

# HAVING POSITIVE CONVERSATIONS AROUND COP26





# PURPOSE

Quality Meat Scotland (QMS), Agriculture and Horticulture Development Board (AHDB) and Meat Promotion Wales / Hybu Cig Cymru (HCC) have collated this pack of materials to help positively manage the reputation of red meat during COP26 and beyond. It includes a number of assets and materials that can be used throughout the conference, forming a common narrative for the British red meat industry.

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# MYTH-BUSTING



**MYTH:** BRITISH LIVESTOCK FARMING IS ONE OF THE BIGGEST SOURCES OF GHGS (GREENHOUSE GASES)



**TRUTH:** AGRICULTURE'S NET GHG IS SIGNIFICANTLY LOWER THAN OTHER INDUSTRIES

CIEL 2020 states that all livestock in the UK emit 6% of total GHG emissions, with crops emitting 4%. The UK is also predominantly grassland, with 65% of farmland being grass. This land is unable to sustain crops, so grazing animals allows this land to be productive while maintaining it for wildlife habitats, food sources and helping to aid biodiversity.

The contribution of UK livestock to GHG emissions is similar to the percentage of GHG emissions from food waste from households and businesses (5%), and much less than that from transport (27%) or our energy supply (21%).

Watch a short clip of Dr Frédéric Leroy speaking at the QMS 'Meat the Future' conference [here](#).



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“If we got rid of all farmed animals, we would still have a climate problem” says *Prof Bruce Whitelaw. The Roslin Institute. The Cut*

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## MYTH: LIVESTOCK ARE TO BLAME FOR CLIMATE CHANGE



## TRUTH: UK COWS AND SHEEP ACCOUNT FOR ONLY 5.7% OF NET UK EMISSIONS – AND THAT FIGURE IS CONSTANTLY REDUCING

Ruminants (like cattle and sheep) are the only species able to transform marginal grasslands, which have few alternative uses, into food for the population. At a time when the population is increasing so dramatically, it is essential that livestock rearing continues, to ensure that land can be used effectively for growing crops and global food security is maintained. Animals also play a vital role in growing crops effectively and sustainably, as manure enriches the soil with nutrients to help them grow.

Responsible and strategic livestock farming is a highly productive industry which produces a large amount of food for the population. When carried out effectively, carbon emissions can be minimised, with meat production playing an important role in global food security.



COWS & SHEEP

5.7%



OTHER AGRICULTURE

4.3%



RESIDENTIAL

15%



BUSINESS

17%



ENERGY SUPPLY

21%



TRANSPORT

27%

## GREENHOUSE GAS EMISSIONS IN THE UK

The other 10% is attributable to the remaining sectors: waste management, industrial processes, the public sector and the land use, land use change and forestry (LULUCF) sector. The LULUCF sector includes both sinks and sources of emissions.

Source: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/957887/2019\\_Final\\_greenhouse\\_gas\\_emissions\\_statistical\\_release.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/957887/2019_Final_greenhouse_gas_emissions_statistical_release.pdf)





## MYTH: UK FARM METHANE EMISSIONS ARE RESPONSIBLE FOR GLOBAL WARMING



## TRUTH: METHANE IS A 'FLOW' GAS THAT BREAKS DOWN AND DISAPPEARS FROM THE ATMOSPHERE

In livestock farming, the three gases that are emitted into the atmosphere by farming activities are carbon dioxide, methane and nitrous oxide. These gases vary in potency and in the length of time they last in the atmosphere. For example, methane is around 28 times more potent than CO<sub>2</sub> but only lasts for around 12 years, whereas CO<sub>2</sub> lasts for up to 200 years. Biogenic methane (that comes from cattle) is a flow gas which can be recycled - hence its lower lifetime in the atmosphere.

Some scientists think that the way biogenic methane emissions are calculated should be reconsidered, as stated in the latest Intergovernmental Panel on Climate Change (IPCC) report:

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**“Expressing methane emissions as CO<sub>2</sub> equivalent emissions using GWP100 overstates the effect of constant methane emissions on global surface temperature by a factor of 3-4 over a 20-year time horizon.”**

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It has also been argued that as well as livestock there are other environmental polluters, such as fossil fuels, industry and transport. In fact, while emissions of the entire agricultural sector (including livestock and aquaculture) account for 10% of the total, those due to the use of fossil fuels represent a far more important 64%. It is also important to make the distinction that carbon emissions from livestock farming vary across the globe and the UK is, in fact, a relatively sustainable place to produce meat.







## **MYTH:** FARM ANIMALS USE TOO MUCH WATER



## **TRUTH:** ALMOST ALL WATER USED TO PRODUCE UK BEEF AND LAMB IS RAINWATER

Rainwater makes up around 90% of the water needed to produce red meat and dairy in Britain, which is convenient seeing as we get so much rain!

