

Biodiversity-Friendly Equine Grazing in Semi-Natural Biotopes



Thematic area:

Environmental Sustainability.

Priority: How to improve biodiversity while maintaining equine activities?

Need: Find solutions to reduce the loss of biodiversity (and/or even increase biodiversity) in equine farms (positive and negative impacts of equines):
> How to identify good, practical and biodiversity-friendly methods?

Solution EU number: BD-13.

Content of the solution:

Implementing sustainable grazing management practices that balance livestock density, preserve plant diversity, and monitor pasture conditions to maintain ecological balance and horse health.

Reasons for Implementing the Solution

Grazing promotes the health and well-being of equines, while also enhancing the biodiversity and ecosystem health of semi-natural habitats such as permanent pastures and natural grasslands.

Description of Solution Strategies

Equines, whose numbers are growing in Europe, are set to play an increasing role in preserving the biodiversity of pasture land. They have an innate capacity to ingest rough forage, which means they can efficiently control competitive weeds and keep land cleared. Their heterogeneous grazing pattern (as they preserve an area of short grass within a wider area of tall grass) promotes, at least on a temporary basis, the coexistence of a wide number of plant and animal species within the vegetation cover. Their diet includes fewer dicotyledons than that of ruminants.

Implement sustainable grazing management practices that balance livestock density, preserve plant diversity and monitor pasture conditions, in order to maintain ecological balance and the health of equines. This involves mapping grazing patterns using geographic information systems (GIS), integrating traditional grazing practices, and adapting to local environmental conditions.

Implementation Steps

1. Assess Pasture Conditions: Evaluate the current state of the pasture, including plant diversity, soil health, and existing grazing patterns. Use GIS and expert-derived estimates to map the spatial distribution of grazing and identify areas with high conservation potential

2. Develop a Grazing Plan: Create a rotational grazing schedule that considers the specific needs of the equines and the pasture ecosystem. This plan should integrate traditional grazing practices and consider local socio-economic, terrain, soil, and climatic conditions.



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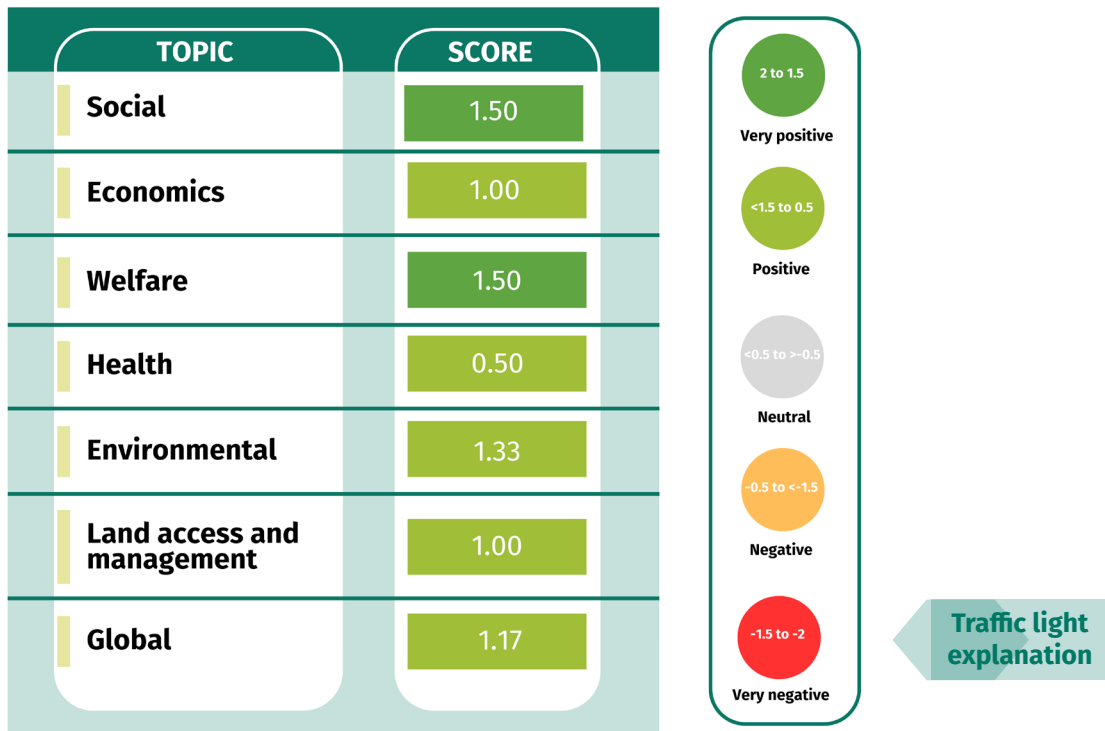
3. Monitor and Adjust: Regularly monitor vegetation and soil conditions, adjusting grazing intensity and livestock density as needed. Both under- and overgrazing reduce the biodiversity value of grazing. Use maximum entropy modeling and other tools to predict suitable grazing areas and optimize management practices.

