



BIOSYL

EXPLORATORY
PROJECT
2020-2022

Coordination

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Livestock farming systems and the capability of producing cheese from organic milk: between farmers' strategies, technological itineraries and cheese quality

Some dairy farmers believe that small-scale processing of organic milks is a way to create added-value for dairy farms and to build resilient systems. However, organic systems, and especially grassland systems, are particularly sensitive to climatic conditions (risks, seasonality) because they are highly dependent on environmental conditions for fodder production. These variations lead to both qualitative and quantitative fluctuations in milk quality.

This project explores, on the one hand, technical strategies for these farming systems and their adaptation over time and, on the other hand, their implications in terms of the cheese-making capabilities of the milk, the adaptation of cheese-making technology, and the quality of the cheeses produced, particularly from the microbiological point of view.

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Participating INRAE units

ASTER, Mirecourt
Cheese, Aurillac
URTAL, Poligny

Partners

Organic farmers collective,
France

Cheese dairy, "La boîte à
fromages", France

Bio en Grand Est, France

The project proposed consists of two parts:

- the characterization of farming systems and the definition of potential technological itineraries;
- the study of the evolution of farming strategies over time, the experimental transformation of milks into cheese, and the physical-chemical and microbiological characterization of milks and cheeses, as well as the sensory characterization of cheeses.



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The project brings together researchers from different disciplines: agronomy, cheese-making processes, microbiology, microbial ecology, zootechnics, steering and assessment of farming systems, biochemistry, metagenomics, molecular biology and bioinformatics. It combines experimentation, surveys and workshops in order to identify cheese production and processing strategies adapted to the seasonality of production conditions. Professionals, farmers and cheese-makers will thus work together at each step of the process.

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