This means only a small amount of treated or tap water is needed to produce British beef, lamb, pork.

Producing red meat in sustainable systems can use as little as

# 1.5%

of the water resources of other systems across the world





**MYTH:** LAND USED TO GRAZE LIVESTOCK  
COULD BE USED TO GROW CROPS INSTEAD



**TRUTH:** AROUND 65% OF FARMLAND IN THE UK IS BEST SUITED  
TO GROWING GRASS RATHER THAN OTHER CROPS

Arable and livestock farming are intrinsically linked. Animals play a vital role in growing crops effectively and sustainably, because animal manure is needed to enrich the soil with nutrients in order to help them grow. Without livestock, we would increase our reliance on chemical fertilisers, which

are produced by using non-renewable energy, therefore further contributing to our carbon footprint. 65% of the UK's agriculture land is marginal grassland, unsuitable for uses other than livestock grazing.

**65%**

of farmland in the UK is  
best suited to growing grass  
rather than other crops







## **MYTH:** BRITISH COWS AND SHEEP EAT CROPS THAT HUMANS COULD EAT



## **TRUTH:** OVER 90% OF BEEF AND SHEEP FEED IS GRASS, SILAGE AND BREWERS' GRAIN MEANING THE INDUSTRY IS NOT DRIVING GLOBAL SOYA PRODUCTION

The UK climate is ideal for growing grass for animals to eat. Around 65% of farmland in the UK is best suited to growing grass rather than other crops. If we did not graze livestock on it, we could not use it to produce food.

Grazing livestock on this land allows us to turn inedible grass into high quality, nutrient-rich beef, lamb, and dairy. Actively managed pastures that are grazed by livestock are also a good carbon sink, capturing carbon dioxide (CO<sub>2</sub>) in the grassland and storing carbon in the soil which could otherwise be released into the atmosphere, as are hedgerows that separate fields. If this land was put to other uses, and the soil was disturbed, there is a risk that much of that carbon would be lost to the atmosphere as CO<sub>2</sub>.

Feeding cattle and sheep a small amount of cereals, or protein crops, to supplement a forage-based diet enables them to produce an increased amount of protein for people to eat. For example, beef and dairy cows have been shown to create more protein than they take in from crops that could be eaten by people. For every kilo of plant protein that could be eaten by people that dairy cows eat, they produce 1.41 kilos of edible protein output for people. Beef cattle produce 1.09 kilos of edible protein output per kilo of input they receive from potentially human-edible plant protein.

Livestock farmers also use co-products like brewers' grains and by-products like bread crusts to feed their animals. This helps reduce the food chain's greenhouse gas footprint and prevents these products from ending up in landfill.



Source: Use of human-edible animal feeds by ruminant livestock, Wilkinson and Lee, Animal, 2017  
British Livestock and Climate Change, NFU, NFU Cymru, NFUS, UFU  
Co-products, an essential part of animal nutrition, European Feed Manufacturers' Federation, June 2019





**MYTH:** CUTTING LIVESTOCK NUMBERS IS A STRAIGHTFORWARD WAY TO REDUCE OUR ENVIRONMENTAL IMPACT



**TRUTH:** WITHOUT LIVESTOCK, WE WOULD INCREASE OUR RELIANCE ON CHEMICAL FERTILISERS, WHICH ARE PRODUCED BY USING NON-RENEWABLE ENERGY, FURTHER CONTRIBUTING TO OUR CARBON FOOTPRINT

Suggesting that people should stop or cut down on the amount of red meat they consume is not the answer to improving the UK's environmental impact and reducing carbon emissions.

Arable and livestock farming are intrinsically linked. Animals play a vital role in growing crops effectively and sustainably, because animal manure is needed to enrich the soil with nutrients in order to help them grow.

Without livestock, we would increase our reliance on chemical fertilisers, which are produced by using non-renewable energy therefore, further contributing to our carbon footprint.







**MYTH:** LIVESTOCK FARMERS ARE NOT DOING ANYTHING TO HELP THE ENVIRONMENT



**TRUTH:** THE INDUSTRY IS DOING LOTS TO HELP THE ENVIRONMENT



## CARBON SEQUESTRATION

The soil is alive with micro-organisms and when plants take carbon from the air, as well as for their own growth, they use it in a symbiotic relationship to feed the soil microbes in exchange for nutrients and other ecological functions.

Plants do this by releasing exudates via their roots in the form of many different carbon compounds. Organic matter from the biomass of plant roots as they grow and die, plant matter trodden into the soil by grazing cows, along with the manure they leave behind, all adds carbon (and other nutrients), which the microbes ultimately convert into complex and very stable carbon compounds called humus.

