Sustainability: Rhetoric vs Reality — Ruaraidh Petre, Global Roundtable for Sustainable Beef executive director

Rhetoric

There are numerous opponents of the beef industry, and circumstances have aligned messages from groups that otherwise appear as unlikely allies. Many anti-beef, and anti-livestock positions in general are ideological, and these have been added to over time by those concerned by climate change and misled to believe that ruminants are a leading cause. The rhetoric used includes emissions, animal welfare, human health and biodiversity.

Reality

The reality, both in relation to those negative messages, but also in terms of the global response to them, is much more nuanced. Demand for Beef remains high as do prices. Markets have experienced considerable volatility over the past three years, caused by viruses including African (and classical) Swine Fever, Covid 19 and FMD, with BSE also impacting Brazilian access to the Chinese market. Although the high prices were initially demand led, rising inflation is curbing consumer demand now to some extent while rising input costs push beef prices even higher. The war in Ukraine will undoubtedly have ongoing indirect impacts on livestock markets, particularly in terms of feed, fertilizer and energy costs in Europe and beyond, so we can expect volatility to continue.

Around two thirds of the land we can use for food production consists of grasslands and rangelands, while only around 12% percent is capable of producing a range of human edible crops. It is true that many grazing areas are degraded, and that livestock can be implicated in many cases in that degradation. However, livestock can also be a tool in land restoration.

It is often assumed that intensive systems in more industrialized countries are more polluting than those in lower income countries. This is not actually the case – production systems in industrialised countries have evolved to be efficient and highly productive per capita, and therefore have a lower emission intensity per kg than those in some other producing regions. Closing that efficiency gap while utilizing the most appropriate production systems in different environments is a key priority for GRSB.

Sustainability

Though we should not boil sustainability concerns down to just one metric, one of the areas we are persistently challenged with is that of climate, which is the reason that GRSB set our target to reduce emissions intensity by 30% by 2030. Many member countries already have targets of their own that will contribute to this including Australia, Europe, New Zealand, The United States and Canada. These are further supported by many corporate commitments through Science Based Targets.

There are many steps that can be taken to reduce enteric emissions. Feed additives are a promising avenue, with products such as 3NOP and Asparagopsis delivering reductions in the order of 80% in trials. A wearable device that can capture and break down methane has also been developed. However, not all solutions need to be so high tech – feed and grazing management, including ration and sward composition can already bring about improvements in the order of 30%, and the benefits of good rotational grazing and rest management extend beyond just reducing emissions, e.g. by increasing soil carbon sequestration. Genetics has a role to play as well, both through conventional breeding and the use of advanced data management, IVF and gene discovery. We can expect to see gene editing offer accelerated improvements in traits in the future. We should not ignore the role of animal health and welfare in delivering efficiency benefits – reductions in morbidity and mortality and increases in reproductive efficiency mean a smaller supporting herd to produce the same amount of meat.

In addition to activities that reduce emissions, we should consider the range of options that can increase sequestration – grazing management has already been mentioned, but further improvements can be gained particularly in tropical regions, through silvopastoral systems where again, there are multiple benefits including feed quality and digestibility, surface temperature / shade and production of biomass. Though expensive to establish, such systems can be orders of magnitude more productive when compared to grass alone.

Manure management also provides some opportunities to increase efficiency; biomethane capture adds value and reduces the amount of methane lost, while good manure and fertilizer management reduces losses from those sources while optimizing use.

Sustainable Beef Network

The global roundtable for sustainable beef, and the network of national roundtables, now spans 24 countries, all committed to delivering on our vision of beefs role in a thriving and sustainable food system. Our membership covers the full chain of the beef industry as well as those organizations with an interest in the

sustainability of the sector including civil society (NGOs and academia).

GRSB released our global goals last year , with the full participation and buy in of our members. They cover:

• Climate impact – a 30% reduction in the intensity of emissions by 2030.

• Animal health and welfare – providing animals with an environment in which they can thrive

• And Nature positive production – the beef industry to be a net positive contributor to nature by 2030.

Activities

GRSB has developed a Carbon Footprint Guideline to support consistency in emissions reporting. This is based on the FAOs LEAP methodology and is aligned with the dairy industry's guideline.

We are working with Emerging Ag to support representation at COP27 in Egypt. We have hired Sure Harvest to work on our MRV system to set baselines and report against the global goals; we will work closely with members and national roundtables to streamline this.

In terms of Nature positive production, clearly there is a priority to end land conversion. Water use is another major concern; planned (AMP) grazing can contribute to soil moisture retention/resilience. Ground cover is very important in reducing runoff. Once again, Silvopastoral systems provide multiple wins, including water services.

Water withdrawals for feed are very significant in the U.S. There will need to be a shift in the coming years. CSU and the National Alliance for Water Innovation as well as several partners in the USRSB are working on this to investigate water savings and non-traditional water sources.

In terms of biodiversity there are many deforestation-free commitments from corporates — increasing interest in transparent supply chains. The proposed legislation from EU is likely to result in further moves towards transparent and traceable supply chains.

Conversion of native grasslands to cropping — beef industry is on both sides of this equation. Evidence from AMP grazing suggests grassland productivity can be significantly improved and reduce demand for feed inputs (this is context-dependent).

As far as animal health is concerned, we owe the animals in our care a life worth living.

Good health and welfare benefits the animal and the producer and is the minimum consumers expect. Health and welfare contribute to other goals by closing the efficiency gap. Healthy, well-handled cattle do better and are safer to work with. Good animal health contributes to human health through a reduction in zoonoses, as well as reducing the need for pharmaceuticals that are critical to human health, the overuse of which can lead to resistance. Progress is already being measured and reported on by the Australian Beef sustainability framework on adoption of pain mitigation and awareness of animal welfare standards.

Please join us for the Global Conference on Sustainable Beef in Denver on November 7th-10th where you can hear more detail on all of the above.

References

[1]Full details and background can be found at: https://grsbeef.org/sustainability-goals

[2]https://grsbeef.org/grsb-beef-carbon-footprint-guideline/

[3]https://www.sustainableaustralianbeef.com.au/resources/annual-update2/

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