4. Integrate Shelter and Water Sources: Ensure that pastures provide adequate shelter and water for the equines. Wooded natural pastures can offer protection from harsh weather conditions and contribute to the overall health of the equines.

5. Educate and Train: Provide training and resources for those managing the pastures to ensure best practices are followed. This includes improving the accessibility of grazing management guides and offering practical advice on managing horse pastures.

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How Will this Solution Impact the Performance of your Farm?



Socioeconomics: This solution will improve the socio-economic performance of your farm. Implementing sustainable grazing management practices increases the use of natural pastures, providing access to subsidised traditional landscapes and expanding grazing areas, even for farms with limited land. Alongside the potential for public support and improved ecological resilience, these practices can enhance your farm’s reputation as a responsible, nature-friendly operation. This positive image will attract visitors, clients and collaborators who value sustainability and animal welfare.

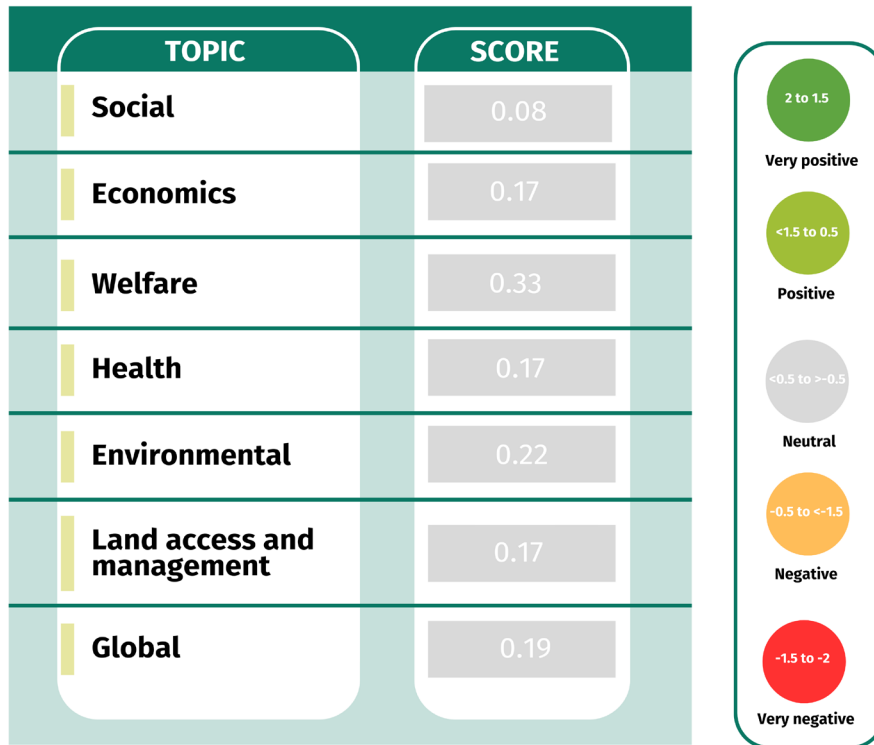


Health & Welfare: This solution enables grazing in natural habitats, meeting the needs of equines by providing adequate feeding, social support and freedom of movement. Access to local anthelmintic and healthy plants may also have a positive effect on equine health. However, attention should be paid, as toxic plants and stagnant water can be detrimental to equines’ health.



Environmental Sustainability: This solution has a positive impact on farm sustainability because pastures become more diverse and resistant to extreme weather. It also has a small positive impact on water conservation because natural pastures are not fertilised. Furthermore, it has a very positive impact on halting biodiversity loss because it enhances biodiversity conservation and grassland management.

How Will this Solution Impact the Resilience of your Farm?