Each time a cow takes a bite of grass it triggers the plant to release exudates in order to receive in return the nutrients needed for rapid regrowth. The grass's rate of photosynthesis goes up, more grass (biomass) is grown and more carbon is removed from the air and pushed down into the soil. The action of grazing repeatedly pushes the grass back into its growth stage and as long as grass is actively growing, carbon is being removed from the atmosphere and sequestered into the ground.



## PREVENTING TOPSOIL DEPLETION

In the UK, topsoil depletion is so severe that in 2014 the trade magazine Farmers Weekly announced we may have only 100 harvests left.

Letting arable land lie fallow and returning it to grazed pasture for a period – as farmers used to, before artificial fertilisers and mechanisation made continuous cropping possible – is the only way to reverse that process, halting erosion and rebuilding soil, according to the UN Food and Agriculture Organisation. It also helps to return nutrients to the soil, known as nutrient recycling.





## SUSTAINABLE FOOD SOURCE

Only ruminants are able to transform grass and forage land into food for us, such as dairy and meat, and there is a large amount of marginal grassland which can't be used for anything other than livestock grazing. From Wales to the Scottish Highlands, there are many upland areas in Britain unsuitable for growing crops but perfect for allowing livestock to graze.

The soil will be able to hold huge amounts of water and provide flood protection for lower lying areas. And, when the farmers are making a living by selling milk and meat from their grass-fed animals, there is a perfect cycle of sustainability: good for the soil, good for the environment, cattle with a good life, producing healthy food for us.



## BIODIVERSITY

Livestock grazing is crucial to encouraging and maintaining biodiversity. Without maintaining a low level of grazing across grasslands, species-rich grasslands are replaced by taller, wild grasslands with lower species diversity. This was demonstrated when agricultural subsidies transitioned to area payments, leaving much grassland unmanaged, and resulting in a sharp decrease in biodiversity.



## SOCIAL AND ECONOMIC BENEFIT TO RURAL COMMUNITIES

Livestock farming can provide vital social and economic benefits to rural communities, such as food supply, source of income, source of employment etc.



## FLOOD PROTECTION

When managed effectively, marginal grasslands can act as the perfect sink for water, providing flood protection for lower lying areas. These sinks can also feed into the water supply, helping to supply water for consumption to large city populations.



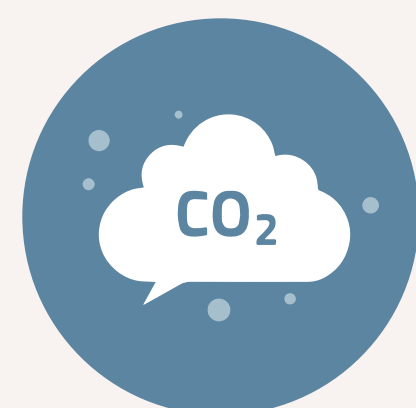
# WHAT IS THE FARMING INDUSTRY DOING TO HELP?



Taking action to control soil erosion



Protecting peatland and moorland from damage by avoiding ploughing, drainage and over grazing



Considering reduced cultivation to protect farm soils and reduce carbon losses



Managing existing farm woodlands and considering new planting



Creating wildlife corridors along water margins, field margins and headlands



Protecting and where necessary restoring wetlands including floodplain management

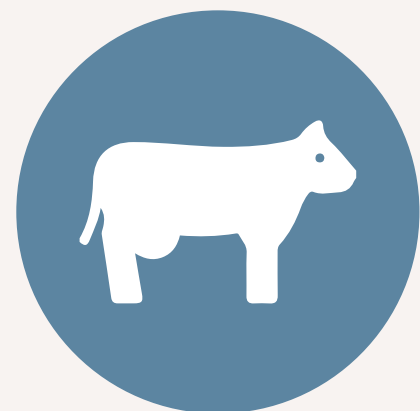




Planting trees and wild flowers



Ensuring farms are run efficiently - generally, a more efficient farm is a more sustainable farm



British livestock farmers are working to conduct regular carbon audits to measure their carbon outputs, allowing them to identify how they can work to reduce their farm's carbon footprint





# VIDEO RESOURCES



*Consumer videos highlighting sustainability*



*Sustainability video from the QMS Health & Education team*



# SHAREABLE STATISTICS



Around

# 65%

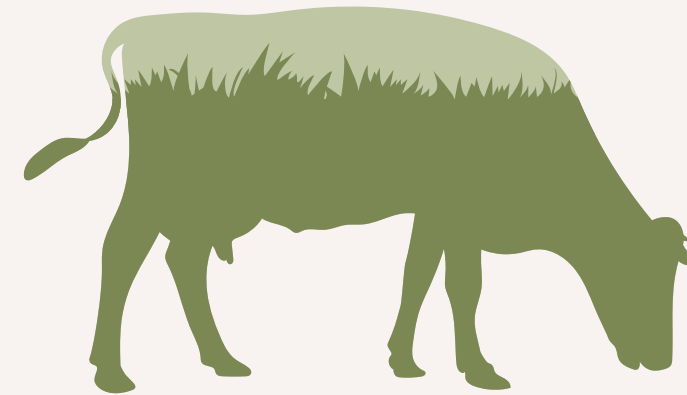
of farmland in the UK is unable to sustain food crops, but is ideal for grazing cattle and sheep. The UK climate is well-suited for growing grass for animals to eat.



