

Livestock Transition Consultation

Monday, 1st – Tuesday, 2nd November 2021

REPORT



Livestock Transition

How might shifts in diet, trade, and food technology change the game in the livestock sector? And what should farmers do to respond?

Summary

- Participants from within the livestock sector, food manufacturing, finance, food technology, as well as academia, government and NGOs were challenged to consider how and by how much the livestock sector might change over the next decade
- Evidence was presented that illustrated the breadth and depth of challenges facing the livestock sector, but also its fundamental value and staying power
- There was consensus that 'business as usual' is not an option for the UK livestock sector over coming years. But a range of positions were taken as to quite how radical changes in and to the sector would be – from rapid evolution to obsolescence
- Two clear areas of action were identified in response to the discussions:
 - i. Whatever the position held on the likely future – or otherwise – of the sector, it was agreed that a set of common, standardised performance metrics would be invaluable as a means of evaluating, and holding to account, livestock production systems and their alternatives
 - ii. For participants anticipating a continued role for UK livestock, it was agreed that a clear vision, or 'manifesto' should be developed, which defines clearly how, why, and to what standards the UK livestock will operate in the future
- Two important areas of further consideration follow on from the Consultation:
 - i. The technical differentiation of the pork and poultry sector from that of ruminants – beef, sheep, and dairy. Are these parts of the livestock sector likely to follow different pathways, and require different metrics and/or visions?
 - ii. How does livestock production play into evolving risks to the food system – perhaps in particular food security agendas relating to changes in geopolitics, which have emerged since the Consultation.



1. Participants from within the livestock sector, food manufacturing, finance, food technology, as well as government and NGOs were challenged to consider how and by how much the livestock sector might change by the mid-2030s

A combination of powerful trends in the food system mean that it is almost impossible to imagine that the UK's livestock sector will look the same by the 2030s. These trends include much-discussed shifts in food technology, specifically meat and milk substitutes, combined with shifts in consumer sentiment and preferences – the rise of the flexitarian.

But many of the most powerful trends may be less in the public realm. For instance, the shift in food technology could coincide with shifts in food industry preferences. Might retailers and food manufacturers welcome meat and milk substitutes as potentially cheaper ingredients with lower food hygiene hazards or fewer cold chain requirements? Or less exposure to reputational damage, in relation to GHGs, feed sourcing, and 'deforestation risk'?

Policy shifts, from dietary health, to public money for public goods, to post Brexit trade, will all have structural implications. How, for example, will the UK livestock sector differentiate its product in a less regulated global trading environment? What will the influence of ELMs and markets for ecosystem services, like carbon, do to hill farms? Will they shore up extensive beef and sheep production, or replace it? Might these trends spell a resurgence in mixed family farms? Abandonment and rewilding? Intensification? All three?

And how might we expect the finance sector to respond? What is the risk profile and long-term viability of their food industry investments, looked through the lens of ESG agendas and climate and nature-related financial disclosures? Is this an opportunity, or a threat, to UK livestock production?

Any one of these shifts individually could drive structural change in the sector. Acting together, they could transform it. Our question here was not whether and how those trends *should* develop. That might be a little like Canute debating with the tides. Instead our questions were: (1) what are the range of ways these trends might play out, and (2) how best should farmers *respond*?

2. Evidence was presented that illustrated the breadth and depth of challenges facing the livestock sector, but also its fundamental value and staying power

A wide range of challenges to the place of livestock within the food system were discussed in detail. These challenges can be categorised, broadly in the following ways:



Changes to international trading arrangements

Trade was a significant focus of discussions, falling into two categories of challenge: (1) the potential for reduced access into European markets, post-Brexit, and (2) the risk that new trade-deals struck by the UK with countries beyond Europe would expose the UK livestock sector to cheaper imports produced to lower standards. Labour shortages, especially as experienced in abattoirs and affecting pig production, were also noted – though it was acknowledged these may represent serious acute crises, compared to longer-term shifts in trading regimes and markets.

Shifting expectations – nature and climate emergencies

As with other sectors, and those that invest in them, there is growing imperative in the livestock sector to respond to the 'nature and climate' emergencies. This was identified as a risk area, in particular in relation to greenhouse gas emissions – both direct from livestock themselves, and via feed production related emissions (and in the case of soy – relating to deforestation risk). Water quality impacts, especially from dairy and poultry sector were also identified as areas of exposure.

