Pégarou Farm
– Restoration of permanent wet meadows



Photo: ANA-CEN Ariège

Name	GAEC (Good Agricultural and Environmental Conditions) Les Croquants, Ferme de Pégarou (6 members)
Country	France
Biogeographical Region	Ariège
Region	Occitanie
Landscape/ Eco system type / protected area	Agricultural landscapes of Ariège: plains and valleys. Predominantly field crops as well as vegetable farming.
Size / Scope	32ha
Type of farm	An organic farm run by 6 farmers.
Agricultural Use	Organic farming with multiple operations: vegetable farming, grain farming, vegetable processing, egg-laying hens, bakery, and brewery.
Best-practice / main idea	Signed a rural lease with environmental clauses for a farm compatible with biodiversity. An organic and agroecological system with local roots to support biodiversity: planting hedgerows of native plants in low-lying areas and long and diversified crop rotations.
Involved Stakeholders/ Partners	- Collective settlement project on a Terre de liens farm (managing farmland as Commons).

	Terre de liens is a citizen movement that helps organic farmers by providing agricultural land to start farming. - Partnership with ANA-CEN Ariège. - Partnership with Solagro.
Duration	Farmers' collective established since May 2022.
Goals	Develop a solid understanding of supply chains and market outlets, and commit to organising workshops and/or training sessions.
Measures addressing water management	- Restoration of permanent wet meadows (degraded wetland to be restored); - Creation of ponds; - Biodiversity inventories and monitoring conducted with partners (wetland species, pollinators, birds, etc.).
Measures addressing soil management	- Soil analysis to adjust inputs and farming techniques; - Reduced tillage; - Densification of the hedge network; - Biodiversity inventories and monitoring conducted with partners (wetland species, pollinators, birds, etc.).
Funding / Financing	- € 186,500 for the purchase (through Foncière Terre de Liens) of the agricultural land; - Grants for hedge planting; - Support from the LIFE Biodiv'Paysanne (https://life-biodivpaysanne.fr/) project for assessments, the purchase of plant material, soil analysis, the creation of a pond, etc; - The GAEC des Croquants received AFAF (French Agroforestry Association) funding to purchase seedlings for hedgerows. - Funding from Payments for Environmental Services for Wetlands and Permanent Grasslands (PSE ZH-PP) from the Adour-Garonne Water Agency.
Transferability	The farm is transferable with Terre de Liens association and Safer group (A french public agency that regulates rural land transactions)
Tip / suggestion from the farmer	- Check the condition of the land and then be careful to work only on firm ground to

	maintain an even surface, which is essential for mowing. - Build a network of contacts to help with mowing if you don't have the necessary equipment and look for people who might be interested in hay, etc., if you aren't a livestock farmer. From an economic standpoint, it isn't necessarily very profitable.
Role of Landcare Associations	- ANA-CEN Ariège aided with the implementation of farm biodiversity inventory protocols and recommendations to support species life cycles. They also provided technical and financial support for the creation of biodiversity-friendly features (ponds, hedges, bat roosts, etc.). - Solagro provided an agronomic analysis and consulted the farmers. - Terres de lien coordinated communication between the initial farm owner and the organic farmers. They aim to remove the land from private ownership and return it to the public domain, ensuring its continued agricultural use.
Further information	More information on: https://fermedescroquants.fr/
Contact information	Iris Silveira Conservancy of Natural Areas of Ariege iris.s@ariegenature.fr General contact information ana@ariegenature.fr

"Our goal was to create a farm that's beautiful, and for us, that means a farm full of life: planting trees on a completely empty plain, seeing animals while we work in the fields, flowers, and so on. We love the feeling that other living beings thrive on our farm and that it's not just an empty desert (aside from the crops)!"



GAEC The Croquants, photo : Les Croquants

History of the Farm

The Croquants collective has been operating under organic farming standards on the Pégarou farm since May 2022, transforming this grain farm into a farm with a variety of operations: vegetable farming (more than 40 varieties of vegetables grown in greenhouses and in open fields using agroforestry practices, thanks to the planting of fruit trees), grain cultivation, vegetable processing, egg production, a bakery, and a brewery.

This initiative was made possible by signing a rural lease for the land between the family of the previous owners and four members of the Good Agricultural and Environmental conditions (GAEC). The GAEC, for its part, acquired the farm buildings to facilitate the construction work required for the processing workshops. Later, the family home was purchased by Pégarou, the civil society made up of the GAEC's partners.

However, the ideal outcome for the collective is for Terre de Liens, a citizen movement that aids organic farmers by providing land for them to start farming, to acquire the land. The goal is to remove the land from private ownership and return it to the public domain, ensuring its continued agricultural use. Above all, this would facilitate the farm’s transfer to future generations at a lower rental cost, thereby encouraging future farmers to settle on the property.
Following the acquisition by Terre de Liens, the farmers decided to join the LIFE Biodiv’Paysanne project and partnered with Solagro, ANA-CEN Ariège and Terre de Liens to assess the farm’s biodiversity through a combined agronomic, ecological, and socio-economic analysis of the property. This analysis revealed several key findings about the farm:

- Biodiversity specific to agricultural environments (particularly grain-field flora and birds) is present in the area;
- The farm lies on a wetland degraded by years of conventional grain farming, covering a significant portion of the farm on hydromorphic soil.

