# Sustainable livestock farming faces scrutiny after Dartmoor fire exposes environmental risks



# The Blind Alleys of Sustainable Livestock Farming

The recent destruction of 500 hectares (1,230 acres) of Dartmoor in a significant fire serves as a stark reminder of the ecological consequences stemming from livestock farming. This event should have been an anomaly in a landscape typically resistant to fire; however, the presence of sheep, cattle, and ponies has altered its character. These animals selectively graze on tree seedlings, inhibiting the regeneration of temperate rainforests, which are naturally less flammable. Consequently, in dry conditions, the accumulated moor grass, bracken, and heather transform into a tinderbox.

The carbon dioxide and smoke released during this incident highlight one of the many environmental impacts associated with livestock grazing. In the face of climate change, narratives promoting the benefits of cattle and sheep farming are being propagated by celebrities, politicians, and vested interests, masquerading under a veneer of sustainability. These claims are reminiscent of the misleading tactics used by the fossil fuel industry, effectively muddling the waters for consumers who yearn to make environmentally responsible choices.

Indeed, the environmental costs of beef and lamb are staggering. They necessitate vast amounts of land—often at the expense of wild ecosystems like forests and wetlands—while also contributing significantly to greenhouse gas emissions. The methane and nitrous oxide produced by these animals compound their environmental footprint, making them the most land-intensive and climate-damaging foods available. The challenge of countering misinformation is exemplified by Brandolini’s law; it takes a monumental effort to disprove fallacies propagated by those with economic motives.

Recent reports from FAI Farms in Oxfordshire and the Sustainable Food Trust (SFT) proclaim the environmental virtues of livestock farming, but a closer examination reveals a troubling pattern of misinformation. FAI Farms, while seemingly earnest, produced a report claiming that their operations achieve net carbon neutrality. However, the methodology was fundamentally flawed. Results derived from merely three fields—three in an expanse of 105—do not constitute adequate representation, especially when factoring in variables that skew results, such as changes in land management and supplementary feeding practices.

Moreover, the SFT, backed by influential figures including King Charles’s agricultural adviser, proposes a radical shift towards cattle and sheep farming on temporary meadows, suggesting that this transition would aid in combating climate change while simultaneously enriching biodiversity. Yet this vision raises significant concerns. Would such a transformation truly mitigate reliance on grain imports? And at what cost to food prices? Discussions with Patrick Holden, the SFT's founder, bring these issues into sharper focus: the reality is that food prices would inevitably rise under such a system, even as extravagant assumptions are made about dietary changes and reducing food waste.

Critical analysis of sustainable farming must also acknowledge conflicting research findings. A study published in the *Proceedings of the National Academy of Sciences* debunks the myth that grass-fed beef is inherently more sustainable than industrial beef. Despite its potential benefits for animal welfare, grass-fed systems remain resource- and land-intensive. Renewable practices, such as adaptive multi-paddock grazing, offer hope for more sustainable livestock management, yet these methods alone do not address the broader environmental impacts associated with livestock farming as currently practised.

With over 105 countries pledging to cut methane emissions at COP26, the reality is that the meat and dairy industry exhibits significant shortcomings in addressing this global challenge. Livestock farming's contribution to greenhouse gas emissions is substantial yet remains poorly tracked among many producers, undermining climate mitigation efforts.

In summary, the entrenched belief in the benevolence of livestock farming is increasingly threatened by evidence of its ecological footprint. The complexity of global food systems necessitates a rethinking not of mere romanticised narratives, but rather a thorough examination of sustainable practices that genuinely support climate resilience, biodiversity restoration, and food security for future generations. The juxtaposition of bucolic imagery against environmental realities reveals a troubling dissonance in how we grapple with the intertwining challenges of food production and climate change.