This discussion centred on two important questions: (1) the relative performance of livestock-derived foodstuffs compared to plant-based ones – with livestock generally accepted as performing less well, but (2) the significant variations in performance both within and between different livestock production systems. The latter presenting important opportunities for improvement and differentiation.

Existential questions – consumer preferences and food technology

The question of whether food produced from livestock may become a thing of the past was the focus of significant discussion. Three important factors were explored in detail: (1) the rise of alternative, plant-based meat and dairy replacements, which were explained as having the potential to have lower environmental impact than meat, but also competitive advantage in terms of flavour and texture; (2) shifts in consumer preference, with overall significant reductions in UK meat consumption – albeit with increases in some cheaper products – for example in poultry; and (3) moral questions, specifically whether people may begin to look on killing animals for food as unconscionable.

While the notion of these factors making meat and livestock obsolete seems unlikely right now, it was acknowledged that similar remarkable 'sea changes' have occurred – for instance the demise of horse-drawn transport, or the disappearance of Kodak cameras in the 20th Century.

Although much of the focus of discussions was on challenges to livestock, a range of important factors were discussed relating to the 'staying power' of the sector:



Culture

It was noted that animal products have been consumed by people since the dawn of humanity. Two important dimensions of this were explored. First, the likely resilience of food preferences that include meat, in particular given the long-held place of meat within most of the diverse food cultures and traditions found within modern Britain. Second, the patterns of community, landscape, and farming traditions, including breeding, associated with livestock production. Though much of the latter cultural value is associated with relatively small and shrinking parts of a rapidly changing modern industry and landscape, the fact remains that cultural ties to livestock production and consumption are complex and run deep.

Wider system functions / contributions of livestock

Although many livestock systems involve significant deleterious effects on the immediate and wider environment, livestock production can equally be done in ways that generate significant co-benefits.

Some significant functions under discussion were the role of livestock within rotational, mixed farming systems, where they can be valuable products from break crops and grass-clover leys, established for nutrient-building and weed-management. Relatedly, livestock systems can help build soil organic matter, with attendant nutrient, soil moisture, and carbon benefits – benefiting both the livestock and arable parts in the rotation. Although never likely to be a core part of the livestock production industry, it was noted that conservation grazing also plays an important role in grassland and scrub habitat management in the UK.

Waste valorisation functions of monogastrics (pigs and poultry) were also touched upon, including extant practices that use by-products from food manufacturing, as well as recent-historic and currently banned preparation of food waste as feed.

While in most or all of these cases the livestock systems involved do not represent current mainstream practice, the methods are by no means new or untested. Moreover, it was noted that the wider system functions involved – such as waste, carbon, biodiversity, or input cost management – are very current and live agendas, and only likely to grow in the future.

Global markets

While consumption of food from livestock seems set to continue to decline in domestic UK markets, the pattern is by no means consistent globally. It was noted that this opened up the possibility that the UK livestock sector could adapt and evolve to become more export-oriented than it currently is – accessing large and growing markets for example for white meat and processed dairy in China, and compensating for declines in domestic markets.

It was noted that these potential export-oriented future livestock scenarios are linked to and dependent on the manner in which the UK develops and re-shapes its trading relationships over the coming years, how livestock products factor into these, and how the UK livestock sector differentiates itself on global markets.

