

Negro Farm, Piedmont, Italy

2018 Report



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In this report:

- The Negro Farm at a Glance
- Spreading the model
- 2018 activities
- Plans for 2019

The Negro Farm at a Glance

The Negro farm was added to the INTERRA Farm Network family in 2016. Despite having worked with Syngenta Italy for many years, the farm has only recently taken part in this project and many activities to improve the sustainability of farming operations were carried out in 2016.

The Negro family has been cultivating vineyards on the Roero hills since 1670, enhancing this beautiful landscape through the production of fine wines from native grapes: Favorita and Arneis (white fruit); Nebbiolo, Barbera, Bonarda, Dolcetto and Brachetto (red fruit). Numerous awards testify the quality of these wines that are produced with care and passion by Giovanni and Marisa Negro, together with their sons and daughters Gabriele, Angelo, Emanuela and Giuseppe. Syngenta has been working with the Negro Farm for many years.



Area farmed	70 ha (Monteu Roero, Canale, Neive, Serralunga)
Staff	Family run
Location	Monteu Roero (CN) - Piedmont Region - Italy
Typical climate (average temperature)	Winter - 6° C (min) / 7° C (max) Summer - 14° C (min) / 33° C (max) Annual rainfall - 800 mm
Soil type	Alluvial origin calcareous soil
Farm enterprises	Grapevine
Focus areas	Safe use and storage of Crop Protection products (mixing/loading/washing area); HELIOSEC and safe disposal of waste; Biodiversity enhancement (OPERATION POLLINATOR); Soil Health; Communication, training and demonstration.

“The family management business allows to join old and new generations, tradition and new experiences. In keeping with this approach, joining the network INTERRA Farm Syngenta has enabled the development of projects aimed at maintaining the highest quality of wines responding to the growing need for sustainability and respect for the land.”

Negro Family



Spreading the model

Biodiversity and soil management

The relationship between Syngenta and Negro family has evolved from pure technical support for grapevine production to the inclusion of key solutions to enhance the sustainability of their farm. **The Negro family has always been very committed to develop sustainable solutions in their vineyards.** The starting point of the project was the implementation of a field margin with OPERATION POLLINATOR and the provision of HELIOSEC within the Grape Quality Agreement program.

The Negro family is very open to test different agronomic practices, including the use of inter-row cover crops. In one part of their vineyards, they implemented a special drainage system to reduce soil erosion during heavy rainfalls that are becoming more frequent due to climate change.

These activities made Negro farm an important example for sustainable farming operations in the area.

Since its implementation, the INTERRA Farm model was effective to enhance the sustainability of the Negro farm providing a new benchmark for farmers and institutions on sustainable wine growing in the area.

Multifunctional field margin with **OPERATION POLLINATOR**, cleaning platform connected with **HELIOSEC** device, storage facilities improvement, **Runoff Tool** development, are now integral parts of the farm structure.





HELIOSEC device



Runoff Tool final report example

All technologies and activities were also fully functional to support the **Grape Quality Agreement (GQA)** certification program for 2018, embedding sustainable use in the quality target.

With the “Grape Quality Agreement”, Syngenta commits to support grapevine growers through the application of a dedicated spray program, related technology and know-how to meet growers’ identified market access requirements with respect to quality and residue levels



Grape Quality Agreement certificate

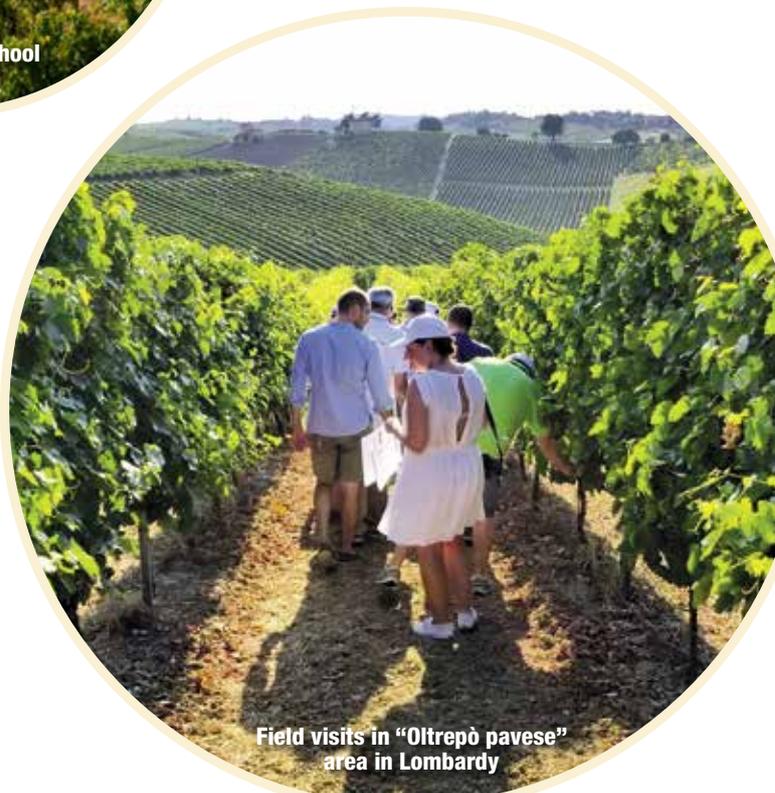
After the successful deployment of INTERRA model in Negro farm, the activity was aimed at spreading the model in other important realities of the area, enhancing the network effectiveness and introducing some new solution with the help of our partners (Padana Sementi Elette and Cascina Pulita).