Around

# 70%

of a typical British beef cattle herd's diet is grass, with the remainder made up of by-products, silage and grains from crops which would never have been used in the human food supply chain.<sup>6</sup>



"Red meat from Britain is among the most sustainable in the world. Farming contributes positively to the management of our unique landscape, supporting sequestration of carbon in soils, grassland, hedgerows and trees. Our systems deliver for the environment and rural communities and provide high quality, nutritious foods for consumers."<sup>3</sup>



Cattle and sheep accounted for 26.2mt/ CO<sub>2</sub>e, equivalent to as little as

# 5.7%

of the UK's total emissions.<sup>5</sup>

# 90%

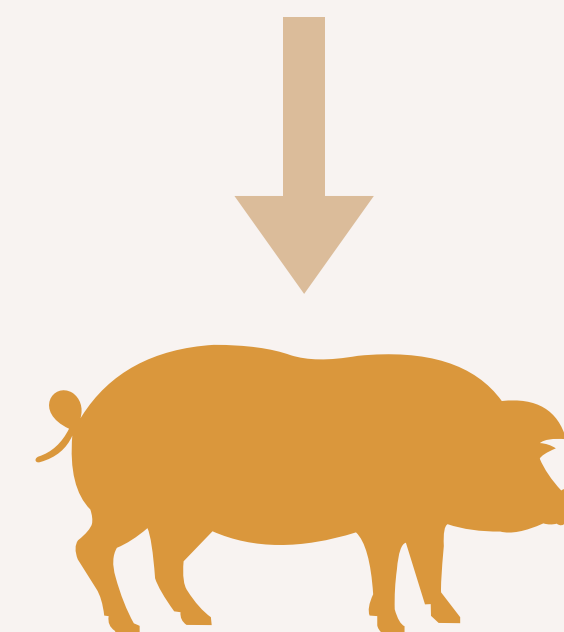
of the water needed to produce red meat and dairy in Britain is rainwater.<sup>2</sup>



The global warming potential of Scottish pig farms is down by almost

# 40%

over the last 20 years.<sup>4</sup>



Source 1: Defra 2020 - [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/941991/agriclimate-10edition-08dec20.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/941991/agriclimate-10edition-08dec20.pdf)  
 Source 2: UNESCO IHE and AHDB - [https://waterfootprint.org/media/downloads/Report-48-WaterFootprint-AnimalProducts-Vol1\\_1.pdf](https://waterfootprint.org/media/downloads/Report-48-WaterFootprint-AnimalProducts-Vol1_1.pdf)  
 Source 3: Nigel Scollan, Director of The Institute for Global Food Security and Professor of Animal Science at Queens University, Belfast  
 Source 4: QMS  
 Source 5: GOV.UK - <https://www.gov.uk/government/statistics/final-uk-greenhouse-gas-emissions-national-statistics-1990-2017>  
 Source 6: DEFRA - [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/831119/Cattle\\_Farm\\_practices\\_survey\\_April\\_2019-12sep19.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/831119/Cattle_Farm_practices_survey_April_2019-12sep19.pdf)

**CLICK TO DOWNLOAD AND SHARE**



# QMS ACTIVITY

- ✓ TV advert in STV's green theme
- ✓ Video on Demand – Sky Go and STV player
- ✓ Our campaign will reach 62% of adults in Scotland
- ✓ Social Media adverts
- ✓ Sustainability game live in October
- ✓ Sustainability education videos
- ✓ Joint webinars with Good Food Champions





# QMS CAMPAIGN ACTIVITY TO LOOK OUT FOR:



Key Visuals

STV Advert



# AHDB ACTIVITY

- ✓ An 'always on' social media campaign promoting positive messages around British food and farming.
- ✓ Full page adverts in The Guardian newspaper focusing on sustainability messaging.
- ✓ Mobilising AHDB Farming Ambassadors, a group of farmers who will be sharing positive messages on their social media channels around British food and farming.

# HOW GREEN IS RED MEAT?

Red meat produced in the UK is amongst the **most sustainable** in the world.

Britain's green and pleasant land make it an ideal place to graze livestock, in fact, according to a 2020 CIEL report\* the carbon footprint of beef and lamb produced in the UK is almost half the global average.

\*Centre for Innovation Excellence in Livestock Net Zero Carbon & UK Livestock 2020

Visit [WeEatBalanced.com/sustainability](https://www.WeEatBalanced.com/sustainability) or scan here for more information.



