

# Using Wood from Farm Hedgerows as Horse Bedding



### Thematic Area:

Environmental sustainability.

**Priority:** How can biodiversity be improved while maintaining equine activities?

**Need:** Deterioration of the ecosystem due to massive plantations of non-native species: how to promote the cultivation of native species?

**Solution EU Number:** BD-02.

### Content of the Solution:

Using wood chips obtained from hedge trimming on the farm or locally as horse bedding offers a sustainable and local alternative to conventional materials.

### Key Contacts:

- Advisors, farmers.

## Reasons for Implementing this Solution

Using locally sourced plants for bedding helps to promote and preserve regional ecosystems. Using bedding made from hedges cut on the farm, as well as from local plantations – which promotes a short supply chain – generally reduces respiratory problems in horses, compared to using traditional straw bedding. Moreover, it strengthens the link between local agriculture and horse farming, promoting efficient land use with native species well adapted to local climatic conditions.

## Description of Solution Strategies

There are two ways to use bedding made from local plants on farms:

- **Produce your own bedding from wood chips from the farm's hedges and trees:** The residues from cutting hedges and trees are usually considered waste, but with the correct machinery or by hiring a service provider, they can be transformed into bedding. Planting hedges and trees can also provide shade for animals, retain water in the soil and contribute to dietary diversification (forage hedges), as well as preserving biodiversity on the farm.
- **Source bedding locally from regional plants:** Depending on the region, many plants can be used as bedding. These include straw from various cereals, lavender straw, miscanthus and flax. Promoting short supply chains and the use of local crops reduces the environmental impact of purchasing bedding for the farm while preserving regional biodiversity and ecosystems.

However, particular attention must be paid to the type of plants used for equine bedding. Species that are unsuitable for this purpose (such as conifers) or that may cause allergic reactions in animals should be avoided.



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## Implementation Steps

When you produce your own bedding from the farm's hedges and trees:

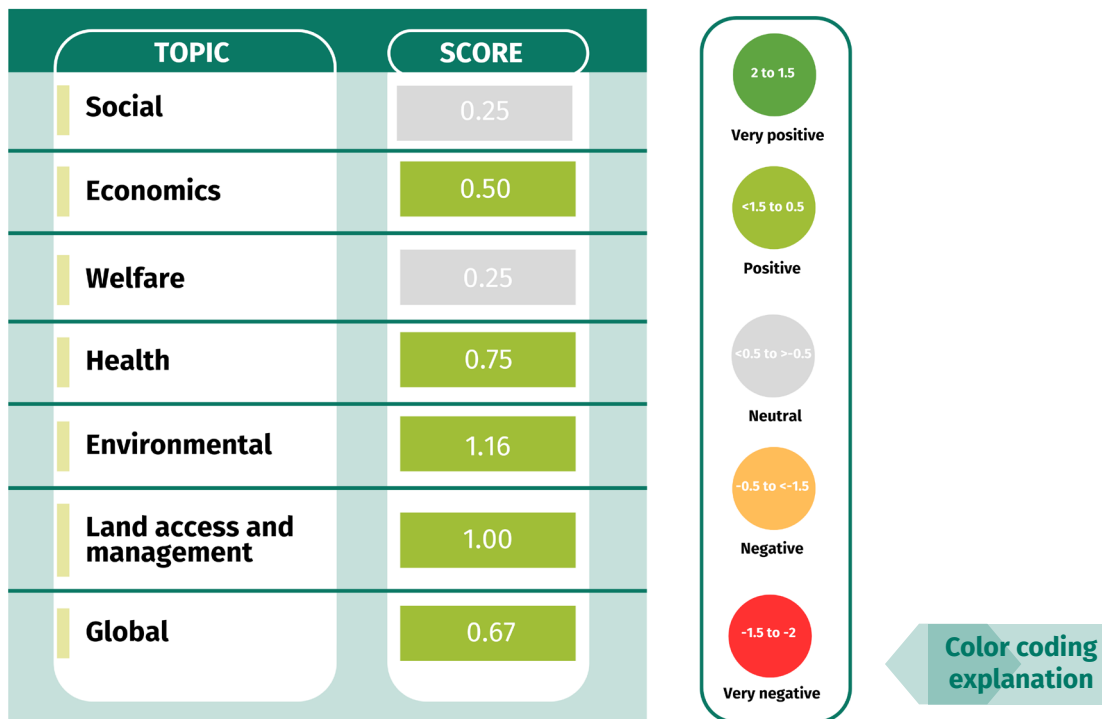
1. **Assessment of available resources:** Identify hedgerows on the farm that can provide sufficient wood through regular trimming. Evaluate the type of species present and ensure that the wood is non-toxic and suitable for horse bedding.
2. **Planning and equipment:** Define the trimming schedule and determine the equipment needed for chipping and drying the material (e.g., wood chipper, storage area). You can also hire a service provider to transform your hedges and trees residues into wood chips.
3. **Cost-Benefit Analysis:** Evaluate the financial and environmental implications, including potential savings and initial costs.
4. **Processing:** Collect, chip, and dry the trimmed wood under controlled conditions to ensure a clean, dust-free and absorbent bedding material.
5. **Test Phase:** Conduct trials to test the effectiveness and safety of the new bedding materials.
6. **Implementation and Training:** Integrate the new materials into operational processes, provide staff training, and establish a feedback loop for continuous improvement.

