



Brandoni family farm - pioneering precision farming in central Italy

An arable family farm invested in precision agriculture to improve production and secure their position in the market.

EAFRD-funded projects

Location: Recanati, Italy

Programming period: 2014-2020

Priority: P2 - Competitiveness

Focus Area: Farm performance, restructuring & modernisation

Measures: M04 - Investments in physical assets

Funding:	Total budget	654 292.00 (EUR)
	EAFRD	114 769.00 (EUR)
	National/Regional	151 394.00 (EUR)
	Private	388 129.00 (EUR)

Timeframe: 2018 to 2021

Project promoter: Agricolto Brandoni snc

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Summary

The Brandoni family farm grows arable crops on 400 ha of land in the central Marche region. In order to maintain their position in the market they decided to improve their production both in terms of quality and quantity. For this purpose, CAP investment support was sought to help purchase machinery and equipment including a GPS-equipped tractor, precision sowing machines, and sensors.

Project results

The average yields on the farm are higher and more constant compared to neighbouring farms.

The crops are free from diseases (e.g. toxins) and chemical residues.

A 25% reduction in the use of inputs.

Lessons & Recommendations

Most of the new equipment needed to be adapted to the farm's conditions, and many specific small technical problems needed to be

solved. Also, the four full-time farm employees needed time to become fully capable of operating the precision agriculture equipment and machinery.

Context

The Brandoni family farm is located in the low hills of the central Marche region. Since the 1950s, they have slowly enlarged their farm from 40 to nearly 400 hectares - including some leased land. More recently, the family farm began testing precision farming techniques to help improve their business.

Objectives

Investing in precision agriculture to improve farm management by:

- increasing the productivity of crops (wheat, corn, sorghum, peas);
- improving sustainability, especially through the reduction of input use (fertilisers, water, pesticides);
- increasing competitiveness and maintaining their market position;
- expanding the use of innovative solutions and equipment;
- increasing resilience by building the farm's capacity to face and overcome problems and emergencies (technical and economic).



Activities

CAP co-financing enabled the purchase and the tailored adaptation of the following equipment:

- two precision sowing machines, equipped with GPS for precision planting;
- a tractor, also equipped for precision planting;
- several sensors and computer-controlled equipment for precision agriculture;
- a new storage facility.

These purchases allowed the family to carefully map the entire property in terms of soil quality (e.g. texture, water content, etc), therefore enabling production processes to allocate, with 2cm precision, every input required (including water, which is distributed via drip-irrigation).

Main results

- Improved quantity and quality of the crops. The average yields are higher and more constant compared to what is usually obtained in the surrounding areas. The crops are also free from diseases (e.g. toxins) and chemical residues.
- Precision agriculture helps prevent spray-drift and over-use of chemicals. The precise assessment of the plant's needs at every stage of their life allows the farmer to provide the exact inputs. A 25% reduction is estimated compared to previous years.
- Precision agriculture has improved the monitoring and control of all farm operations.

Key lessons

Most of the new equipment needed to be adapted to the farm's conditions, and many specific small technical problems needed to be solved, e.g. when dealing with electric and electronic appliances. The four full-time farm employees needed time to become fully capable of operating the precision agriculture equipment and machinery.

Despite so many years of experience in farming, the family needed to engage external experts and advisors to support them in outlining a plan for this large-scale shift to precision farming.

“We are very satisfied about the overall quality level of our produce that precision farming allows.”

Agricolt Brandoni snc

Additional information:

n/a



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