*We Eat  
Balanced*





# HCC ACTIVITY

- ✓ The HCC Annual Conference will be held on Thursday 11 November, with sustainability and COP26 top of the agenda.
- ✓ Guest speakers will include Diana Rodgers, author of Sacred Cow: The Case for (Better) Meat.
- ✓ The conference will also discuss industry initiatives within Wales to strengthen environmental sustainability.
- ✓ Sustainability messaging posts and video content through all social channels.
- ✓ Influencer work – using influencers with a sustainability messaging/ following and influence to cook and promote Welsh Lamb as a sustainable product.
- ✓ Sustainability pillar page.
- ✓ Programmatic advertising utilising sustainability content.
- ✓ Click to download our environmental infographics [here](#).





# INTERESTING ARTICLES

## SUSTAINABILITY LINKS



The facts about British red meat and milk

[READ MORE](#)



Climate friendly farming: The facts about British meat

[READ MORE](#)



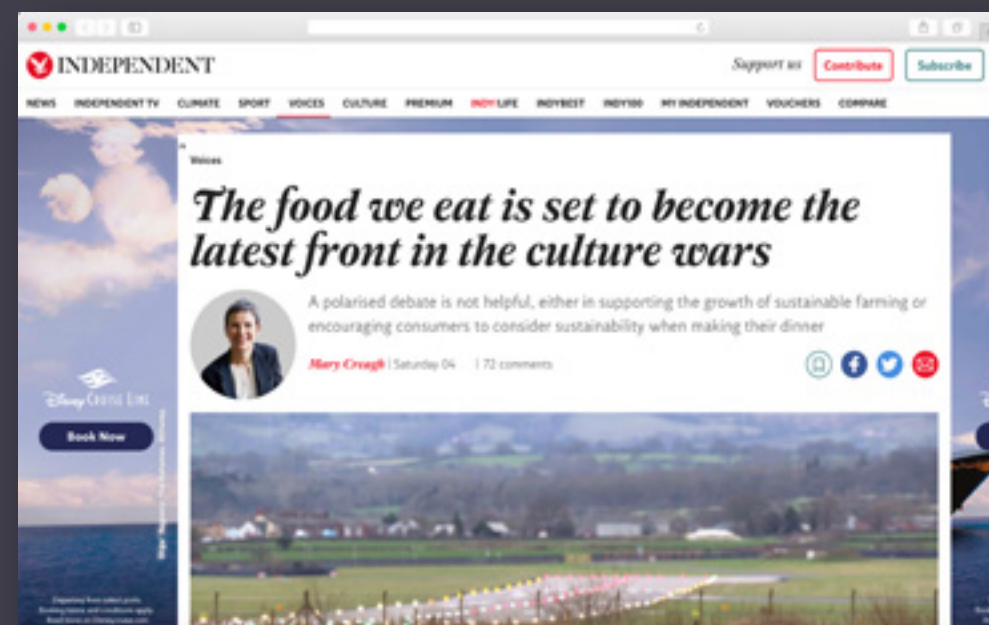
Prince Charles: small-scale family farms at the heart of sustainable future

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Regenerative farming could reduce UK climate emissions

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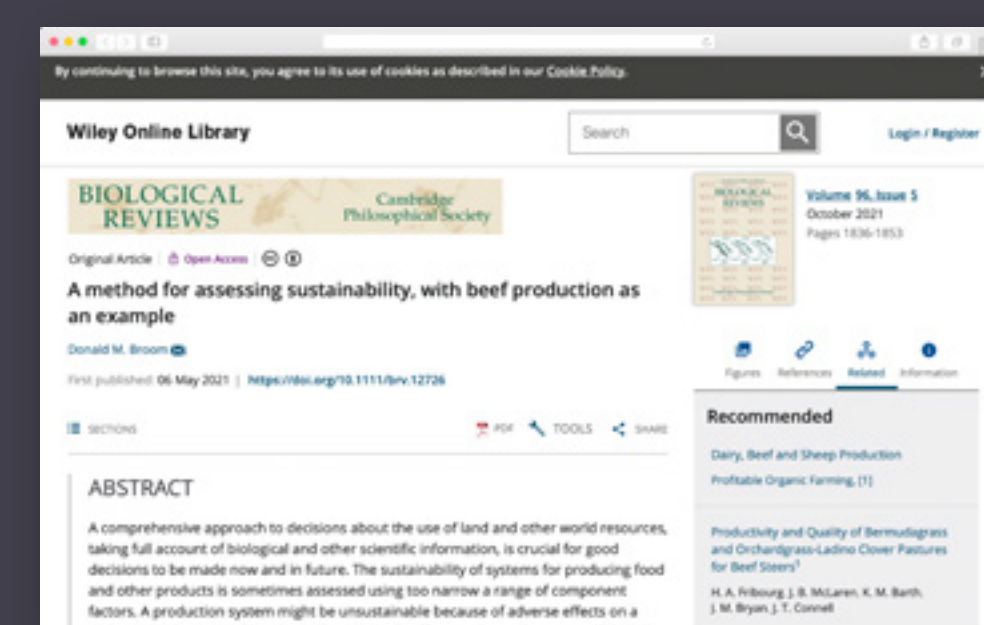
Mary Creagh calling for a less polarised sustainability debate