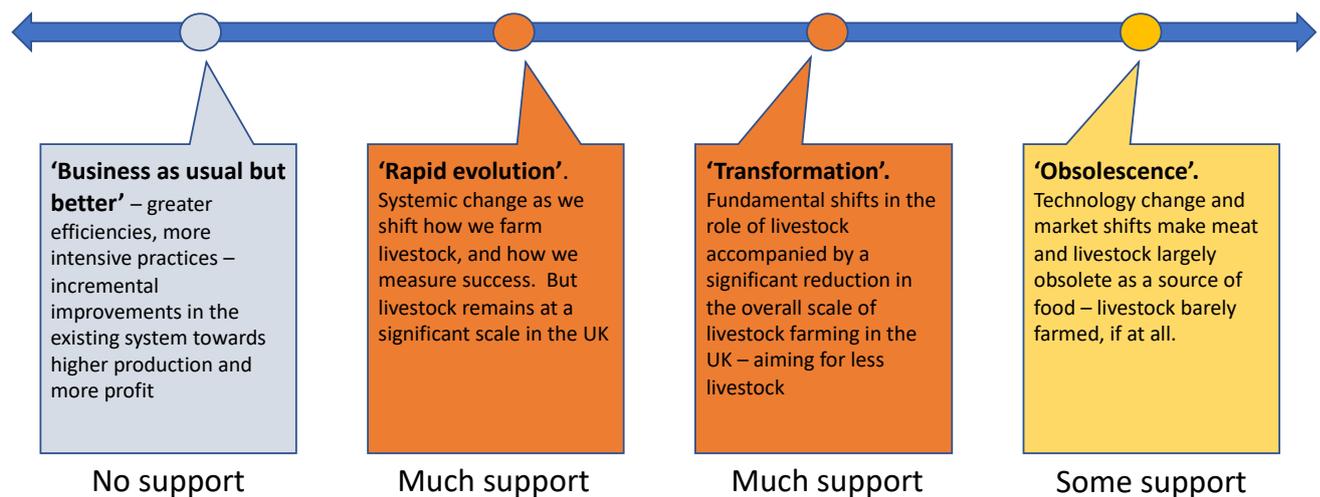


3. There was consensus that 'business as usual' is not an option for the UK livestock sector over coming years. But a range of positions were taken as to quite how radical changes in and to the sector would be – from rapid evolution to obsolescence

Participants were asked to consider the potential future role, size and shape of the UK livestock sector, given the range of factors at play within and from outside the scope and influence of the industry. A time horizon of the mid 2030s was suggested. The question was framed in terms of expectation, rather than preference – although it was acknowledged that people's expectations are usually coloured by their preferences.

To aid the discussion, four scenarios were presented along a spectrum, as set out in the **diagram below**, and participants were asked to group around the option they felt was most likely to reflect the future of the sector.

Diagram: Responses of participants to the likelihood (*not* desirability) of four potential future livestock scenarios in the UK



Notes:

'Business as usual but better' was not seen as a likely future scenario by any of the participants. This scenario was referred to as 'feedlot Britain', and was not considered desirable. All agreed that sustainability impacts and performance would not meet future expectation, and would result in change being forced on the industry. It was also noted that 'outrunning' global competition was a high-risk game, and did not play to the full range of strengths in the UK livestock sector – for instance animal welfare.

'Rapid evolution' and 'Transformation' both attracted the majority of support. The principal differentiations between the two groups were: (1) the extent to which participants expected a downsizing of the livestock sector as being part of the change required, and (2) the level of transformation required in livestock production system – for example how and where feed is produced / sourced. Significant cross-over was also noted, and evidenced by 'waverers' between groups.

'Obsolescence' brought together a smaller but still significant group of participants. The sentiment in this group was that we are on the cusp of a significant phase-shift in the food system – driven by environmental imperatives – particularly carbon – and facilitated by radical developments in food technology. Imagining 'how it would look' a key theme was the opportunity to free-up land, for habitat restoration / rewilding and associated carbon sequestration – following a 'land-sparing' way of thinking.

4. Two clear areas of action were identified in response to the discussions:

- **Whatever the position held on the likely future – or otherwise – of the sector, it was agreed that a set of common, standardised performance metrics would be invaluable as a means of evaluating, and holding to account, livestock production systems and their alternatives**

The defining feature of the discussion around this action was the use of *multiple* metrics. While many discussions around animal-based and other sources of protein focus on greenhouse gas emissions, it was recognised that carbon sits among a range of important performance variables. Examples include water use, land take, exposure to hydrocarbon markets, deforestation risk, welfare, livelihoods – as well as nutritional content. Further to the inherent value and need to track and report these outcomes in and of themselves, it was noted that most or all of these variables interact, and so focusing on one outcome to the exclusion of others can result in perverse or unintended outcomes.

A second consideration within the discussion around multi-metrics was around the way in which they would be used, and how they would confer performance-based benefits. While consumer-facing labelling is often an assumed mechanism for this, multi-metrics can be effectively used in other ways. Examples include standardised reporting in food supply chains, for retailers, food manufacturers, and their investors to track and manage their exposure to sustainability risk variables. It was also noted that they could conceivably also be used by government to incentivise good practice, either through grants or fiscal measures.