When you use local crops from a short supply chain:

1. **Assessment of available resources:** Identify local plants that can be used as bedding in the area – preferably ones that have already been studied for use with equines.
2. **Cost-Benefit Analysis:** Compare the prices of the different native crops of your area. Evaluate the financial and environmental implications, including potential savings and initial costs.
3. **Supply:** Find a local bedding producer.
4. **Test Phase:** Conduct trials to test the effectiveness and safety of the new bedding materials.
5. **Implementation and Training:** Integrate the new materials into operational processes, provide staff training, and establish a feedback loop for continuous improvement.

# Using Wood from Farm Hedgerows as Horse Bedding

### How Will this Solution Impact the Performance of your Farm ?



**Socioeconomics:** Neutral social score could be explained by a balance between positive and negative aspects. On one hand, farmers could gain a more positive public image through sustainable practices. Their pioneering role enhances their standing, and the tourist value of sustainable and innovative farming practices adds further societal benefits. On the other hand, this solution is initially time-consuming by the needed learning quality control for less-common products and acquiring expert knowledge. A slightly positive economic score could be explained by the fact that shorter supply chains and reduced transport efforts lead to cost savings and increased profitability. The score is not strongly positive, as there is a risk of being confronted with single points of sale which could result in higher prices. When wood chips are produced directly on the farm, the savings from no longer purchasing commercial bedding are mitigated by the investment in equipment or the cost of outsourcing hedge-trimming and chipping as a service.



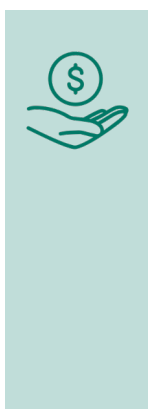
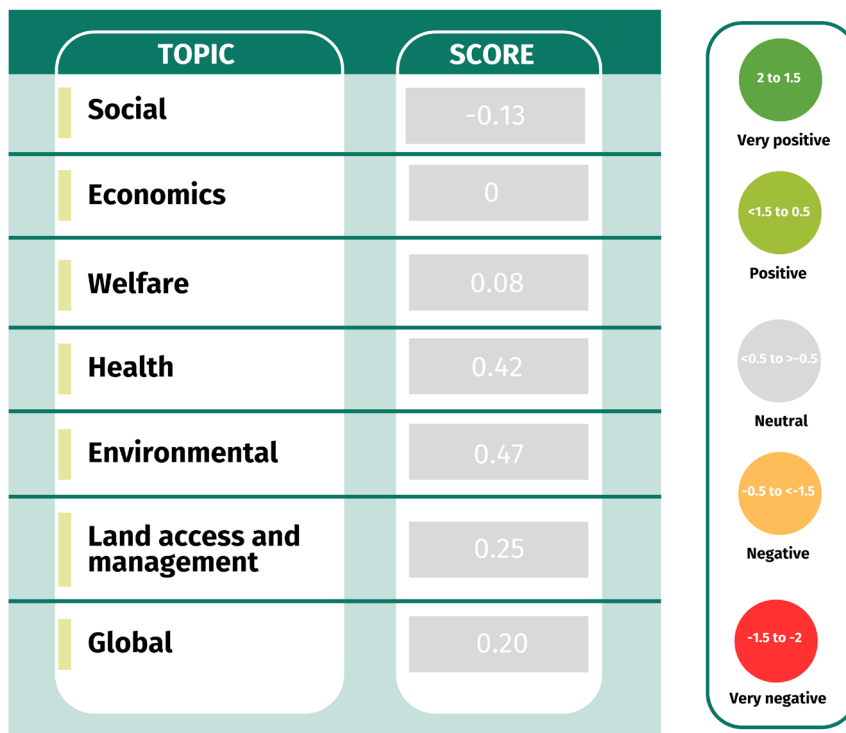
**Health & Welfare:** This solution could have a positive impact on equine health if the bedding used produces less dust than traditional straw bedding (which is the case for wood shavings, but also other plants), leading to a reduction in respiratory problems in equines and therefore a decrease in the use of curative medication and of diseases or pain. However, it has no direct effect on good maintenance and positive emotional state.

