

**NAME OF VISIT:** Herbivore research and experimentation facility at INRAE (National Institute for Research in Agriculture, Food and Environment)

**DATE OF VISIT:** 02/10/2024

**ADDRESS:** Les Razats, 63820 LAQUEUILLE

## VISIT OF LAQUEUILLE HERBIPÔLE



### 3 visit points:

1. Discovering the CAMELIA vertical agrivoltaic system
2. Introduction to “grass-fattening” and “organic management” of suckler cattle
3. Discovering phenotyping tools

## Presentation of INRAE

INRAE, the French National Research Institute for Agriculture, Food and the Environment, is a major player in research and innovation created on 1 January 2020.

A research institute resulting from the merger between INRA and Irstea, INRAE brings together a community of

12,000 people, with 273 research, service and experimental units located in 18 centres throughout France. The institute is one of the world's leading research organisations in agricultural and food sciences, plant and animal sciences, and environmental ecology.

It is the world's leading research organisation specialising in the "agriculture-food-environment" cluster.

INRAE's ambition is to be a key player in the transitions needed to meet the major global challenges. Faced with population growth, climate change, resource scarcity and declining biodiversity, the institute is building solutions for multi-performing agriculture, quality food and sustainable management of resources and ecosystems.

## Presentation of the Herbipôle

The Herbipôle is a multidisciplinary experimental platform for research on herbivores and grasslands with a regional, national and European vocation. It is widely open to scientific and professional partners and brings together complementary scientific approaches and disciplines in a single facility. The aims of the research projects conducted at Herbipôle concern ruminant breeding systems in mountain grassland areas, preserving their well-being and in relation to the quality of their products (milk, cheese and meat) and their impact on the environment.

The Herbipôle brings together all the INRAE ruminant experimental facilities in Auvergne-Rhône-Alpes, which are spread over 3 sites: Laqueuille and Theix in the Puy-de-Dôme and Marcenat in the Cantal. The unit consists of 75 permanent staff. The experimental flocks include 900 cattle and 800 sheep spread over more than 1100 ha of grassland located at an altitude of 850 to 1500 m.

The Herbipôle facilities have undergone major building renovations thanks to financial support from the State (INRAE), the Auvergne-Rhône-Alpes region, Europe (Feder) and the Cantal departmental council.

### **1/ Discovering the CAMELIA vertical agrivoltaic system**

The aim of the "Camelia" agrivoltaic demonstrator is to study the service provided by the installation of vertical bifacial solar panels on a pasture, while analyzing the impact on electricity production. It has been installed on a plot of land belonging to INRAE within the "Herbipôle" Experimental Unit in the commune of Laqueuille, under the scientific responsibility of the Unité Mixte de Recherche Ecosystème Prairial (UREP).

Link: <https://www.inrae.fr/actualites/engie-green-lance-partenariat-inrae-construction-dun-demonstrateur-agrivoltaique-vertical-puy-dome>

Video JP Energie Environnement/Photosol/INRAE:  
[https://youtu.be/F\\_BZXs12JF0?si=FXm5zPnMW-WA5bTE](https://youtu.be/F_BZXs12JF0?si=FXm5zPnMW-WA5bTE)



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## **2/ Introduction to “grass-fattening” and “organic management” of suckler cattle**

INRAE Laqueuille has tested the organic production of young Salers/Angus males finished at 1 year. This project is part of the Casdar Proverbial programme. The animals are kept in a thrifty grass-fed system, minimising the proportion of concentrates and focusing on forage quality. The aim is to obtain very high-quality wraps in order to reduce the proportion of concentrate in the ration.

## **3/ Discovering phenotyping tools**

Herbipôle's phenotyping tools are specially adapted to research themes. These enable the automated measurement of numerous indicators useful to research projects, notably concerning feed intake and choice (automated troughs, electronic gates, automatic concentrate dispensers, etc.).