

CONTEXT PROFILE

 FRANCE



FARMER

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INNOVATION

Chosing chicory, plantain, and clover to
maintain grazing throughout the summer



[Video](#)



MAIN DOMAIN OF THE INNOVATION

Improvement of nutrient cycle



AGROCLIMATIC AREA

Atlantic north



CLIMATE

Moderate rainfall



SOIL TYPE

Clay



MANAGEMENT

Pasture Dairy



TECHNICAL

Easy



FINANCE/INVESTMENT

Low



MARKET

Local-rural



SOCIAL

Full-time farmer

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Case Study: FR_13	Agroclimatic Zone								
Item (Key Innovation Elements)	Alpine	Atlantic Central	Atlantic North	Atlantic South	Boreal	Continental North	Continental South	Mediterranean North	Mediterranean South
100% grass-fed dairy farm	++	+++	+++	++	+++	+++	+++	+++	++
Achieve food self-sufficiency to minimize expenses and to reduce working hours	++	+++	+++	+++	+++	+++	+++	+++	+++
Pasture availability to keep a Stocking rate of 1 hectare per cow	++	+++	++	+++	+++	+++	+++	+++	++
Establishment of summer pastures based on chicory, plantain, and clover to continue grazing in summer	+++	+++	++	+++	+++	+++	+++	+++	+

+++ Strong transferability ++ Slightly limited transferability + Very limited transferability ✕ Generic information/not relevant

Implementation Gaps

- The cows will selectively graze other species (perennial ryegrass/white clover)
- Limited sustainability of these species (chicory, plantain)
- It is necessary to have a sufficient total surface area on the farm in an all-grass system
- Chicory should be dominant in the mix. It should not be mixed with a "traditional" grazed pasture
- In the south of the Mediterranean there is a summer drought, without any rain. Although chicory and plantain are spontaneous native plants, there are no commercial seed mixtures including breeds of these species

Research Gaps

- Improving cow genetics for optimal adaptation to all-grass system
- Selection of chicory, plantain, and clover cultivars more suitable for summer grazing

Suggestions to Adapt

- Increasing the number of cows to maintain the previous milk production level
- Adapt the stocking rate depending on the climatic conditions

COST-BENEFIT ANALYSIS

INVESTMENT COSTS

Total initial investment costs at start up:	low
• Initial authorisation costs (e.g. sanitary, veterinary, etc.)	low
• Initial advisory costs	low
• Initial buildings and machineries	low
• Initial certification costs	low
• Initial working capital (personal qualification, marketing and promotion, etc.)	low

ON-GOING COSTS

On-going advisory costs	low
On-going certification costs	low
On-going buildings and machinery costs	low
On-going working capital	low

BENEFITS RELATIVE TO ORIGINAL SYSTEM

◦ Economic

Reduction in energy consumption (electricity; fuel consumption)	high
Reduction in input use (fertilizers; pesticides; feed) etc.	high
Payback period	high
Product value added	mid
Additional farm income through agroecological/agri-environmental payment schemes	not applicable/not known

◦ Environmental

Animal feed self-sufficiency increase	high
Biodiversity increase	mid
Improved nitrogen cycling	mid
Soil regeneration	mid
Animal health and welfare improvement	high

◦ Social

Workload reduction	high
Engagement of young generation	mid

Literature

English

- [https://www.journalofdairyscience.org/article/S0022-0302\(13\)00811-4/fulltext](https://www.journalofdairyscience.org/article/S0022-0302(13)00811-4/fulltext)
- [https://www.journalofdairyscience.org/article/S0022-0302\(15\)00673-6/fulltext](https://www.journalofdairyscience.org/article/S0022-0302(15)00673-6/fulltext)