 20 minutes;
- 20% energy saving; and
- up to 30% more antioxidants in the olive oil.

The farm has joined the Association of Olive Growers of Slovenian Istria. Olive fruit fly attacks are a common problem for the sector. Attacks by the insects may occur at different times, depending on the micro-location. Where in the grove the attack occurs also has a significant bearing on its impact.

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Additional sources of information

n/a