

The network of AIAF demonstrative farms: the example of the "Casaria" farm

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Abstract
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Abstract:

The Italian Association for Agroforestry (AIAF) is the organization that represents EURAF in Italy and promotes knowledge, implementation and the enhancement of both traditional and modern agroforestry systems at all levels.

Since its establishment in 2013, AIAF paid particular attention to the creation and recognition of a national network of demonstrative farms, with the following purposes:

- to show on the field, at a real scale, the countless examples of agroforestry models to involve farmers, technicians and public officers in their economic, environmental and social validity;
- to offer research sites and innovative transferable opportunities to research centers, public agencies, Universities, etc.

AIAF affiliated demonstrative farms can be both private and public, with preference for the first, due to the strong impact that their example has on other farmers. They are identifiable through a logo that also allows to enhance their role, products and services. AIAF is progressively identifying demonstrative farms in several Italian regions in order to achieve a full coverage on a national scale, connected to the European EURAF network (see <http://www.eurafagroforestry.eu/about/agroforestry-map-europe>).

There is an agreement between AIAF and the owners of the demonstrative farms that regulates mutual obligations:

AIAF is committed to: (i) transfer to farmers the best practices and the latest technical and scientific knowledge to set up and manage the agroforestry systems; (ii) encourage the participation of the demonstrative farms in various joint projects; (iii) promote the public image of the demonstrative farms.

The owners agree to: (i) maintain the agroforestry systems in the long term; (ii) manage the farm and the agroforestry land in a proper way and promote the distinctness and advantages of this agricultural model; (iii) host technical visits and educational activities; (iv) allow hosting research and innovation transfer projects; (v) promote agroforestry models in any other form.

The "Casaria" farm in Masi (Padua, Italy) is a private farm covering about 100 ha of agricultural land, and was the first AIAF demo-farm, still hosting the Association's official headquarter. Since its establishment (2012), the farm started to realize a first set of silvoarable system which has been gradually enlarged. At this time, the silvoarable covers over the 90% of the UAA.

The farm is located in the southern part of the Padua province, between the Adige and Gorzone rivers, in a stretch of plain reclaimed in recent times ('30s), characterized by loamy soils. The drainage of the waters is mechanical and the entire surface is covered with a regular system of drainage ditches, typical in the Po-Veneto plain. In the "Casaria" example, it consists of regular rectangular fields 40-m wide and 450-long. A large part of the cultivated area of the farm is covered with arable land (soybean, wheat, barley, sunflower, sugar beet) and alfalfa, in regular rotation under organic management. Rows of poplars (*Populus x euroamericana*, I214 clone) and oaks (*Quercus robur* L.) are planted along the ditches, regularly alternated every 5 m (10 m between each plant of the same species). Both species are grown for the production of high quality timber. The scheduled cutting time of poplars is 10 years while that of oak is 40 years. It is expected that after cutting, the poplars will be replanted along the same row for at least a second cycle, to leave only the oaks to grow.

The agroforestry system is integrated with a network of rural hedges that border the farm towards the Gorzone river to the north, and separating it from the neighboring farms.

The tree row-ditch system covers a strip of about 2 m in wide, managed with recurring mowing, supporting the establishment of a rich wild flora and fauna. A special focus is dedicated to the new establishment of honey plants as the farm produces organic honey too.

An intense teaching and demonstration activities take place periodically at the farm, also promoted by AIAF. The transfer of innovation is always supported by the active participation of the owner, who directly illustrates the reasons for their technical choices and the results of his activities to technicians and other farmers, providing technical details on the management of their agroforestry system.

The Casaria farm also hosts a rich research activity conducted in collaboration with Veneto Agricoltura (the Veneto Agency for Innovation in the Primary Sector), the CNR IRET of Porano, the Department DAFNAE of the University of Padua.

Different research activities conducted by the University of Padova (DAFNAE department) and CNR IRET aim to identify and quantify the multiple interactions between trees and intercrops and their effects on the crop growth and development in relation to available solar radiation and soil water and nutrient contents (Paris et al. 2017; Paris et al. 2018). Other research projects are focused on the stakeholder involvement in agro-forestry (Camilli et al. 2015).

The Casaria farm gives great emphasis to the fact that its products (honey, pasta, flour, etc.) come from a modern silvoarabile system that refers to the ancient system of the "Piantata Padana" (Ferrario 2019), translated into its motto "back to future" (see <https://www.aziendacasaria.it/2019/07/02/back-to-the-future-agroforestry-systems/>).

References

Camilli F, Pisanelli A, Dalla Valle C, Franca A, Seddaiu G, Bondesan V, Rosati A, Paris P, (2015) L'approccio partecipativo alla ricerca per lo sviluppo di pratiche agroforestali innovative: quattro casi studio del progetto AGFORWARD. In: Abstract-book, 10th SISEF National Congress "Sostenere il pianeta, boschi per la vita - Ricerca e innovazione per la tutela e la valorizzazione delle risorse forestali" (Travaglini D, Rossi P, Bucci G eds). Firenze (Italy) 15-18 Sep 2015. Paper # 10.14.10. [online] URL: <http://www.sisef.it/sisef/x-congresso/>

Ferrario V (2019) Letture geografiche di un paesaggio storico. Cierre Edizioni, Verona.

Paris P, Lauteri M, Ciolfi M, Chiocchini F, Leonardi L, Cherubini M, Spaccino L, Dalla Valle C, (2017) Lessons learnt: Trees for timber with arable crops in. Report for Agforward Project, <https://www.agforward.eu/index.php/it/alberi-per-la-produzione-di-legname-di-pregio-in-sistemi-arabili959.html>.

Paris P, Dalla Valle C, Sangiovanni M, Facciotto G, Chiocchini F, (2018) Piantagioni agroforestali di pioppo per l'industria. L'esperienza del Progetto AGRFORWARD. *Tecnico&Pratiko*, 135: 29-31.