The wetland on the Pégarou farm presents a particular challenge due to its location within an agricultural plain dominated by field crops, where wetlands are rare. The increasing duration and intensity of summer droughts in the region provide further reasons to restore the functionality of this wetland. Wetlands provide ecosystem services for biodiversity and water management, including flood control, groundwater recharge, sediment and nutrient retention and transport, and water purification.

The Croquants were concerned about restoring the wet meadow, but since the GAEC is still in the process of being established, the discovery of the wetland has called their crop rotation and production practices into question. Viewing this area as productive rather than set aside allows the Croquants to integrate it into the farm's operations, even though biomass and forage production were not part of their initial plan for the farm. To enable them to meet their production goals with a reduced cultivated area, Solagro proposed several scenarios for long-term crop rotations alternating between five crops (rye or einkorn wheat, buckwheat, barley, soft winter wheat, clover or alfalfa) and intercropping.

These scenarios were made to preserve part of the wetland without disrupting the farm’s economic viability. Based on these scenarios, along with investigations conducted by ANA-CEN Ariège to determine the extent of the wetland, the GAEC decided to set aside 5 hectares for the restoration of permanent wetland grassland. Once restored, this meadow will support biodiversity specific to wetland habitats and provide the flexibility to produce high-quality hay later in the season.



The wetland on Pegarou Farm, photo: Chloe Malik

Water Management on the Farm

Following the establishment of the wet meadow restoration area, the GAEC implemented water management improvements with two objectives:

- To store water for irrigating the vegetable-growing operation;
- To prevent surface water from pooling due to the hydromorphic soil on the grain fields, thereby facilitating crop growth.

To meet the first objective, a 1,000 m^3 reservoir was excavated in 2023. The location of this reservoir is the result of a compromise between the GAEC's desire to place it as low as possible on their farm to maximise the water collection area and the need to avoid situating it within the boundaries of the currently known wetland. ANA-CEN Ariège provided guidance to ensure the pond's design would be as conducive as possible to biodiversity: preserving and spreading the topsoil layers over the surface and attempting to create less steeply sloped banks to allow for vegetation growth and wildlife movement. The pond's overflow is also positioned to discharge into the wet meadow.



Left picture: Sol analysis on Pegarou farm, photo : Iris Silveira, CEN Ariège, right picture: Iris Silveira

For the second objective, rows of hedges were planted on embankments using the swale principle, adapted to their needs: the swales have a slightly sloped longitudinal profile leading to a collection ditch that feeds the basin. Swales are used to prevent surface water runoff by allowing it to infiltrate into the soil.

The composition of the hedgerows was designed to meet the GAEC's needs and to be as attractive as possible to biodiversity:

- Plant diversity consisting of local edge-of-forest species, arranged in multiple strata with a seasonal spread of flowering times that are adapted to the soil and climate conditions, compatible with, and attracting beneficial insects and pollinators;
- Deciduous foliage to prevent shading of winter crops.

Although these structures have a much smaller impact than a drainage system, they may still affect the functioning of the wetland. ANA-CEN Ariège will monitor how the wetland evolves.
The creation of a pond is also planned for 2026 to serve as a habitat for biodiversity.

Details on the technique used to restore the wetland

The restoration of the permanent wetland meadow involves ceasing cultivation on five hectares of Utilized Agricultural Area (UAA) located within the wetland. The perimeter was marked in 2024 with bamboo stakes tall enough to be seen from the tractor during the growing season. Eventually, a buffer zone will be preserved between the wetland and the cultivated fields to facilitate the establishment of a natural shrub layer.
Assisted natural regeneration will be implemented to boost plant growth, since, given the plot's history, there are few, if any, young woody shoots at this time.
Specifically, in the winter of 2026–2027, we'll plant a few native shrubs and field trees, using two approaches: one strip with bird perches and another strip with tree and shrub seedlings.
The five hectares of wetland will be managed as hay meadows, with a single late mowing per year. This mowing is performed at a high cutting height of 8 to 10 cm, with the forage baled and removed from the field to avoid enriching the soil and to preserve the meadow's characteristics. The forage is currently used directly on the farm (as mulch, for the vegetable gardening workshop). Discussions are underway with a neighbouring livestock farmer to have him purchase the standing forage when it is of good quality. Experiments on land levelling and seeding are currently being conducted as part of the LIFE Biodiv'Paysanne project in collaboration with the National Botanical Conservatory and the LIFE experimental farm, focusing on seed-related aspects.

ANA-CEN Ariège is monitoring the plant communities to assess the meadow's development. Depending on the results, it may be considered to allow seeds to fall to the ground during removal to promote reseeding.

Authors: Iris Silveira, ANA-CEN Ariège, Chloé MALIK, FCEN, GAEC "Les Croquants"

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Water~Farmers

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