New node for the network

To reach a broader audience, and promote the culture of the sustainable use, we have implemented the model in the experimental farm of the Wine School / Institute of Higher Education in Alba (CN - Piedmont Region). In this context, we trained a large number of high education students and local farmers. At the first presentation of the project, we had the opportunity to meet 380 people, a tremendous opportunity to share Best Management Practices (BMPs) and demonstrate the effectiveness of our technologies (mixing and loading device, cleaning platform, HELIOSEC, multifunctional landscape OPERATION POLLINATOR new mixes).



INTERRA Farm model was also shared with growers in other Italian's regions of North-West ("Oltrepò pavese" and "Franciacorta" areas in Lombardy and Piacenza in Emilia Romagna) during meetings and field visits linked to new product launches or Grape Quality Agreement contracts.



2018 activities

New technology for circular economy

Our partner Cascina Pulita, a leading company for waste management in Italy, has developed a new proprietary solution that promotes circular economy in agricultural empty package management. Cascina Pulita collects empty cleaned plant protection product containers and recovers the plastic containers into flakes of High-density polyethylene (HDPE) of various colors. Plastic production companies can then reuse this material after the cleaning and compliance check. One typical use of recycled material is the production of rigid HDPE pipes for irrigation or water recovery.



Recyclable pellet after processing



Inter-row cover crop in Marsaglia farm

Cover crops on vineyards against soil erosion

Thanks to our partner Padana Sementi Elette, a seed company with high know-how, a specifically designed cover crop mix was sown in a new vineyard in the Marsaglia farm to prevent soil erosion. We have already worked together with them in the development of new OPERATION POLLINATOR mixes. The farm is characterized by a light textured soil (very high in sand), making it prone to soil erosion. The control of soil erosion is key in Piedmont region, where vineyards are frequently established on steep slopes.

Regarding soil management practices in the Negro farm, the benefits of inter-row growing of green manure crops were also experienced.



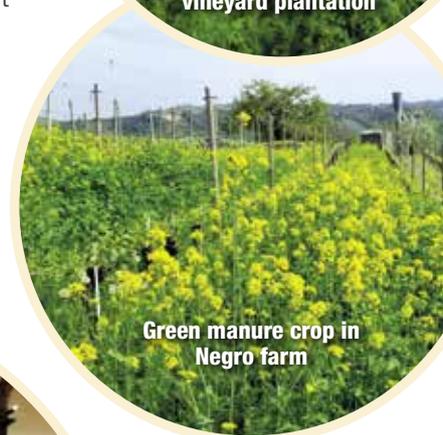
OPERATION POLLINATOR to avoid soil erosion before new vineyard plantation

Multifunctional features of OPERATION POLLINATOR

During a new product launch event, Prof. Alberto Alma shared the results of the DISAFA (Turin University) research on OPERATION POLLINATOR (biodiversity, disruption of migrators corridors, runoff/soil erosion) to the most important Piedmont's grapevine technical advisors and consultants.



Meeting with DISAFA



Green manure crop in Negro farm

2019



Plans for 2019

- Promote a new **on-farm advanced risk management**, integrating new analysis with Geographic Information System (GIS) technology support.
- After the finalization of the **Runoff Tool App**, deploy this diagnostic tool within the technical networks and start the development of the **Leaching Tool** module, in order to raise awareness about the link between healthy soil and clean water.
- Continue to develop and test **Green Cover Crops** in the inter-row of the vineyard to protect the soil (runoff and erosion) after planting of new vineyards.
- In partnership with Cascina Pulita company, promote the technology to recycling empty packages as practical example of **circular economy**.
- Continue the activity of **INTERRA Farm model dissemination** both internally to Syngenta and externally to all relevant stakeholders.



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