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Mass tree planting may not be a good thing for the environment – they have to be in the right place

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Donald Broom: a method for assessing sustainability, with beef production as an example

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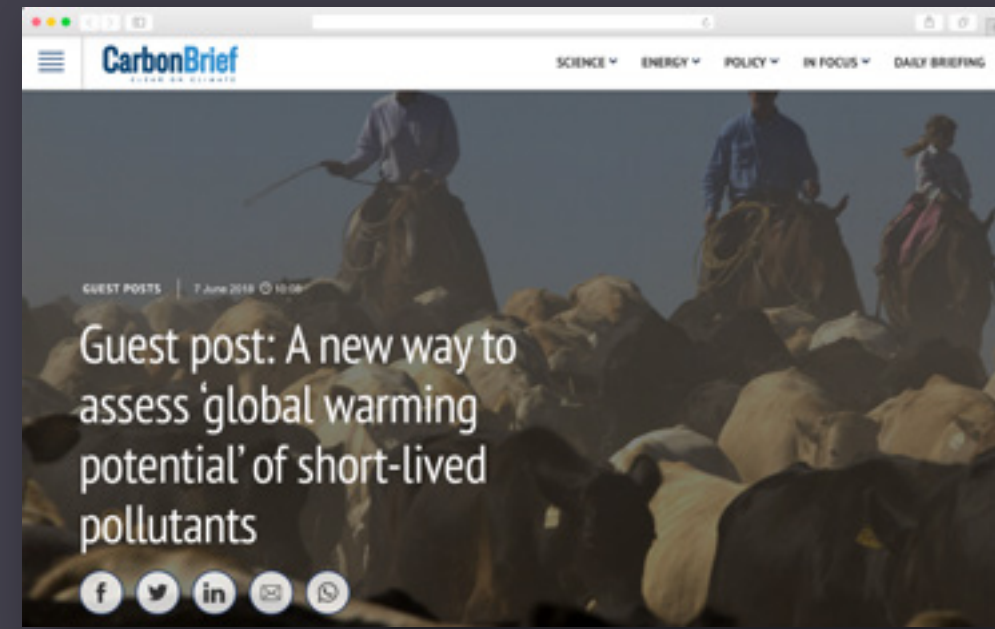
Frank Mitloehner on methane's natural cycle

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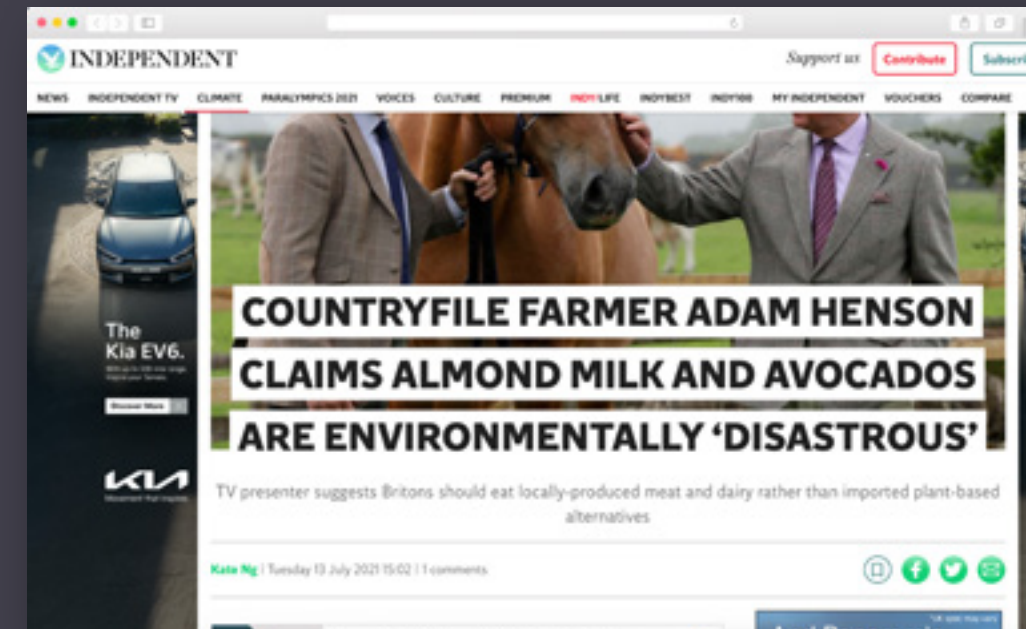
# INTERESTING ARTICLES

