



ECCELLENZA
PIEMONTE



agrimon

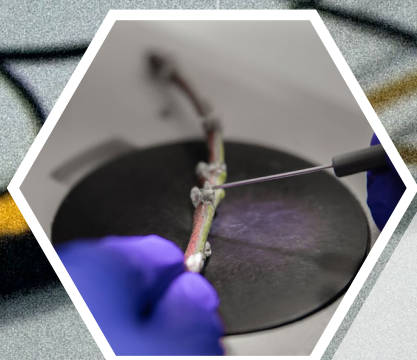
Coltiviamo il futuro:
Ricerca e Innovazione.





The Foundation for Research, Innovation and Technological Development of Piedmontese Agriculture - Agrion is the regional research and experimentation center recognized and included in the list of **national research institutions** whose statutory object is the performance and promotion of scientific research activities (Prime Ministerial Decree referred to in Article 14, paragraph 1, Legislative Decree of 14 March 2005). It was founded in **2014** by the will of the Piedmont Region and Unioncamere Piemonte, **"Founding Members"** with the aim of promoting and carrying out research, innovation and technological development of Piedmontese agriculture. In **2015** the Foundation incorporated the two centers, CReSO and Tenuta Cannona, operating respectively in the fruit and vegetable supply chain and in the wine sector, thus creating a single body aimed at strengthening the experimentation system applied in the agri-food sector. Following this merger, the Producer Organizations, the Agricultural Professional Organizations and other representative subjects of the Piedmontese agri-food chain have become part of Agrion, as **"Participating Members"**.

RESEARCH



SUSTAINABILITY



INNOVATION

RESEARCH

The Foundation carries out **RESEARCH** activities in the agri-food sector, with particular regard to the issues of production quality and the sustainability of agri-food techniques and technologies. The innovation and research activities are aimed at the economic, social and cultural growth of those involved in the supply chains, professional training, as well as the development of the agricultural system, with particular reference to interconnections with the environment and in harmony with the protection and enhancement of the Piedmontese territory. In line with the statutory dictates, the Foundation performs a precise function, consisting in applied research, that part closest to turning into innovation. It does not overlap with other entities on the regional territory: it occupies its own position, in a range between applied research and technology transfer. It will be essential to allocate more resources to applied research: investing in innovation and new technologies will be the key strategy to tackle future challenges.

INNOVATION

Agrion's activities focus on development paths that guarantee continuous innovation for the improvement of the quality of agriculture, understood in terms of environmental and economic sustainability, sensory and nutritional quality, food security. The Foundation aims to promote the integration of knowledge from different fields and stimulate synergies with the world of research, with the aim of ensuring timeliness in the transfer of results. By participating in various working groups at national and European level, Agrion helps to bring the latest technical innovations to the territory in order to face current and future challenges more effectively, continuing to support farmers to promote an agricultural sector that is competitive at a global level.





SUSTAINABILITY

SUSTAINABILITY has always been one of the fundamental values for the Agrion Foundation, whose goal is to allow farmers to obtain the highest quality of production with the lowest possible environmental impact. To achieve this goal, research and innovation at the service of agriculture, to which Agrion works every day, are increasingly central, intervening with innovative solutions that can be used by everyone, technicians and producers, so as not to sacrifice the quality level of production and to respond both to the challenges of climate change and to the sustainable containment of phytosanitary emergencies.

THE BRANCHES

Agrion carries out applied research directly at its **four centers** – **Manta, Boves, Cravanzana, and Carpeneto** – and conducts trials on farms in collaboration with field technicians. At the same time, it provides continuous support to the agricultural advisory sector, fostering synergies at **regional, national, and international** levels to ensure the timely transfer of results to the field.

MANTA

The **fruit growing center** is located in Manta (CN) and consists of two laboratories: one dedicated to agronomy, pathology, and entomology, and the other focused on pomology and fruit quality. The branch is distinguished by over 7 hectares of experimental field plots.

BOVES

The **experimental center for horticulture, strawberries, small fruits, and chestnuts** is located in Boves. It includes a laboratory for qualitative and quantitative analyses and 5 hectares of experimental fields.

CRAVANZANA

The **experimental center for hazelnut cultivation** is located in Cravanzana (CN). Its research and experimentation activities primarily aim to provide hazelnut growers with tools to improve the environmental and economic sustainability of hazelnut farming.

CARPENETO

"**Tenuta Cannona**" is the **experimental center for viticulture** and is located in Carpeneto (AL). The branch is distinguished by its experimental winery, dedicated to micro-vinifications, as well as activities related to hazelnuts, almonds, and cereals.

HOW AGRION WORKS

The Foundation acts as a connecting body between the needs of the territory and the intuitions of research. Agrion relates “down-stream” by collecting the questions and needs expressed by the supply chains and starting from these, it plans its activity. Thanks to this link, the experimental activities are focused on the most urgent and topical issues, but also in a context of strategic vision expressed by the operators in the sector. The Foundation operates using a simple but effective scheme, which allows to group the best technical-scientific skills that are concentrated in dedicated Operational Groups (Universities, CREA, CNR, Regional, National and International Research Centers).