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**Environmental Sustainability:** This solution has a positive impact on performance related to climate change mitigation due to reduced litter transport. Protecting trees has a high impact on biodiversity. Trees also store water, provide shade and imitate CO2. The solution has also a positive impact on access to grassland, because it helps to keep the environment open with hedge maintenance. It is important to pay attention to the nesting period when trimming hedges.

### How Will this Solution Impact the Resilience of your Farm?



**Socioeconomics:** Neutral scores could be explained by a balance between positive and negative aspects. Using hedge trimmings as bedding instead of purchasing straw or shavings reduces costs by lowering transportation costs when sourcing locally. This approach enhances independence from supply chains, supports regional agriculture, and strengthens the farm’s adaptability to rising production costs, ensuring stable husbandry conditions. Additionally, the practice promotes sustainability and fosters positive external impacts, such as community support and visibility. On the other hand, the workload increases due to the trimming and processing of hedges, which could be problematic in case of reduced workforce availability.



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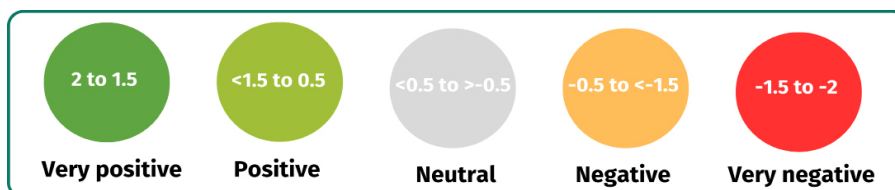
**Health & Welfare:** Using local plants instead of straw as bedding for horses could reduce respiratory problems and veterinary costs, but the impact would be limited. If the farm produces its own bedding by cutting its hedges and trees, it can also potentially provide more natural shelter and shade for its pastures, which can positively impact the emotional state of equines. Without this, the effect of the solution would be neutral.



**Environmental Sustainability:** This solution has neutral effect on farm level resilience related to environmental sustainability.

## How Can this Solution Help your Farm Cope with Specific External Challenges to Become More Resilient?

CHALLENGES	SCORE
Inflation	0.25
Pandemic	0.38
High welfare standards	0.29
High infectious diseases	0.13
Extreme weather event	0
Loss or limited access to grassland	0.17



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**Inflation & Social Crises:** Neutral scores could be explained, for both challenges by a balance between positive and negatives aspects as explained above, mostly by the influence of a reduced workforce available.



**Welfare & Diseases:** The solution has a neutral effect facing external challenges because, although alternative bedding generally reduces respiratory problems in equines, it has no impact on other criteria. The solution's impact on equine welfare is limited, particularly when faced with the assessed challenges.



**Climate Change & Access to Land:** This solution has a somewhat neutral effect on farm resilience in challenges related to excessive rainfall and limited access to grassland.

## Cost-Benefit Analysis

### Costs

#### Socioeconomics:

- When produced on farm: Investment in equipment and technical expertise, or use of a service provider if necessary.
  - Time required for training/knowledge acquiring.
  - Time required for trimming.
- When purchased locally:
  - Costs of bedding purchase.
  - Quality control for non-common products must be learned first.

#### Health & Welfare:

- Beware of toxicity, plant compatibility necessary.
- Beware of thorny plant.
- Beware of lack of data and field feedback.
- Possible health problems if the bedding is eaten.



### Benefits

- Supports the local economy by purchasing from local suppliers.
- Possibility to reduce costs for litter.
- Lower care procedures.
- Shorter supply chains.
- Less transport effort.
- More positive image through more sustainability.



- Lower respiratory problems, if checked and no toxic tree species (wood chip litter).
- Promotion of animal welfare (less dust formation, essential oils, lower pesticide load, etc.).
- Improved health status = lower vet costs.
- If used as hedges: natural shade providers.

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### Cost-Benefit Analysis

#### Costs

##### Environmental Sustainability:

- Beware of dates for trimming hedges.
- Travel by service provider.
- Use of fossil fuels.

##### Cooperation between farms:

- None effect.



#### Benefits

- Promotion of short supply chains.
- Reduction of CO2 footprint.
- Promoting and preserving species richness (flora & fauna) and biodiversity.
- Opening and maintaining meadows.
- Maintains the balance of biodiversity.



- Possibility of joint investment for equipment.
- Creating a local value chain.
- Encourages knowledge sharing and collaborations.



