

EXPLORATORY  
PROJECT  
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## SourceN

# Exploring the natural capital resources of farms to feed and preserve the health of ruminants in organic agriculture

Within the context of major climatic uncertainties, the sustainable mobilization of feed resources for animals on ruminant farms is questioned in terms of quantity and quality. The use of new plant resources may prove to be one of the alternatives for sufficient and sustainable production in the future. The SourceN project explores the extent to which atypical resources from the natural capital of ruminant farms can be mobilized in terms of fodder supplementation and animal "health value" without compromising their sustainability and their role as habitats for biodiversity. In doing so, SourceN builds on the determination to concretize the principles of agroecology and considers OA as a farming prototype that foreshadows the future uses of this natural capital. The project is based on four experimental INRAE farms and two partner farms in which three categories of resources will be analyzed (aquatic and wetland plants, interstitial plants from woody formations and orchard grass, and marginalized natural grasslands). The project is organized into two parts, the first one aimed at producing biotechnical knowledge about these resources, and the second at building and testing a protocol to evaluate the interest of using these resources in livestock systems.

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## INRAE units

**UE Saint-Laurent-de-la-Prée**

**UE Ferlus**, Lusignan

**Aster**, Mirecourt

**UMR Herbivores**, Theix

**UERI**, Gotheron

**UR P3F**, Lusignan

## Partners

Conservatoire Botanique  
National de Brest (CBNB)

GAEC de Trévarn

GAEC de la Barge



This protocol will then be mobilized to identify new resources in subsequent projects. SourceN will mobilize several disciplines in order to improve our knowledge of the nutritional value, health value, role and place of these resources in these systems.

The project will draw upon agronomy and, in particular, the zootechnics of livestock systems, making it possible to study the place of these unconventional resources in relation to animal feed and the fodder system. Biochemistry will be put to the task to carry out analyses of the animal health and nutritive components of the plant material. Expert knowledge in ecology will be called upon to address the question of these resources – farm-based as well as habitats for biodiversity and components of biodiversity - that must be preserved. Finally, SourceN will make use of recent research into the metabolism of agrosystems resulting from the analysis approaches of the ecological networks as well as cost-benefit analysis methods, in order to assess their uses and roles within these systems.

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