## Reference Map:

* Paragraph 1 – [[1]](https://www.theguardian.com/commentisfree/2025/may/07/cattle-sheep-farming-sustainable-food), [[2]](https://www.theguardian.com/commentisfree/2025/may/07/cattle-sheep-farming-sustainable-food)
* Paragraph 2 – [[1]](https://www.theguardian.com/commentisfree/2025/may/07/cattle-sheep-farming-sustainable-food), [[4]](https://apnews.com/article/ecf55f5cdf674cbfe68a463fb53e6eae)
* Paragraph 3 – [[1]](https://www.theguardian.com/commentisfree/2025/may/07/cattle-sheep-farming-sustainable-food), [[2]](https://www.theguardian.com/commentisfree/2025/may/07/cattle-sheep-farming-sustainable-food)
* Paragraph 4 – [[1]](https://www.theguardian.com/commentisfree/2025/may/07/cattle-sheep-farming-sustainable-food), [[5]](https://time.com/6835547/regenerative-cattle-farming/), [[6]](https://time.com/6125014/cows-agricultural-emissions/)
* Paragraph 5 – [[6]](https://time.com/6125014/cows-agricultural-emissions/)
* Paragraph 6 – [[3]](https://time.com/6215338/cant-have-a-stable-climate-if-we-keep-destroying-nature/), [[4]](https://apnews.com/article/ecf55f5cdf674cbfe68a463fb53e6eae)

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## Bibliography

1. <https://www.theguardian.com/commentisfree/2025/may/07/cattle-sheep-farming-sustainable-food> - Please view link - unable to able to access data
2. <https://www.theguardian.com/commentisfree/2025/may/07/cattle-sheep-farming-sustainable-food> - In this article, George Monbiot critiques recent reports promoting the sustainability of cattle and sheep farming. He argues that such claims, often backed by the meat industry, are misleading and contribute to climate change denial. Monbiot highlights the environmental damage caused by livestock grazing, including deforestation, increased fire risk, and greenhouse gas emissions. He emphasizes the need for accurate information to combat misinformation and advocates for sustainable food systems that do not rely on livestock farming.
3. <https://time.com/6215338/cant-have-a-stable-climate-if-we-keep-destroying-nature/> - This article discusses the rapid progression of climate change and the critical role of Earth's natural ecosystems in regulating climate through photosynthesis. It highlights how deforestation and unsustainable land use practices, such as over-grazing, release carbon and diminish future carbon storage capacity. The piece proposes the Carbon Law for Nature, aiming for net-zero land-sector emissions by 2030 and annual negative emissions of 10 billion tons by 2050, emphasizing the need to protect and restore carbon-rich ecosystems and transform agricultural practices.
4. <https://apnews.com/article/ecf55f5cdf674cbfe68a463fb53e6eae> - A study published in the Proceedings of the National Academy of Sciences found that grass-fed beef does not produce fewer carbon emissions compared to industrial beef, even in the most optimistic scenarios. This challenges the perception that grass-fed beef is more environmentally sustainable. While it may offer other benefits like improved animal welfare, it remains more resource- and land-intensive, requiring more animals to produce the same amount of meat due to slower growth rates. The study underscores the importance of accurate information for consumers making environmentally conscious choices.
5. <https://time.com/6835547/regenerative-cattle-farming/> - This article explores regenerative cattle farming as a solution to reduce carbon emissions and improve biodiversity. Experts highlight that industrial livestock production methods are the main environmental strain, and practices like adaptive multi-paddock (AMP) grazing, where cattle are rotated among different land plots, can create carbon sinks, support plant diversity, and allow soil recovery. These methods result in significant carbon sequestration and reduce the need for chemical inputs, leading to both environmental and economic gains for farmers.
6. <https://time.com/6125014/cows-agricultural-emissions/> - At COP26 in Glasgow, over 105 countries pledged to cut methane emissions by 30% by 2030. However, a report by the FAIRR Initiative indicates that the meat and dairy industry is not adequately addressing this issue, contributing significantly to methane emissions and undermining these pledges. Livestock, particularly cows, emit large amounts of methane through digestion and waste management practices. Despite the significance of the livestock sector’s emissions, only a small fraction of meat and dairy producers are tracking these emissions, with little progress made overall.
7. <https://www.nature.com/articles/s41598-017-09855-1> - This study conducted a five-year experiment in the Hulunber meadow steppe of China to examine the effects of six stocking rates on CO₂ flux. The results showed significant differences in CO₂ fluxes by year, treatment, and month. The study found that grazing decreased ecosystem CO₂ emissions rates, with CO₂ fluxes decreasing with increasing grazing intensity and duration. The research provides important information to better evaluate the role of livestock grazing management in regulating greenhouse gas emissions.