

# Horse Walker



**Thematic Area:** Socio-economic performance.

**Priority:** How can working conditions be improved?

**Need:** How to reduce arduousness of work; What mechanization, digitalization and robotics solutions can enhance working conditions on my equine farm?

**Solution EU Number:** WC-12.

**Content of the Solution:**

Use of horse walkers to reduce the amount of work and at the same time provide exercise for the horses.



### Reasons for Implementing this Solution

To mechanize part of the work. A horse walker provides horses with exercise, which is essential for their health and well-being. It enables targeted warming up and cooling down, prevents injuries and health problems such as colic or muscle tension and can be used for rehabilitation.

### Description of Solution Strategies

A horse walker is a circular walkway for horses that is surrounded by a fence. A rotating mechanism is used to encourage the horses to move. This mechanism has a control box with which the duration, direction and speed can be changed so that the horses can be worked either at a walk and/or trot. Most horse exercisers can accommodate 2 to 8 horses at a time.

The most common standard sizes have a diameter of 10 - 20 m. Horse walkers can have different types of fencing (wood, beoband, metal, as fence or wall) surfaces and shapes (round or oval - sliding rails) and can be covered or uncovered. There are also suspended horse walkers that are suspended from a roof. The empty space in the middle of the horse walker can be used as a lunging circle or for storage. This horse walker is ideal for space-saving purposes.

### Implementation Steps

1. Assessment and planning:
  - Evaluate the specific needs of your farm, including the number of horses, available space, and budget.
  - Determine the best location for the horse walker, considering factors like proximity to stables and ease of access.
  - Be aware of regulations regarding building permits.
  - Get professional advice.
2. Selection of Equipment:
  - Choose the type of horse walker that best suits your needs (e.g., standard, suspended).
  - Decide on the type of fencing (wooden, Beoband, round fence) and other features like roofing and surface material.
  - Pay attention of the type of equipment to limit stress : The major reason that horses are stressed on the walker is because of the way the walker operates. Trapping a flight animal inside a partition, with bars in front and behind, and no escape route, mimics the predator-prey chase mechanism, which is likely to cause a stress reaction.
  - A study by Valenchon et al. (2017) found that loud noises contribute to cause stress in horses. So pay attention to limit loud noises.
  - Limiting the visual field of a prey species can cause added stress (Hanggi and Ingersoll, 2012). So, pay attention to choose open view systems.
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3. Installation:
  - Prepare the site by clearing the area and ensuring a level surface.
  - Install the horse walker according to the manufacturer's instructions, including setting up the control box and ensuring all safety features are in place.
4. Training and Integration:
  - Gradually introduce the horses to the walker, starting with short sessions at low speeds. Any new horse arriving on the yard should be trained to use the horse walker by following a rehabilitation programme. This is particularly important if they have prior experience of using a horse walker. These changes are recommended to improve the horse's welfare (Waran and Randle, 2017).
  - Train staff on how to operate the walker safely and effectively, including adjusting settings and monitoring the horses.
  - Pay attention to the use of the walker to limit stress : horses are more stressed when they are isolated because of their gregarious instinct. So don't put a horse alone in the walker.

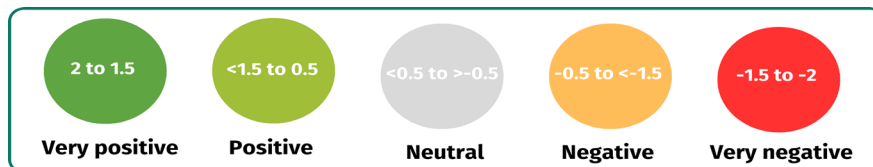


# Horse Walker

- The horse walker should not be used during adverse weather conditions to ensure that the noise is kept to a minimum on the walker, thus reducing overall stress. The electricity should be used with caution on horses that will not walk forwards, so long as they have been proven to not be stressed on the walker.
5. Maintenance and Monitoring:
- Establish a regular maintenance schedule to keep the walker in good working condition, including checking for wear and tear.
  - Monitor the horses' use of the walker to ensure they are benefiting from the exercise and adjust the program as needed.

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

TOPIC	SCORE
Social	1.00
Economics	1.00
Welfare	1.00
Health	1.00
Environmental	0
Pasture access and management	0
Global	0.67



Color coding explanation



**Socioeconomics:** This solution will support the socio-economic performance of your farm because the mechanical training system ensures that horses receive up-to-date training while reducing human labor, and when used properly, the walker improves the working conditions for the farmer.