VARIETAL INNOVATION

A development process that **introduces new varieties**, increases the competitiveness of sectors, reduces the negative impacts of climate change on agricultural systems, and ensures production with high quality and productivity standards.



CULTURAL TECHNIQUE

It refers to the **“good agricultural practice”**, which is constantly updated. It involves implementing new tools to improve the efficiency, quality, and sustainability of production.



SUSTAINABLE PROTECTION

In other words, **producing quality while respecting the environment**, providing solutions to the significant global changes underway.



SUPPORT IN THE GREEN TRANSITION, IN SUPPORT OF THE PRODUCTION SUPPLY CHAIN

Working in synergy for a resilient, sustainable, and competitive agricultural sector.



CONFERENCES AND TECHNICAL MEETING

In agriculture, it becomes essential to promote moments of exchange and discussion, design training and technical and managerial update pathways, encourage territorial networking (building connections), and foster the creation of multidisciplinary working groups.

agrión



NUOVE AREE DI SVILUPPO



New technologies are becoming increasingly decisive in agriculture. They were created to be functional and facilitate the resolution of practical problems, optimizing business operations through well-defined operational strategies. The focus is on promoting the creation, sharing, and application of new knowledge, technologies, products, and new ways of organizing, learning, and cooperating.

The goal is therefore intelligent, sustainable, and impactful growth.

Agrion's centers are true open-air laboratories where high-tech solutions for agriculture are tested. These include Decision Support Systems (DSS) for pest management, sensors for water needs, automated irrigation, and machinery with telemetry for real-time communication. Additionally, remote sensing and satellite systems are used to map agricultural areas and optimize them.



HORTI QD

The HortiQD project helps reduce or eliminate the use of pesticides in European orchards, paving the way for sustainable agriculture and improving food quality. It aims to develop a computer vision system for precision agriculture by creating an infrared hyperspectral thermal camera based on Quantum Dot technology for orchard monitoring.



TRACTOR

The TRACTOR project aims to develop an innovative technological solution to support precision agriculture in protected environments using autonomous and collaborative rovers. The research focuses on the fruit-growing sector, specifically on blueberry cultivation in protected environments.

WAPPFRUIT

The main goal of this project is to innovate fruit farming by implementing cutting-edge technologies that enable precise water requirement assessment and full automation of the micro-irrigation system. The project aims to use commercially available sensors to measure soil matric potential, thereby indirectly determining the crop's water needs.



AGRIVOLTAICS

The Insolagrín system enables dynamic light regulation, optimizing crop growth throughout the seasons and under varying climate conditions. Excess sunlight is converted into electricity, allowing dual land use without compromises.



DIGI TREE LAB

A **living lab** in agriculture is an environment for experimentation and innovation that enables the co-creation of solutions, technologies, and agricultural practices, actively involving various stakeholders (such as farmers, researchers, entrepreneurs, startups, technicians, and citizens). It is based on the idea of testing new ideas, methods, and technologies in real-world settings to evaluate their effectiveness and field applicability.

The smart orchard represents an **open-air laboratory** where various innovative technologies applicable to agriculture are tested and experimented with, with a particular focus on apple production. The Living Lab orchard, located within the Agrion Foundation, will cover an area of approximately 2,000 m², where apple tree species from specific varietal groups such as Story® Inored, Lory® Inogo, and Gala will be planted.



Sensors for **monitoring soil and plant water status**



Sensors for **monitoring plant health status**



Drones and Rovers for measuring crop production



Machines for robotic fruit harvesting



Machines for mechanical thinning and defoliation



Smart sprayers for the distribution of pesticides

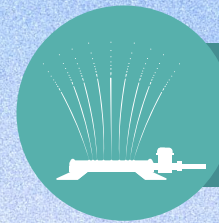


Equipment for the mechanized and automated management of weeds and turf.

DIGI VIT LAB

The vineyard was designed with the specific purpose of serving the entire wine sector of Piedmont, with the goal of promoting its sustainable development and continuous innovation. It is envisioned as an open-air laboratory where various innovative technologies applicable to viticulture production are tested and experimented with. The “Living Lab” vineyard, located in Carpeneto, will cover an area of 1.4 hectares, divided as follows:

- Approximately 8,000 m² dedicated to a new planting with the 13 most widely grown grape varieties in Piedmont.
- Around 6,000 m² of Dolcetto vineyards, already fully productive.



Irrigation systems, fertigation, and multifunctional irrigation



Fixed-point solution distribution



Robots for crop operations



Drones for plant monitoring



Rovers for field data collection



Advanced sensing technology



Predictive models for pathogens, insects, and vine growth



One of the fundamental values for the Agrion Foundation is **sustainability**.

The commitment lies in the development of advanced solutions for resilient agriculture that respects the natural balance, while ensuring food security and the well-being of communities. Through scientific research and the adoption of cutting-edge technologies, sustainable farming practices are promoted, from the responsible use of natural resources to reducing environmental impact. The goal is to support farmers and businesses with innovative tools that foster more productive, circular production that is mindful of biodiversity, contributing to a greener and more prosperous future for all.