The action proposed by the Consultation was to convene an action group, and to approach the British Standards Association, to explore practicalities for development of a standardised multi-metric performance standard.



- **For participants anticipating a continued role for UK livestock, it was agreed that a clear vision, or 'manifesto' should be developed, which defines clearly how, why, and to what standards the UK livestock will operate in the future**

It was noted that despite developments in agricultural legislation, and the important work of the recent RSA report on Food, Farming, and Countryside, the livestock sector lacks a clear vision and roadmap for how it will develop and adapt to the demands, challenges, and opportunities identified in the course of the Consultation.

Rather than waiting for Government (or others) to lead the way, it was strongly felt that the sector itself – and its key stakeholders – had the remit to do this, and should take the initiative. The proposed action here was to convene a cross-industry group, representing farmers, supply chain, and NGOs, to agree, develop, and articulate a clear and well-substantiated vision for UK livestock looking forward into the 2030s.

5. Two important areas of further consideration follow on from the Consultation:

- **The technical differentiation of the pork and poultry sectors from that of ruminants – beef, sheep, and dairy. Are these parts of the livestock sector likely to follow different pathways, and require different metrics and/or visions?**

The important point was made within the Consultation that many of the risks, challenges, and performance variables that UK Livestock needs to grapple with are different for different parts of the sector. The key distinction here is between the white meat – pork and poultry – sectors, and that of ruminants – beef, sheep and dairy. Two principal differentiators are to do with (1) how and where animals are fed – with white meat dependent on feed, and ruminant systems having the option for consuming grass (whether direct, or as silage), and (2) the significant differences in enteric greenhouse gas emissions from ruminants as compared to monogastrics.

Participants noted that much of the discussion within the Consultation was predicated on the ruminant situation, and that there was a residual need to explore and develop an understanding of the different factors at play in these different parts of the sector. Following this, there will be a need to consider whether – and to what extent – the action points of the Consultation should be developed separately for the different parts of the livestock sector.

An important and related point was made in relation to fisheries and aquaculture.



- **How does livestock production play into evolving risks to the food system – perhaps in particular food security agendas relating to changes in geopolitics, which have emerged since the Consultation.**

Much of the discussion during the Consultation was framed and influenced by the context of risks and challenges linked to Brexit, post-Brexit trade negotiations, and the COVID pandemic. But of course, the risk environment evolves. The most striking example of this, after the Consultation, is the outbreak of war between Russia and Ukraine in early 2022. Along with a multiplicity of implications, the war sets in play a cascade of risks which are highly relevant to the livestock sector, and which the Organising Committee thinks would bear follow-on consideration. Obvious areas for consideration may include:

- a) How and where is the livestock sector exposed to price and availability shocks in the hydrocarbon, fertiliser, feed crop production process? How and where can UK Livestock address this?
- b) What is the contribution of the UK Livestock to wider food system resilience? Issues for consideration here include risk factors created by the sector – such as land take for feed, and potential over-reliance on imports. Issues for consideration also include important potential roles for livestock in bolstering resilience – such as the ability to generate food from the substantial areas of permanent pasture in the UK, and the potential to enable nutrient-building and soil health in lowland mixed farming contexts – reducing exposure in particular to geopolitical risk in N, K and hydrocarbon markets.



Participants

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Professor Patrick Brown	Founder and Chief Executive Officer Impossible Foods (& Stanford University School of Medicine (emeritus))
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Dr Richard Carden, CB	Member of SGH Food & Farming Steering Group
Mr Tom Curtis	Partner, 3Keel Member of SGH Food & Farming Steering Group
Mr Jim Elliott	Senior Policy Adviser Green Alliance
Mr Dan Fairweather	Director of Livestock, Aquaculture and Fisheries A J Gallagher
Mr David Gardner	Director and Trustee, Various companies Member of SGH Food & Farming Steering Group
Mr Mike Gooding	Director RCMG Oxford Ltd/Farmers First/RAFT Solutions
Mr Andrew Griffiths	Head of Value Chain Sustainability Nestle UK&I
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Professor Tim Lang	Professor Emeritus of Food Policy City, University of London
Mr Christopher Price	Chief Executive Officer Rare Breeds Survival Trust



Mr Adam Quinney	Farmer A C & S E Quinney
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