CONTEXT PROFILE

SWEDEN

FARMER
Karl-Johan Lennartson - Intakan

INNOVATION
Alder – a challenge on semi-natural grasslands

Video

MAIN DOMAIN OF THE INNOVATION
Improvement of grassland management

SOIL TYPE
Loam

FINANCE/INVESTMENT
High

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

SWEDEN

Case Study: SE_11	Agroclimatic Zone								
Item (Key Innovation Elements)	**Alpine**	**Atlantic Central**	**Atlantic North**	**Atlantic South**	**Boreal**	**Continental North**	**Continental South**	**Mediterranean North**	**Mediterranean South**
Availability of agri-environmental schemes with adequate payments for landscape management	++	+++	+++	++	+++	++	++	++	++
Contrast of the natural decline of semi-natural grasslands due to bush encroachment by periodical clearing of bushes and trees	+++	+++	+	+++	+++	++	+++	+++	+++
Grazing management also under waterlogging conditions	++	++	+++	++	++	X	X	X	++

+++ **Strong transferability**

++ **Slightly limited transferability**

\+ **Very limited transferability**

X **Generic information/not relevant**

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Implementation Gaps

- High dependency on financial state support schemes: abandonment as a risk when schemes reduce or cease
- Labour costs for periodically clearing the alder

Research Gaps

- Cross-breed towards traits which favour grazing under waterlogging conditions and woody plant utilization

Suggestions to Adapt

- Use breeds which efficiently control alder and other shrubs, e.g. highland cattle

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COST-BENEFIT ANALYSIS

INVESTMENT COSTS

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

ON-GOING COSTS

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

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	not applicable/not known
Product value added	high
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	high
Soil regeneration	mid
Animal health and welfare improvement	mid

- **Social**

Workload reduction	none or low
Engagement of young generation	not applicable/not known

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Literature

English

- Spatial Distribution of Highland Cattle in Alnus viridis Encroached Subalpine Pastures: https://www.frontiersin.org/journals/ecology-and evolution/articles/10.3389/fevo.2021.626599/full
- Hessle, A., Wissman, J., Bertilsson, J., Burstedt, E. 2008. Effects of breed and season on defoliation and faecal composition in cattle grazing semi-natural grasslands. Grass & Forage Science 63, 86-93.

French

- Composition chimique et digestibilité in vitro des feuilles d'arbre, d'arbuste et de liane des milieux tempérés en été: https://afpf-asso.fr/index.php?download=3961&token=f2300d6baf8fbe0c99fed50d8f585228

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