CONTEXT PROFILE

THE NETHERLANDS

FARMER
Christian Swolfs

INNOVATION
Siesta grazing as a strategy for robotic milking and measures to improve grass quality

Video

MAIN DOMAIN OF THE INNOVATION
Animal management

SOIL TYPE
Clay

FINANCE/INVESTMENT
Low

AGROCLIMATIC AREA
Atlantic central

MANAGEMENT
Pasture dairy

MARKET
Global

CLIMATE
Moderate rainfall

TECHNICAL
Computer-based

SOCIAL
Full-time farmer

All contents of this document are expert opinions of the G4AE Scientific Technical Working Group

CONTEXT PROFILE

THE NETHERLANDS

Case Study: NL_07	Agroclimatic Zone								
Item (Key Innovation Elements)	**Alpine**	**Atlantic Central**	**Atlantic North**	**Atlantic South**	**Boreal**	**Continental North**	**Continental South**	**Mediterranean North**	**Mediterranean South**
Mixed farm combining dairy and laying hens	+++	+++	+++	+++	+++	+++	+++	+++	+++
Automatic milking combined with grazing	+++	+++	+++	+++	+++	+++	+++	+++	+++
Siesta grazing (grazing system where cows graze in the morning and the afternoon and typically rest during the heat of the middle of the day)	+++	+++	+++	+++	+++	+++	+++	+++	+++
Sowing red and white clover after maize to increase nitrogen fixation	++	+++	+++	+++	+++	+++	+++	++	++
Controlled drainage to ensure water availability during drought periods	+++	+++	+++	+++	+++	+++	+++	+	+

+++ **Strong transferability** ++ **Slightly limited transferability** + **Very limited transferability** × **Generic information/not relevant**

Funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission . Neither the European Union nor the European Commission can be held responsible for them.

Implementation Gaps

- A key challenge is ensuring that the land designated for grazing is within a manageable distance from the milking robot to minimize walking time for cows
- The success of drainage systems can vary significantly depending on local soil types, topography, and climate conditions. Customised drainage solutions may be required for different regions to ensure effectiveness
- The success of sowing clover may differ between different regions

Research Gaps

- Mixed species or new species and varieties for sowing in different regions
- Long-term effects of siesta grazing on animal health and productivity

Suggestions to Adapt

- To optimize grazing while ensuring that cows return for milking on time, it may be beneficial to control the amount of grass available in the pasture
- Diversify the pasture with other species or varieties, particularly those adapted to specific regional conditions
- Siesta grazing should be tailored to local weather patterns, particularly during extreme heat or cold spells

Grazing4AgroEcology

Funded by the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission . Neither the European Union nor the European Commission can be held responsible for them.

COST-BENEFIT ANALYSIS

INVESTMENT COSTS

Total initial investment costs at start up:	low
• Initial authorisation costs (e.g. sanitary, veterinary, etc.)	not applicable/not known
• Initial advisory costs	not applicable/not known
• Initial buildings and machineries	not applicable/not known
• Initial certification costs	not applicable/not known
• Initial working capital (personal qualification, marketing and promotion, etc.)	not applicable/not known

ON-GOING COSTS

On-going advisory costs	not applicable/not known
On-going certification costs	low
On-going buildings and machinery costs	not applicable/not known
On-going working capital	not applicable/not known

BENEFITS RELATIVE TO ORIGINAL SYSTEM

- **Economic**

Reduction in energy consumption (electricity; fuel consumption)	none or low
Reduction in input use (fertilizers; pesticides; feed) etc.	none or low
Payback period	none or low
Product value added	mid
Additional farm income through agroecological/agri-environmental payment schemes	high

- **Environmental**

Animal feed self-sufficiency increase	none or low
Biodiversity increase	high
Improved nitrogen cycling	high
Soil regeneration	high
Animal health and welfare improvement	not applicable/not known

- **Social**

Workload reduction	high
Engagement of young generation	high

Grazing AgroEcology 4.0
Funded by the European Union
Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission . Neither the European Union nor the European Commission can be held responsible for them.

Literature

National Language

- https://edepot.wur.nl/47840

English

- https://www.cabidigitallibrary.org/doi/full/10.5555/20000712445 (siesta grazing)
- https://doi.org/10.5061/dryad.5dv41ns5d (multispecies)

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Commission . Neither the European Union nor the European Commission can be held responsible for them.