## SUSTAINABILITY & HEALTH LINKS



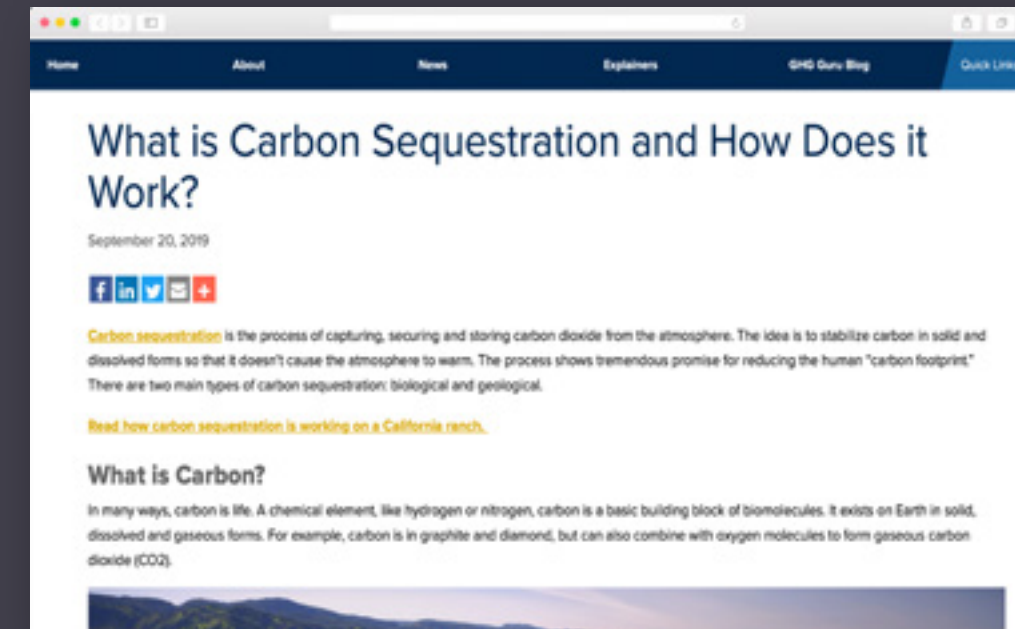
Michelle Cain on methane's natural cycle

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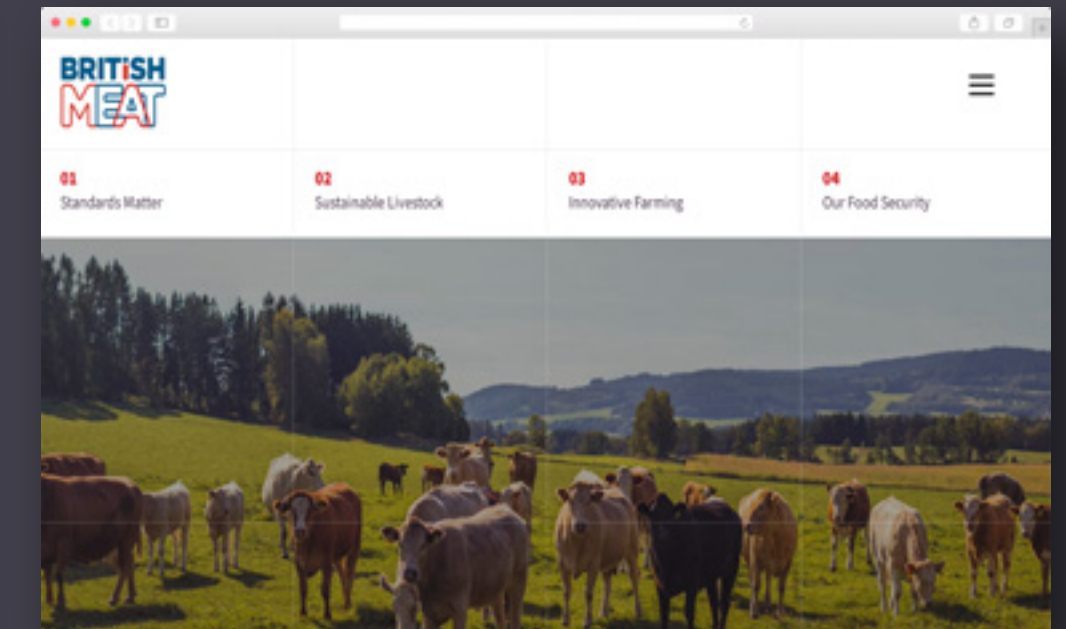
Questioning the sustainability credentials of vegan options such as almond milk

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How does carbon sequestration work?