# Technical Sheet for Solution Implementation

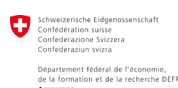
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### Additional Resources

- <https://ninevoices.eu/product/bedding-for-horses>
- <https://www.horseandhound.co.uk/horse-care/horse-care-tips/where-to-buy-alternative-bedding-302564>
- <https://thehorse.com/19201/not-your-grandmothers-bedding-horse-bedding-alternatives>
- <https://madbarn.com/best-bedding-for-horses>
- <https://www.doublej farms.supply/blog/best-options-for-horse-bedding>
- <https://equinefacilitydesign.com/misc/earth-friendly-horse-bedding-alternatives.htm>
- [https://www.researchgate.net/publication/333018390\\_Miscanthus\\_and\\_hemp\\_as\\_alternative\\_bedding\\_material\\_for\\_horses](https://www.researchgate.net/publication/333018390_Miscanthus_and_hemp_as_alternative_bedding_material_for_horses)
- <https://www.fas.scot/downloads/alternative-bedding-materials/>
- <https://www.agproud.com/articles/36478-3-alternative-bedding-options-when-supplies-are-tight>
- [https://www.researchgate.net/publication/310588305\\_Miscanthus\\_Horse\\_Bedding\\_Compare\\_Well\\_to\\_Alternatives](https://www.researchgate.net/publication/310588305_Miscanthus_Horse_Bedding_Compare_Well_to_Alternatives)
- <https://snohomishcd.org/shk-resources/2017/12/27/horse-manure-and-bedding-what-can-i-do-with-it>
- <https://www.equestrianbusiness.net/bedding-concerns-is-the-price-right>
- <https://equusmagazine.com/horse-care/bedding-compared>
- <https://thehorse.com/149772/growing-your-bedding-the-good-the-bad-and-the-ugly>
- <https://digitalcommons.calpoly.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1093&context=socssp>
- [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=5026488](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5026488)
- <https://link.springer.com/article/10.1007/s10668-024-05244-7>
- <https://lutpub.lut.fi/handle/10024/168578>

### French language

- <https://equipedia.ifce.fr/infrastructure-et-equipement/installation-et-environnement/effluents-delevage/choisir-sa-litiere>
- <https://equipedia.ifce.fr/infrastructure-et-equipement/installation-et-environnement/effluents-delevage/litieres-et-particules-respirables-dans-les-ecuries>
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- [https://equipedia.ifce.fr/bibliotheque/3. Guide\\_pocket\\_et\\_autres\\_pdf/3.5 Autres\\_pdf/Temoignage-utilisation-Plaquettes-de-bois-2023.pdf](https://equipedia.ifce.fr/bibliotheque/3. Guide_pocket_et_autres_pdf/3.5 Autres_pdf/Temoignage-utilisation-Plaquettes-de-bois-2023.pdf)



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### Ideas to Ideas to Animate a Workshop about the Solution of Leaving Strips of Meadow Uncut

- Ask a **local agricultural supplier** specializing in **horse bedding and husbandry** or a local sawmill to sponsor the workshop.
- Find a model farm where the workshop can take place.
- Complete the required tasks and let the participants take part in these demonstration tasks so that they can get to know the system.

### Proposed structure for the workshop on using native plants for horse bedding in horse stables

#### 1. Introduction to using native plants for horse bedding

- Why native plants for horse bedding?
- Key features and components of native plant bedding (e.g., material, quality).
- Types of native plant bedding which are available on the market (e.g., lavender straw, sawdust, miscanthus).

#### 2. Benefits of using native plants for horse bedding in horse stables

- Cost Savings: Potential long-term savings on bedding materials.
- Increased Efficiency: Faster handling and disposal of bedding.
- Individually adjustable.
- Potential reduced physical strain: Less manual labor for farm workers, especially important for those with physical limitations.

#### 3. How to Choose the most suitable approach

- Evaluation of the needs of the farm.
- Assessment of the structural requirements.
- Features such as material, construction differences of the stable, ease of use.
- Choose the bedding type according to the possibilities for manure recycling on the farm or locally.
- Price comparisons.

#### 4. Hands-On Demonstration

- Bring some different Types of alternative beddings for the participants, to see, feel and smell
- Working with different alternative Beddings and giving participants a chance to try them out.
- Proper techniques for maximizing efficiency and reducing wear on the equipment.

#### 5. Case Studies and Real-World Examples

- Examples of farms or equestrian centers using native plant bedding.
- Discussion of how they have integrated these into their daily operations and how they valorised manure.
- Lessons learned and tips from farm operators who are using these beddings, concerning storage, handling, recycling, market approaches, etc.



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## **6. Cost Analysis and Return on Investment (ROI)**

- Initial cost of inventing new native plant bedding vs. long-term savings in bedding materials.
- How to calculate ROI based on farm size, workload, and usage.

## **7. Q&A Session**

- Open floor for participants to ask questions about specific concerns or experiences.
- Address any uncertainties regarding the effectiveness or cost of native plant beddings.

## **8. Wrap-Up and Resources**

- Summary of key points covered in the workshop.
- Additional resources for further learning (websites, suppliers, online communities).
- How to access special discounts or offers on native plant bedding if partnered with suppliers. .