CONTEXT PROFILE

THE NETHERLANDS

FARMER
Tom Lugtenberg

INNOVATION
Grazing practices and longevity of dairy cows

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
Easy

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_11	Agroclimatic Zone								
Item (Key Innovation Elements)	**Alpine**	**Atlantic Central**	**Atlantic North**	**Atlantic South**	**Boreal**	**Continental North**	**Continental South**	**Mediterranean North**	**Mediterranean South**
Integrated, holistic farm concept combining productivity, animal welfare, and nature conservation	+	+++	+++	+	+	+	+	+	+
Strategic calving schedule that avoids the hottest months to reduce heat stress	+++	+++	+++	+++	+++	+++	+++	+++	+++
Use of resilient crossbreed cows suited to grazing and longevity	+++	+++	+++	+++	+++	+++	+++	+++	+++
Smart use of nearby nature reserves as a forage buffer during dry periods	+++	+++	+++	+++	+++	+++	+++	+++	+++

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

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Implementation Gaps

- Innovation lies in the unique combination of multiple strategies rather than individual elements
- Sufficient grassland availability is essential to support this system
- Limited replicability in areas with less land or different climatic conditions

Research Gaps

- Impact on cow health, welfare, and longevity under more intensive conditions
- Viability of extensive grazing systems on less fertile soils
- Long-term effects of partial nature-based buffering strategies on farm sustainability

Suggestions to Adapt

- Tailor this integrated concept to local conditions
- Select elements (e.g. calving schedule, forage buffering) to other farms

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

- **Environmental**

Animal feed self-sufficiency increase	high
Biodiversity increase	high
Improved nitrogen cycling	not applicable/not known
Soil regeneration	not applicable/not known
Animal health and welfare improvement	high

- **Social**

Workload reduction	high
Engagement of young generation	not applicable/not known

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Literature

English

- https://pmc.ncbi.nlm.nih.gov/articles/PMC7999272/
- https://pmc.ncbi.nlm.nih.gov/articles/PMC7028026/
- https://extension.sdstate.edu/sites/default/files/2021-05/S-0013-49.pdf

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