

BULGARIA

Restructuring and
developing physical
potential and promoting
innovation

Location
Letnitsa

Programming period
2007 - 2013

Axis / Priority
Axis 1 Improving the competitiveness of the agricultural and forestry sector

Measure
M121 - Modernisation of agricultural holdings

Funding (EUR)
Total budget 200 386
EAFRD 46 401
National/Regional 11 600
Private 142 385

Project duration
2015 – 2015

Project promoter
Hristo Hristov

Contact
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EAFRD support was used by a farmer to invest in precision farming and become more productive and comply to the needs of his long term client, a research institute.

Summary

A medium size farm in Bulgaria specializes in the production of grain crops. Half of its land is used for field trials of seeds and plant protection products in cooperation with a research institute. The farmer needed to upgrade his equipment as to be able to better comply with the prescribed trial methodology for the trials.

EAFRD support helped the farmer to purchase the new machinery and equipment for precision agriculture and the trials. Funds from measure M121 was used for purchasing a tractor, a GPS navigation kit, a computerized device for precision seeding and fertilizing, a plow and other inventory. Also training of personnel was carried out on how to use the new equipment.



Results

- 3% to 7% less inputs of seeds, fertilizers, plant protection products are needed;
- Less waste and losses due to mechanical failures;
- Higher reliability of the field test was achieved;
- The income from the trial parcels increase due to faster seedling turnover and improved yields;
- One new job was created.

Lessons & Recommendations

- ❑ Without the security of this long term cooperation with the research institute the farmer would have never taken the risk and cost of this investment.

Context

Hristo Hristov operates his farming activity in the small rural municipality of Letnitsa from Lovetch district, situated in the North West Planning Region of Bulgaria. Mr. Hristov produces traditional for Bulgaria grain crops – wheat, maize, sunflower, rapeseed, on 100 ha total arable area.

Half of the area is dedicated to agricultural trials where seeds from new varieties and new plant protection products are tested on parcels of 2 to 5 ha before being recommended for placement on the market. The trial tests are conducted on the basis of contract with a research entity - Eurofins Agrosience Services, which provides the seeds for the tested varieties, the plant protection products and the methodology for carrying out the field tests.

In 2014 the holding has carried out 74 trials of which: 17 fungicide tests, 16 insecticide tests, and 41 herbicide tests, and the remuneration for Mr. Hristov's work was calculated at almost 26000 EUR.

Objectives

The main objectives of the project were associated with upgrading the productive assets of the holding and increasing the efficiency in using the trial inputs – seeds and plant protection products.

This would allow for greater control and higher quality of field trials.

Additional beneficial effects were expected in improving the working conditions and raising the quality of the produce.

Activities

The project was realized in just 11 days of November 2015; it was a simple project associated with the purchasing of machinery and equipment for precision agriculture and agricultural trials. Support from measure M121 of the Bulgarian rural development programme was used for purchasing a tractor, a GPS navigation kit, a computerized device for precision seeding and fertilizing, a plow and other inventory. Also training of personnel was carried out on how to use the new equipment.

The new tractor, equipment and inventory allowed him to gain better control on the fieldwork, improved the precision with which to carry out the field tests, increased the efficiency in using the inputs, reduced the wastes and the losses from the everyday operations.

Results

Mr. Hristov had the opportunity to use the new equipment only in 2016, but he was still satisfied to see that the new machinery and equipment lead to:

- 3%-7% less inputs of seeds, fertilizers, plant protection products;
- less waste and losses due to mechanical failures;
- faster – one night replacement, of the failed trials;
- higher reliability of the field test due to the ability to follow more strictly the prescribed methodology;
- higher income from the trial parcels, as it was possible to carry out faster seedling turnover, as well as improve the yields per area;
- the holding was able to create one new job place.

Lessons

It was crucial that Mr. Hristov had established a long-term working relationship with a research firm, who was providing both the inputs as well as the methodology for carrying out the trials. Without the security of this long term working relationship he would have never taken the risk and cost of this investment.



“Upgrading the grain production combined with comparative variety testing and PPPs selection trials is my way ahead.”

Beneficiary