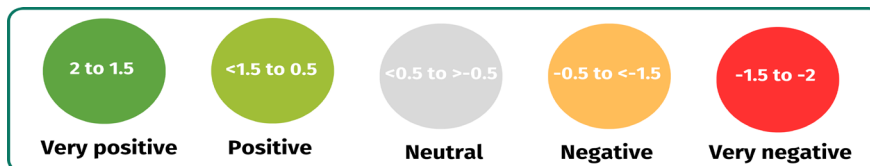
**Health & Welfare:** This solution may be helpful for better health performance of the farm having the possibility to treat musculoskeletal health problems or pain on condition that horses are accustomed to this type of movement and are monitored for not being harmed or stressed during exercise. However, it can't replace daily free movement of long duration. Its positive effect on emotional state is not confirmed yet.



**Environmental Sustainability:** This solution has no direct effect on the performance of the farm on environmental sustainability or pasture management.

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

TOPIC	SCORE
Social	0.75
Economics	0.17
Welfare	1.42
Health	0.67
Environmental	0
Pasture access and management	0
Global	0.50



**Socioeconomics:** This solution supports the social performance of the farm facing external challenges but won't have any effect on economic performance because it positively contributes to labor efficiency but may lead to higher electricity costs.



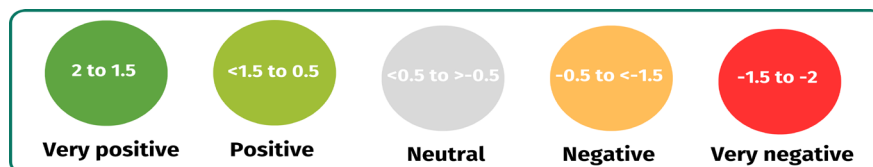
**Health & Welfare:** This solution may be helpful to maintain health and welfare performance of the farm facing external challenges offering the possibility of regular movement for colic or recovering horses, so decreasing the pain and so vet costs. The effects on farm performance as per welfare are ambiguous and need more analysis. But in case of infectious disease, it could be better to not use it.



**Environmental Sustainability:** This solution has no effect on farm's ability to recover in terms of environmental sustainability or grassland management.

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

CHALLENGES	SCORE
Inflation	0.25
Pandemic	0.58
High welfare standard	1.00
High infectious diseases	0.50
Extreme weather event	0
Loss/limited access to grassland	0.50



**Inflation & Social Crises:** This solution won't have any effect on the global performance of the farm facing inflation given the rising cost of energy. On the other hand, this solution can prove positive during a pandemic by optimising the workforce. Particularly during the pandemic or when labor costs increase, making it easier to regularly train horses and ensure their health.



**Welfare & Diseases:** This solution may help the farm to reduce pain if properly managed. However, since not confirmed as per behavioural effect, it is unknown if it would be helpful for the farm if forced to implement more restricted welfare legislation, like the obligation to provide free movement to horses. It will not have any effect if the farm is faced with infectious disease outbreak.



**Climate Change & Access to Land:** This solution has no effect on a farm's ability to recover in a case of abnormally high temperatures and drought. However, it can have a positive effect on recovery in a case of lost/limited access to grassland.

### Cost-Benefit Analysis

#### Costs

##### Socioeconomics:

- **Initial Investment:** The equipment can be costly, representing a significant investment.
- **Maintenance:** Wooden fences have limited durability and require regular maintenance. Beoband fences can stretch over time.
- **Flooring** needs regular maintenance so running paths in which the horses can injure themselves are prevented.
- Horses must be overwatched during training in the horse walker, so there is additional working time spent.
- If Staff is not properly trained in using the horse walker or if there is any defects or young or untrained horses disturbing the walking process there is a much higher safety risk for horses and workers.

##### Health & Welfare:

- **Training:** Animals might get injured when using the equipment for the first time, so training is required (though it is low).
- **Potential Stress:** Using electricity on separation can cause chronic stress on horses due to electric discharges.
- Potential risk of respiratory problems on dusty floors
- Potential risk of slipping/injuries on slippery floors
- Potential stress if horses have not been sufficiently and carefully accustomed to exercise in the horse walker.



