Animal Welfare.
Worldwide.

Sustaining our Soils:

An animal welfare solution for the environment and the climate

Soil health and animal welfare are closely related. In a sustainable environment, farmed animals can contribute to the soil by providing nutrients, while receiving the food they need from grasslands, crops and trees. However, both suffer disastrous consequences from intensive factory farming: animals are kept in cruel conditions, their excessive waste polluting soils and waters and producing dangerous levels of ammonia to humans and animals.

Intensive animal farming does not work for the planet nor for animals

- It is **responsible for one-sixth of all anthropogenic greenhouse gas emissions** (GHG) and more than **two-thirds of agricultural emissions**[1,2], as well as soil degradation, biodiversity loss, deforestation, and environmental pollution.
- It causes the degradation of our terrestrial ecosystems[3–5], with **more than 3.2 billion people directly affected by land degradation**.
- Soil degradation is a huge **threat to food security**, as 95% of food comes from soils.
- The World Bank calculates **global land degradation to cost USD 85.8 trillion annually**.[6]
- Animal farming is responsible for 80% of **soil acidification** in the EU, while also causing 23-47% of the **nitrogen river load to coastal waters**, and 17%–26% of the phosphorus river loads.[7]
- **Nitrogen pollution** is another concern, as poorly managed animal waste results in water contamination and the eutrophication of aquatic ecosystems.[8]
- This system does not work for **animals** neither: they are kept in intensive farming systems, **suffering their entire lives**, both physically and mentally.[9,10]

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Why animal farming matters for soil health?

- **Ruminants play an important role in protecting grasslands** because they only persist when grazed, and the more regularly they are grazed, the healthier they are.[11]

- Grazing animals and grasslands have coevolved for millions of years, establishing a relationship in which animals get the nutrients they need while providing grasses with the incentives they need to grow healthier.

- Furthermore, **well-balanced animal manure has multiple benefits for soil**[12]: it increases the number of nutrients, reducing the need for additional fertilizers, it reduces soil erosion and improves water filtration.

- Conversely, an overload of manure can cause soil and environmental pollution.

- **Intensive animal farming's excessive need** for feed **creates a dependency on artificial fertilisers** to meet this demand, which results in further soil degradation and the need for more fertilizers.

- **Carbon farming** – which is aimed at increasing organic carbon storage in the soil – is seen as a strong alternative to mitigating carbon emissions.

- However, focusing exclusively on climate mitigation and not **addressing the underlying problems of intensive farming** does not help with the other environmental challenges we face. Additionally, there are limits to the total amount of carbon soils can sequester as well as limits to the amount of carbon sequestered in any given timeframe.

Looking at long-term solutions, helping animals and our planet

- A **sustainable extensive farming system** provides regular outdoor access for animals such as grasslands and takes into account the needs of the ecosystem, including animals, water, soil and plants.

- **An overall reduction in the number of farmed animals** is urgently needed to reduce GHG emissions and to allow for **higher animal welfare farming**, grass-based and mixed-farm systems with beneficial impacts on soil carbon sequestration.

- Animal farming models that pay full regard to ecosystem services need to be promoted and enabled by decision-makers.

- Linking the number of farmed animals to the hectarage, availability and condition of the land would ensure grazing has a positive effect on grasslands.

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FOUR PAWS International
VIER PFOTEN International – gemeinnützige Privatstiftung
Linke Wienzeile 236
1150 Vienna | Austria
Phone: +43-1-545 50 20-0
office@four-paws.org