

## ITALY

# Water use efficiency

**Location**  
Tuscany

**Programming period**  
2014 – 2020

**Priority**  
P5 - Resource efficiency & climate

**Measure**  
M16 – Cooperation

**Funding**  
Total budget 490 570 (EUR)  
EAFRD 142 005 (EUR)  
National/Regional 187 321 (EUR)  
Private 161 244 (EUR)

**Project duration**  
2016 to 2018

**Project promoter**  
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CAP-funded cooperation catalyses more and better organic production in Tuscany.

## Summary

Organic production was improved by CAP funds in Italy that were used by a partnership of 16 farms, three agri-food firms, three R&D centres and two producers' consortia. These applied cooperative principles to test innovative actions and solve challenges which collectively resulted building the capacity of farmers to provide value chains with more and better organic products - for domestic and trade markets.



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## Project Results

- Agri-food producers reduced the use of certain pesticides by 30%.
- Watermelon producers reduced their consumption of nitrogen fertilisers, water, and energy by an average of 20% compared to conventional farming methods.
- The farms involved in the project gained an average price increase of 20% compared to conventional production.

## Lessons & Recommendations

- ❑ CAP funded cooperation projects can play key roles in establishing value chains in the organic sector by bringing together stakeholders who did not collaborate before.
- ❑ The project demonstrated that a lack of interest in and support for the organic sector, on the part of large-scale retailers, can be overcome as soon as an integrated supply chain has been established.

### Context

Although Tuscany is well known for its high-quality agricultural products, its organic fruit and vegetables sector is not as well developed as its wine and extra-virgin olive oil production. Despite the great potential for organic fruit and vegetables, only a few farms were active in this market and there was no integrated value chain.

In this context, it was considered useful to bring together relevant stakeholders and develop the sector by: testing new techniques that can monitor the impacts of climate changes; reducing the use of water, energy, and fertilisers for cultivation; improving processing and packaging; as well as seeking to improve the logistics of storing and transporting fruit and vegetables within the region.

### Objectives

This cooperation project aimed to improve sustainability and quality within the Tuscan organic fruit and vegetables sector, as well as strengthen supply chains for these organic products.

### Activities

The project partnership included 16 farms, three agri-food companies, three research and development centres, and two consortia of producers. The activities involved setting up and testing a new model for providing capacity building support to the region's organic sector. This involved the following actions

- Design and set up an agrometeorological monitoring scheme to optimise the use of agrochemicals and other phytosanitary interventions on plants. The project developed an online platform to provide advice to farmers on how to apply agro-chemicals, based on the data retrieved by the four meteorological stations.
- Design and conduct experimental field tests on innovative practices for controlling plant diseases and pests, and for reducing water.
- Design and test new practices for improving the traceability, transportation, and packaging of products to improve their quality. This involved carrying out 1904 quality tests on production and four conservation trials for production at different temperatures and using different methods.
- Conduct a feasibility study to assess different options in logistics concerning economic and environmental sustainability. The project issued guidelines on how to save costs and energy when transporting produce from farms to storage units. Data were collected in 16 partner farms and the study investigated how to improve logistics to serve international markets (e.g. Hong Kong and Dubai).
- Organise and deliver a communication and dissemination campaign which included four technical workshops, six study visits, four scientific articles, setting-up of a dedicated web site, publishing various press articles, one video and one digital manual.

### Main Results

- The project's farms reduced their consumption of nitrogen fertilisers, water, and energy in watermelon production by 20% on average, compared to conventional farming methods.
- The project optimised production practices that can lead to a reduction of up to 30% in the use of some pesticides (which are approved for organic farming).
- All farms involved in the project signed a contract to collectively sell 4 500 tonnes of their produce (under two specific labels) through a single value chain partner (representing about 40% of the value chain partner's total turnover).
- The average price gained by the farms increased by 20% compared to conventional production.

### Key lessons

The new value chain's success demonstrates that cooperation projects can link different stakeholders who were not collaborating before.

Large-scale retailers are likely to invest more readily in the organic sector once integrated organisational approaches in the sector's supply chain are established.

For the future, the partnership is planning to involve other farmers whose land is being abandoned due to the poor profitability of other crops. In addition, they intend to set up more greenhouses since under controlled conditions, producers can more effectively manage the use of water and chemicals.

*"If we manage to pursue a true value chain approach [then] excellent results will come. And we can trouble shoot problems more easily"*

*Stakeholder*

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### Additional sources of information

[www.agronica.it](http://www.agronica.it)