THE THERAPEUTIC GARDEN

The project is based on creating green and floral spaces within healthcare facilities. It presents an opportunity not only to enhance these spaces but also to provide patients with a chance to recharge their energy from nature and increase their knowledge on topics related to it, such as biodiversity.



BIKE & FLOWERS



The Bike & Flowers project aims at ecological regeneration along an existing 19 km cycle path located in the Po river areas. It was created to address the global pollinator crisis, whose decline is threatening biodiversity and food security.

NATURE BETWEEN THE PAGES

The initiative aims to protect biodiversity by creating an authentic "nature lounge": a blooming oasis open to the public, designed to encourage contact with the natural environment while also providing refuge and nourishment for the insects essential to the ecosystem.



+API

It was created with the aim of promoting biodiversity in the province of Cuneo through the creation of flowering oases for bees and other pollinating insects.





Training in the agricultural sector is essential for both today's and tomorrow's farmers. The industry is changing rapidly due to increasing climate pressures and evolving market demands.

Education is not just about "updates"; it is the key to making modern agriculture more competitive, sustainable, and resilient.

Farmers who invest in training will be the ones best equipped to face tomorrow's challenges with the right tools, knowledge, and vision. From this perspective comes the idea of making the Agrion Foundation a point of reference for sharing knowledge, values, behaviors, and strategies—supporting the professional growth not only of young talents, but also of both internal and external collaborators.

GREEN CORIORTOFRUT



The project aims to facilitate the adoption of innovations in agriculture by improving information and training. It does so through technical meetings, webinars, and conferences targeted at farmers, technicians, students, and citizens. Topics include environmental sustainability, climate change adaptation, and the introduction of new technologies.

INNOAGRI

It aims to be a catalyst for innovation in the Piedmontese wine sector, combining the generation of new ideas with active listening to the needs of the region. This approach seeks to promote innovative and sustainable solutions tailored to the specificities of regional viticulture.



MONREGALESE – CEBANO FOOD DISTRICT WITH A FOCUS ON ORGANIC FARMING



The project arises from the need to further investigate certain aspects related to the cultivation of wine and olive trees in Piedmont, with particular reference to the area of the "Monregalese – Cebano Food District with a focus on organic farming." Specifically, the research activities aim to identify sustainable practices and solutions, both from an environmental and economic perspective, always with an emphasis on organic farming.



AGRION FOR LOCAL DEVELOPMENT



The Agrion Foundation **prioritizes the identification and fulfillment of the specific needs of individual hilly and mountainous areas**, aiming to establish a cooperative governance model between public and private stakeholders, based on shared decision-making principles that respect the roles and expertise of each party.

It acts as a catalyst for these territorial needs by creating real development agencies for the regions, with dedicated desks at the four experimental centers, aimed at supporting innovation in the agricultural and agri-food sectors. Through effective communication, utilizing public meetings and outreach actions, it is essential to spread the most advanced agronomic techniques to support young agricultural entrepreneurs, offering them the necessary knowledge for a more productive and sustainable agriculture.



SUPPORT AND TRAINING ACTION FOR NEW CULTIVARS IN THE GAL BORBA AREA

The project involves the creation of a technical manual with useful information for the design and future management of multi-species orchards for farmers and technicians in the GAL Val Borba area.

RESILIENT VITICULTURE

The project addresses the severe crisis in Piedmontese viticulture caused by drought and thermal stress. To counter these effects, it proposes an immediate intervention plan with the activation of a working group and the implementation of innovative solutions such as Biochar, shading nets, kaolin, and drip irrigation.



ALCOTRA GAG

The project aims to identify and support companies that are large consumers of water resources, without compromising the economic sustainability of production activities. On the contrary, it seeks to enhance their long-term competitiveness, ensuring more efficient adaptation to climate change and enabling these companies to effectively contribute to mitigating its impacts.



ATTR(A)CTIVE

As part of the project, the Agrion Foundation, in collaboration with the Cuneo Chamber of Commerce and the Chambre des Métiers et de l'Artisanat, promotes short supply chains to support the local economy. The project includes: a cross-border analysis to examine the risk and vulnerability factors affecting production, especially in the primary sector, and the development of solutions to address the identified issues, with the formulation of best practices tested in the field and disseminated across the cross-border area, even outside the project area.





FOUNDING MEMBERS



PARTICIPATING MEMBERS



INFORMATIONS AND CONTACTS

LOCAL BRANCH

EXPERIMENTAL CENTER FOR FRUIT GROWING

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TEL. 0175.1953030 / FAX 0175.1953031
Sito Internet: www.agrion.it

EXPERIMENTAL CENTER FOR HORTICULTURE, STRAWBERRY, SMALL FRUITS AND CHESTNUT

Via Albertasse n. 16 – 12012 Boves (CN)
TEL. E FAX 0171.388880

EXPERIMENTAL CENTER FOR VITICULTURE

Tenuta Cannona n. 518 – 15071 Carpeneto (AL)
TEL. 0143/85121

EXPERIMENTAL CENTER FOR HAZELNUT GROWING

Via Provinciale Valle Bormida 2 – 12050 Cravanzana (CN)

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www.agrion.it

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