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BMPA-linked website

[READ MORE](#)



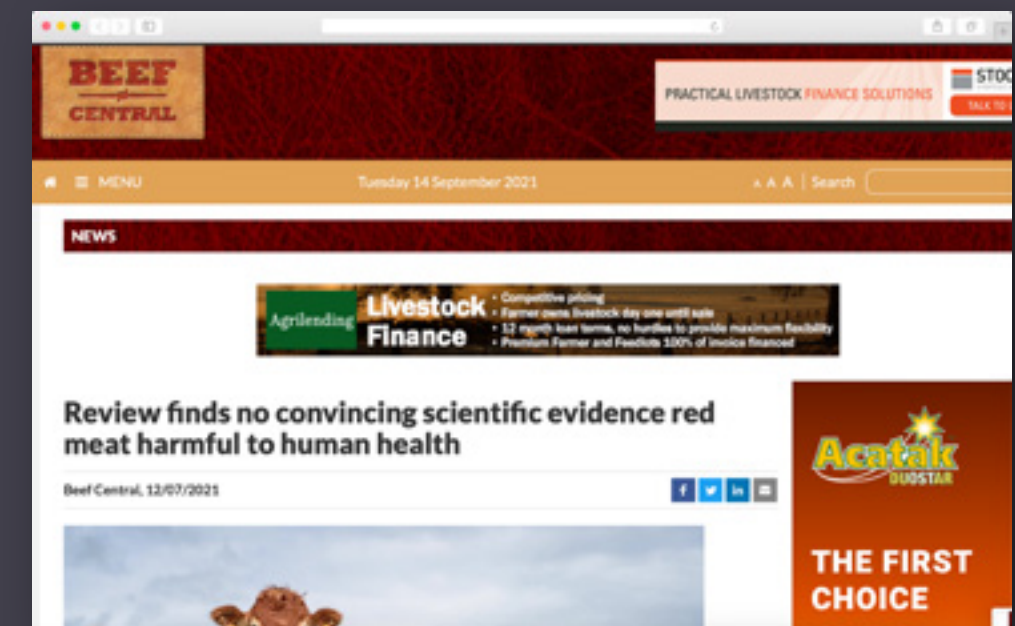
Pro-livestock material on the Sustainable Food Trust website

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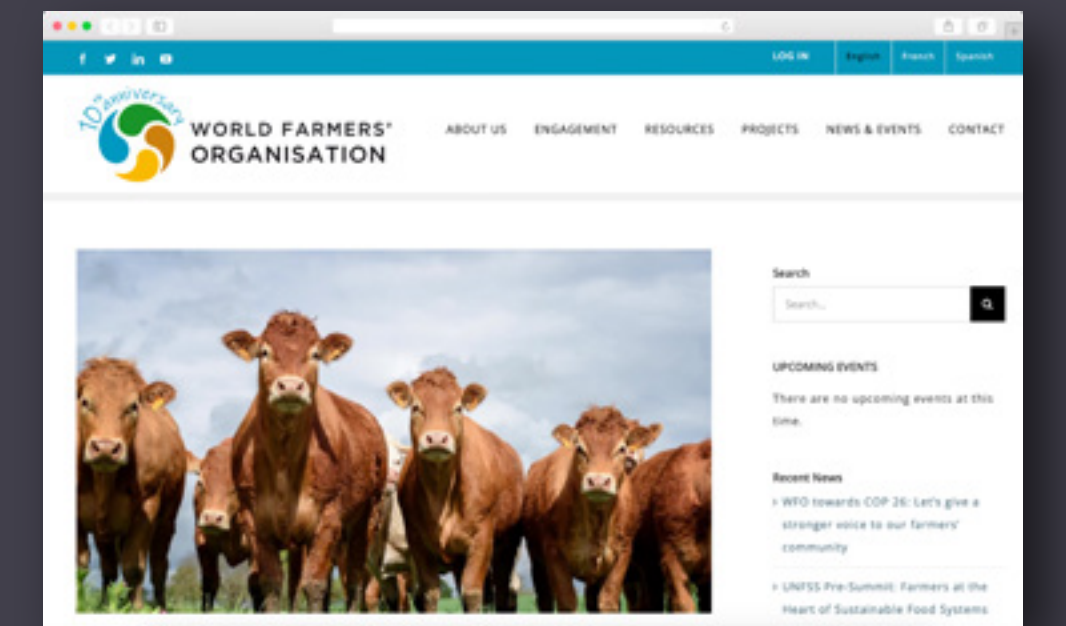
The UN Summit on Food Systems (UNFSS): The Critique by Marion Nestle

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Report by the WFO concluding no link between unprocessed red meat and harmful effects on human health

[READ MORE](#)



Consumption of Unprocessed Red Meat Is Not a Health Risk

[READ MORE](#)



# SOCIAL CHANNELS

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 **TheADHB**

 **@TheAHDB**

 **HybuCigCymru**

 **@hccmpw**

