

Challenges and opportunities facing UK livestock production and animal science research



Executive Summary

The UK food and drink industry is the largest manufacturing sector in the UK, with an output almost equivalent to that of the motorcar and aerospace industries combined.

Livestock farming is the dominant agricultural enterprise in the UK, and is critical for food security as well as ensuring a vibrant rural economy.

The UK's decision to leave the European Union in June 2016 has presented several opportunities for the country's livestock sector, but it has also created several challenges too. To ensure the future sustainability of the industry, these issues need to be properly addressed.

The British Society of Animal Science, together with a group of innovative farmers, advisors, and leading animal scientists, has identified five key areas it believes must be targeted by government and policy makers post-Brexit to ensure the long-term sustainability of UK livestock production and research:

1. Additional government support must target applied research which encourages innovation, has rapid impact and adds value
2. Policies must improve competitiveness and be evidence based
3. UK Scientists must have access to European Research Funding
4. The UK livestock workforce must have appropriate skills and training
5. Support for livestock production and research must be continued to support UK food security, biodiversity, tourism and the rural economy

Introduction



The UK's decision to leave the European Union in June 2016 has presented several challenges and opportunities for the country's livestock industry.

Regardless of the UK's trading position with the EU, it is clear that a highly-efficient livestock industry, informed and led by the latest research and technological developments, is critical to ensuring food security and improving the country's trading balance.

Why is the UK food production industry important?

The UK food and drink industry is the largest manufacturing sector in the UK. With an annual turnover of £81.8bn¹, its output is almost equivalent to that of the motorcar and aerospace industries combined.

The sector currently employs 400,000 people across 7000 businesses, most of which are micro- to medium-sized, whilst an additional 476,000 people work in the agricultural sector on 214,000 holdings. An additional 100,000 employees are expected to be employed in food production by 2020.



Exports have doubled over the last decade with food, feeds and drinks earning £18bn in 2015².

How can innovation in UK livestock production be encouraged outside the EU?



BSAS believes that encouraging innovation provides a viable strategy to tackle the challenges the sector faces and a multi-faceted approach is required by government and policy makers. Without such an approach, it fears that rather than being an opportunity, Brexit could cause irreparable damage to UK animal science and animal production.

To help offer guidance to government and policy makers, BSAS - together with a group of innovative farmers, advisors, and leading UK animal scientists - has devised five key areas it believes must be targeted to ensure the long-term sustainability of UK livestock production and animal science research.

1. *Additional government support must target applied research which encourages innovation, has rapid impact and adds value*

A highly-efficient livestock industry that is informed and led by the latest research and technological developments is critical to ensure food security and improve the UK's trading balance.

The UK government has recently supported several UK Innovation Centres including the Centre of Innovation Excellence in Livestock (CIEL), Agri-EPI Centre, Agrimetrics and the Centre for Applied Crop Science (formerly CHAP).

These are excellent, industry-driven platforms aimed at coordinating UK research facilities, and focused on applied research to improve the efficiency and profitability of the livestock industries.

These centres have the potential to be competitive globally, and deliver outputs that can be used by producers to improve efficiency, and by government in policy decision-making. Outcomes can also provide additional income to the UK through consultancy and technology.

Sustaining funding of these types of projects, as well as additional funding for basic livestock research, is vital to support the drive to improve the technical and economic performance of the UK livestock industry.



2. *Policies must improve competitiveness and be evidence based*



Leaving the EU provides the UK with the unique opportunity to reduce bureaucracy and produce policies that focus on its own livestock industry without looking for continent-wide solutions across different cultures and societies.

Policies and regulations relating to livestock production must be evidence-based and informed by robust and thorough research, as well as supporting innovation by suppliers, producers and processors.

UK livestock companies must be given regulatory support to improve efficiency and identify innovative and quality products to help compete with lower-cost production systems.

Food production must continue to be safe for humans and the environment, and with the ability to provide higher animal welfare and health. The UK has a unique opportunity to deliver superior quality assured products that will be in demand by an ever-discerning global consumer.

3. *UK scientists must have access to European research funding*

The UK is one of the world's leading countries for research and has been exceptionally successful in collaborating with scientists across Europe, and in sourcing EU funds for livestock research to address common challenges that cut across borders.

UK Research activities are often successful because of the interactions between a range of international collaborators with complementary skills and expertise working together over long periods to address shared challenges.



It is through these relationships that researchers can address questions of international and global significance, and produce results which will benefit UK farmers, agri-food businesses, policy-makers and consumers.

To maintain its position, it is vital that the UK negotiates *associate status*³ in future EU funding programmes. This will require a continuing financial commitment, but will be offset by the benefits of being at the centre of new developments enabling a high return on R&D investment.



4. *The UK livestock workforce must have appropriate skills and training*

A quarter of workers currently employed by UK farmers and processors come from outside the UK. This includes skilled staff such as veterinarians, those employed caring for livestock, harvesting crops and in processing (including abattoirs).

Farmers whom BSAS have spoken to in its investigations have said that should the source of migrant labour be affected, the country's livestock industry will struggle both in the short to medium-term to replace them, and to attract and train sufficient, suitable UK staff.

The UK livestock industry therefore needs a system which allows the easy flow of staff until sufficient replacements can be sourced and trained, or improved technology provides alternatives.

Additional government support is required for training and education to meet the needs of the livestock industries at all levels. There is also likely to be a longer-term requirement for motivated, migrant staff to undertake roles in the livestock industries which are not attractive to UK citizens, which must be addressed.

Within livestock research, the UK must be able to attract the best scientists and students globally to maintain research excellence and sustain a valuable income stream which is essential to the viability of many universities, colleges and research institutes both financially and intellectually.

5. *Support for livestock production and research must be continued to support UK food security, biodiversity, tourism and the rural economy*

Livestock farming is the dominant agricultural enterprise in the UK. Livestock systems in the lowlands, uplands and hills require support to improve their ability to produce food in a manner which is efficient, price competitive, environmentally sustainable and animal welfare-friendly.

Livestock systems in the hills and upland areas operate under particularly challenging economic and environmental conditions, but also underpin many rural economies whilst producing large quantities of high-quality food products. For example, the UK is the EU's largest producer of sheep⁴.

The presence of sheep and cattle also shape the UK landscape and habitats to support important wildlife, and provide a recreational resource for the wider population. In addition to support, research into further improving the interaction between livestock and the environment is therefore critical.



³ *Associate status* is a level of partnership that allows non-EU participants to join EU projects where a fee is required from the .non-EU partner'.

⁴ DEFRA https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/557993/AUK-2015-05oct16.pdf