Socioeconomics: This solution won't have any effect on the socioeconomic performance of the farm facing external challenges because, while it promotes cost savings through natural grazing and access to subsidized traditional landscapes, these benefits may be offset by the increased need for manpower to monitor and manage herds, especially in remote or fragmented areas, as well as possible losses from predation. In the context of broader challenges, such as reduced communication budgets, limited workforce availability or rising production costs, these additional demands may strain the farm's performance, resulting in no significant improvement to its overall resilience or economic stability.



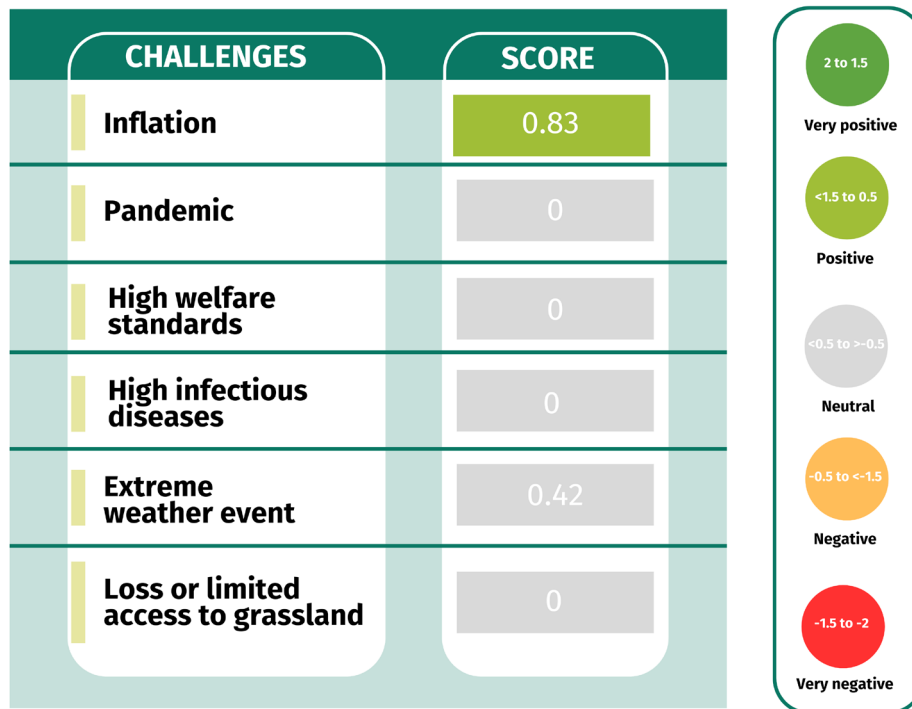
Health & Welfare: This solution may only have a positive effect on equine welfare if the farm adopts measures to address welfare challenges, as it ensures the equines basic needs are met (3F). However, it does not prevent the consequences of other challenges, such as pain and mortality.



Environmental sustainability: This solution has a neutral effect on farm resilience related to environmental sustainability and pasture management.

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How Can this Solution Help your Farm to Face Specific External Challenges to be More Resilient?



Inflation & Social Crises: This solution will support the farm’s performance in the face of inflation because sustainable grazing management reduces dependency on purchased feed and external inputs by making the most of natural pastures. This helps to control rising operational costs. Relying more on locally available resources while maintaining access to subsidised traditional landscapes strengthens the farm’s economic resilience and enhances its environmental and social value. This can attract supportive stakeholders and consumers, even in times of economic uncertainty. However, this solution will not have any effect in the event of a pandemic.



Welfare & Diseases: This solution can help the farm recover from the impact of high welfare legislation, as continuous access to fodder is crucial for health and welfare. However, it offers no protection in the event of an infectious disease outbreak.



Climate Change & Access to Land: This solution does not affect farms’ ability to recover from challenges caused by abnormally high temperatures, excessive rainfall, drought, or limited or lost access to grassland.



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Cost-benefit Analysis

Costs

Socioeconomics:

- **Predation Risks:** Wolves and other predators can harm equines, leading to potential losses. Protective measures like guard dogs and donkeys are necessary.
- **Administrative Challenges:** Managing contract grazing can be complex, especially when equines come from different locations. Clear responsibilities must be established.
- **Variable Yield:** Pasture productivity and feed quality can vary annually and within the grazing season, affecting grazing efficiency.
- **Animal Suitability:** Not all equines are suitable for natural pastures. For example, modern races or sport horses may not thrive, while more primitive native breeds are often well-suited.

