

## PARTNERS

7 INRA scientific divisions specialising in agronomy, livestock and social sciences

Institut de l'élevage, Brilac, Actalia, Anses, Capgenes, Lilco, Labco, LCA, agricultural colleges

**REDCap: a network of goat farmers driven by the desire to develop feed self-sufficiency through the promotion of grassland**

The REDCap network comprises 34 farms located in the Poitou-Charentes and Pays-de-la-Loire regions, which provide financial support.

In conjunction with INRA's Patuchev



## Contact



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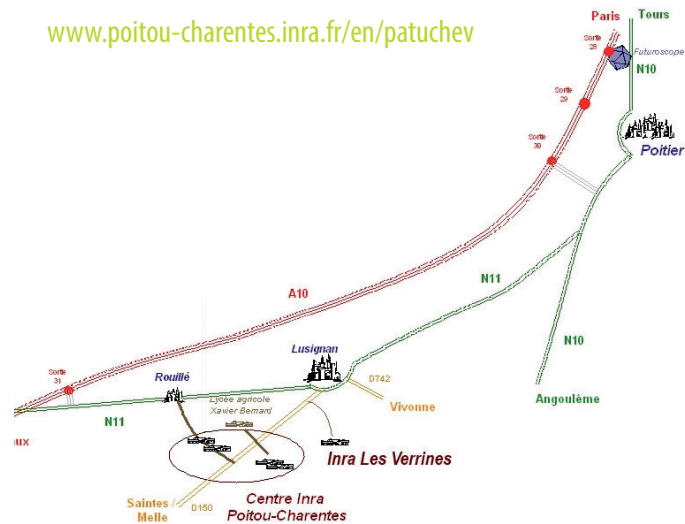
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**Patuchev**

An experimental device to design sustainable goat farming systems.



With the financial support of:



\*Signature provisoire : le nom de la Région sera fixé par décret en Conseil d'Etat avant le 1<sup>er</sup> octobre 2016 suite à l'avis du Conseil régional.

Member of:



## TOWARDS GREATER SELF-SUFFICIENCY IN GOAT FARMING

The Nouvelle-Aquitaine Region is the largest goat farming area in Europe:

35% of the French dairy goat population are reared in the region, and the industry processes 50% of the milk collected from all over France.

The challenge for goat farming systems is to increase sustainability by reconciling economic and environmental performance.

In 2012, Inra created the Patuchev experimental facility to help design such systems.

This approach is a part of Inra's 2010-2020 strategic priorities and the "Agro-ecological Project for France" initiated by the Ministry of Agriculture.

### The objectives of Patuchev:

- integrate grassland in production systems,
- increase the proportion of grazed and/or cut grass in feed.

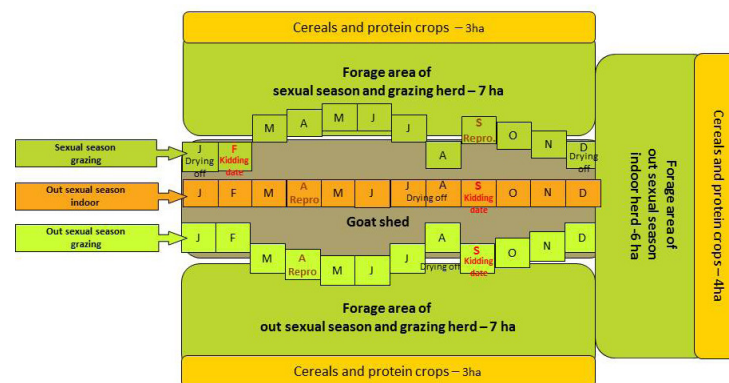
Patuchev is a system experiment enabling the long-term evaluation of three types of management characterised by the period of reproduction and feed management, and implementing principles of agroecology. Each of these three independent systems comprises a herd of 60 goats and 10 hectares of cultivated areas.



## HERD MANAGEMENT

The three herds combine two periods of reproduction and the two kind of valuations of multi-species grassland:

- kidding in February with grazing period,
- kidding in September with grazing period,
- kidding in September with barn-dried hay all year round in the goat shed.



## LAND MANAGEMENT



The hay is barn-dried to maximise its ingestion and limit the intake of concentrate.

Patuchev is located in an area where the soil is loamy and clayey, so-called "Chestnut soil". Grassland, cereals and protein crops (pure or maslin) are rotated for the three systems. A variety of plant species are sown in the meadows, including alfalfa for greater protein self-sufficiency.

## MULTI-CRITERIA AND MULTI-ANNUAL EVALUATION

The three systems are evaluated over several years according to three sustainability components. The indicators used concern lactation, goat career and crop rotations.

### Routine data measurements:

**Animal husbandry:** milk yield, reproduction, weight, body condition score and animal health;

**Agronomical:** grassland and crop yields, volume of effluents, flow and elementary assessments, technical itineraries;

**Environmental:** energy consumption, biodiversity, greenhouse gas emissions;

**Economic:** useful matter produced per hectare, gross margin;

**Social:** workload, animal welfare, product quality.

## Key figures

### Patuchev facility

- 3 x 10 ha of cultivated land
- 3 x 60 Alpine goats
- A 160 t hay dryer with solar collector
- An experimental staff of 6 technicians

### Climate in Lusignan

- Ocean climate with summer drought
- Average temperature: 11.6 °C
- Average rainfall: 804 mm/year