#### Benefits

- **Cost Savings:** Reduces labor costs and increases efficiency.
  - **Improves working conditions** by reducing physical strain on workers by giving them the possibility to work multiple horses at a time : saving time and labor.
  - **Labor Savings:** Reduces the need for specialized labor, decreasing the workload for training horses.
  - **Safety:** Better safety for workers due to less interaction in training the animals, if used correctly.
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- **Customization:** Speed settings can accommodate each horse's needs.
  - **Health Benefits:** Provides exercise for stabled, injured, race, and work horses, helping to prevent health issues and aiding in injury recovery.
  - **Helps prevent health issues** such as colic and muscle stiffness.



### Cost-Benefit Analysis

#### Costs

##### Health & Welfare:

- Potential stress if horse is put in the horse walker alone.
- If the horse walker is not maintained properly there is huge safety risks for horses.

##### Environmental Sustainability:

- Additional space needs to be sealed for installing horse walkers. Stables normally can't give up on riding places or halls, so a horse walker would be additional unnatural land use.
- Usage of additional power to run the horse walker.

##### Cooperation between farms:

- No effects.



#### Benefits

- No effects.

- Shared Resources: Can be shared among multiple farms, promoting collaboration and resource sharing.



# Technical Sheet for Solution Implementation

## Horse Walker

### Additional Resources

#### Websites

- <https://journal.iaabcfoundation.org/horse-walker-stress/>
- <https://www.horseandhound.co.uk/news/study-finds-20-minutes-walker-equivalent-exercise-hours-turnout-696441>
- <https://www.horseweigh.com/kraft/report.html>
- <https://horsesandpeople.com.au/could-your-horse-walker-be-causing-your-horse-unnecessary-stress>
- <https://journal.iaabcfoundation.org/horse-walker-stress>

#### Publications

- Jack Murphy (2008) Innovative Use of an Automated Horse Walker When Breaking in Young Horses, JOURNAL OF APPLIED ANIMAL WELFARE SCIENCE, 11:3, 228-231, DOI: 10.1080/10888700802100991
- Valenchon, M., Lévy, F., Moussu, C. and Lansade, L. (2017) Stress affects instrumental learning based on positive or negative reinforcement in interaction with personality in domestic horses. PLoS ONE. 12(5), pp.e0170783.
- Hanggi, E. and Ingersoll, J. (2012) Lateral vision in horses: A behavioral investigation. Behavioural Processes. 91(1), pp.70-76.



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### Ideas to Animate a Workshop about the Solution: Horse Walker – mechanization in Horse training Tools

- Ask a company specializing in horse training equipment 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 Horse walker.

### Proposed structure for the workshop on Horse Walkers in horse stables

#### 1. Ask a company specialized in horse training equipment 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.

#### 2. Benefits of Horse Walkers in Horse Stables

- Reduced Physical Strain: Less manual labor for farm workers, especially important for those with physical limitations.
- Cost Savings: Potential long-term savings on labor.
- Increased Efficiency: Ability to exercise multiple horses simultaneously.
- Individually adjustable speed settings to accommodate each horse's needs.

#### 3. Practical Applications on Horse Farms

- Training of many horses at the same time.
- More controlled movement than with untrained workers lunging horses.

#### 4. How to Choose the most suitable Horse Walker

- Evaluation of the needs and possibilities, potential building spaces, etc. of the farm.
- Assessment of the structural requirements and Features such as material, construction, ease of use.
- Price comparisons.

#### 5. Hands-On Demonstration

- Live demo of handling the horse walker.
- Testing different models and giving participants a chance to try them out.
- Proper techniques for maximizing efficiency and reducing wear on them.



# Technical Sheet for Solution Implementation

## Horse Walker

### Annex

#### 6. Maintenance and Troubleshooting

- Cleaning and care of modules and parts such as screws, hinges, motor, cables, parting parts, fences etc.
- Readjustment and regular maintenance schedules.
- Regular Maintenance of the strongly used flooring.

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

- Live demo of handling the horse walker.
- Testing different models and giving participants a chance to try them out.
- Proper techniques for maximizing efficiency and reducing wear on the equipment.
- Also include stories about accidents and tips on preventing them.

#### 8. Cost Analysis and Return on Investment (ROI)

- Initial cost of horse walkers vs. long-term savings in labor.
- How to calculate ROI based on farm size, workload, and usage.
- Financial benefits from reducing strain on workers and improving productivity.

#### 9. Q&A Session

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

#### 10. 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 modular facilities if partnered with suppliers.