Health & Welfare:

- **Monitoring Requirements:** Regular monitoring of herds is essential to ensure their health and safety.
- **Risks:** There are inherent risks involved with grazing, such as injuries or health issues.
- **Disease Management:** There is a risk of disease transmission between herds if not properly managed. Providing low parasite pressure pastures particularly for young equines would be beneficial.



Benefits

- **Economic Support:** Grazing costs can be offset by financial support and subsidies.
- **Potential for Expansion:** There are many hectares available for grazing, which can be developed further.



- **Respect for the physiological needs of equines:** Grazing promotes exercise, social interaction, and natural feeding behaviors in equines.
- **Social Interaction:** Equines benefit from social interactions in larger, mixed herds, which can improve their overall well-being.
- **Nutritional Advantages:** Diverse pastures provide a range of nutrients, including vitamins, minerals, and antioxidants, which contribute to overall equine health.

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Costs

Environmental Sustainability:

- **Risk of Overgrazing:** if guidelines are not applied properly

Cooperation Between Farms:

- **Coordination Efforts:** Organizing and managing cooperation between multiple farms can be complex and time-consuming.
- **Administrative Challenges:** Clear agreements on responsibilities, grazing schedules, and resource sharing are necessary to avoid conflicts.
- **Initial Investment:** Setting up cooperative grazing systems may require initial investments in infrastructure, such as fencing and water systems.



Benefits

- **Biodiversity Conservation:** Grazing helps maintain high biodiversity in semi-natural pastures, which is crucial for ecosystem health
- **Landscape Management:** Equines can be used more widely in managing traditional landscapes, helping to prevent nature loss and maintain ecological balance
- **Shared Resources:** Farms can share resources like equipment, labour, and expertise, reducing individual costs.
- **Economic Support:** Cooperative grazing can attract subsidies and financial support, making it more economically viable.
- **Increased Grazing Land:** Cooperation can open up more hectares for grazing, optimizing land use and increasing productivity.



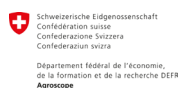
Technical Sheet for Solution Implementation

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Additional Resources

Publications

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Ideas to Animate a Workshop About the Solution

- **Sponsorship:** Invite an organization specializing in conversation practices of semi-natural biotopes.
- **Location:** Find a model farm where the workshop can take place.
- **Participation:** Complete the required tasks and involve participants in demonstration activities to familiarize them with the system.

Proposed structure for the workshop on Grazing Management in Semi-Natural Biotopes

1. Introduction to Grazing Management

- **Overview:** What is grazing management in semi-natural biotopes?
- **Key Features:** Discuss the challenges and benefits of sustainable grazing practices.
- **Types of Grazing Systems:** Explain different grazing systems and guidelines per country/ area in which the workshop is located in or where participants come from.

2. Benefits of Grazing Management

- **Health and Well-being:** How grazing promotes equine health and well-being.
- **Biodiversity:** The role of grazing in enhancing biodiversity and ecosystem health.
- **Economic Advantages:** Potential cost savings and financial support available for grazing management.

3. Practical Applications on Equine Farms

- **Pasture Management:** Techniques for managing pastures to maintain plant diversity and soil health.
- **Grazing Plans:** Developing rotational grazing schedules and adjusting livestock density.
- **Shelter and Water:** Integrating shelter and water sources into pastures.

4. How to Choose the Most Suitable Grazing System

- **Farm Needs Assessment:** Evaluating the specific needs of the farm.
- **Structural Requirements:** Assessing the structural requirements for implementing measurements according to the provided guidelines.

5. Case Studies and Real-World Examples

- **Examples:** Present examples of farms using sustainable grazing practices.
- **Integration:** Discuss how these farms have integrated grazing management into their operations.
- **Lessons Learned:** Share lessons learned and tips from experienced farm operators.

6. Cost Analysis and Return on Investment (ROI)

- **Initial Costs vs. Savings:** Compare initial costs of grazing systems in semi-natural biotopes with long-term savings.
- **ROI Calculation:** How to calculate ROI based on farm size, workload, and usage of subsidies.
- **Financial Benefits:** Highlight financial benefits from improved fodder and grazing productivity.



7. Q&A Session

- **Open Floor:** Allow participants to ask questions about specific concerns or experiences.
- **Address Uncertainties:** Clarify any uncertainties regarding the effectiveness or cost of applying measurements according to grazing guidelines.

8. Wrap-Up and Resources

- **Summary:** Recap key points covered in the workshop.
- **Additional Resources:** Provide resources for further learning (websites, online communities).