

Written evidence submitted by the Agricultural Biotechnology Council (abc) (FS0084)

Agricultural Biotechnology Council's response to EFRA Committee Food Security inquiry

The Agricultural Biotechnology Council (abc) is the umbrella group for the agricultural biotechnology industry in the UK, comprised of four member companies, Bayer, BASF, Corteva and Syngenta. abc works with industry and the research community to invest in a broad range of crop technologies, including gene editing and GMOs. Our submission focuses on the role that agricultural innovation has to play in bolstering the UK's food security.

1. What are the key factors affecting the resilience of food supply chains and causing disruption and rising food prices – including input costs, labour shortages and global events? What are the consequences for UK businesses and consumers?

To address the first of these questions, there are a number of factors that affect the resilience of food supply chains.

One of these is the extent to which the Government enables farmers and agricultural producers to have access to innovative technologies which can improve the efficiency of the production of crops and increase yields. In addition, clarity around the scope and direction of travel of the Government's key initiatives is also important for supply chain resilience, for example around legislative developments, and future regulatory frameworks that directly impact sector output, such as the Genetic Technology (Precision Breeding) Bill. This can also be seen with the FSA's approach to GM imports in the UK, the timeline for which has been slow, with evidence suggesting the FSA is 'gold plating' the precautionary approach taken by the EU which is not scientifically justified and imposes social and environmental costs. Working with the regulator to approve the imports in a timely fashion, would be another step the Government could take to support the resilience of our food supply chain. This should follow the approach used by the UK with COVID-19 vaccine development and approval, whereby the UK was able to make its own regulatory decisions and fast-track process in comparison with the EU.

Equally, we need to ensure that as a country, the UK is at least keeping pace – if not leading the way – with regards to international developments in the agri-tech space. The UK's food supply chain could be significantly strengthened if we were to fully embrace innovations like gene editing. Lack of access to innovation in agriculture and restricted research and development in this area caused by EU regulatory policy has threatened our food security and impacted the cost of food.

EU policy development in this area is driven by the precautionary principle which prioritises speculative risks from new technology over practical issues faced by society today. This has resulted in an expensive and slow regulatory process which restricts access to these technologies and prevents investment in R&D while motivating public distrust of innovation in agriculture through a relentless focus on speculative risks.

As a result, this has slowed the development and implementation of gene editing technologies, in the UK. The passing of the Genetic Technology (Precision Breeding) Bill, a bill which allows for the introduction of gene editing and signals the adoption of innovative approaches to farming practice, is essential if we are to allow this precedential regulatory framework to no longer limit the strength of these supply chains and negatively affect the price of UK consumers' food.

2. What is the outlook for UK food price inflation in the short and medium term? What policy interventions should the Government consider to manage these pressures?

To address rising food price inflation, we need to look at both the systems we already have in place as well as those we should implement to protect our food security.

We need to further unlock the potential of technology. It is critical that policymaking around the future of food is joined-up and looks at developments such as gene editing as an opportunity, given that it helps us to produce food more efficiently. In addition, a new regulatory framework for gene editing post-Brexit is needed in order to allow the UK's agriculture sector to harness innovation and flourish in an outward looking UK, trade more goods globally and support science, research and development.

Polling of people living in the UK, undertaken by YouGov on behalf of abc found that more than half of people supported making food production a more sustainable process using more innovative farming techniques and methodologies. For farmers to be able to make their fullest environmental and economic contribution, we must ensure proportionate regulation is in place to ensure that new technologies can be utilised. Doing so would also improve competitiveness of the sector globally and attract inward investment.

Since Brexit, the Government has made some initial progress towards shifting its regulatory approach in the UK. After consultation last year, in January 2022, DEFRA, announced that new legislation – the Precision Breeding Bill – would be put in-place to cut unnecessary red tape for gene editing, initially for R&D purposes.

The Precision Breeding Bill is a positive step, providing a pathway to the implementation of gene editing in plants. abc also welcomed the commitment in the Government's Food Strategy to reviewing the UK's rules and regulations to "ensure they are proportionate and based on the best available science, enabling quick and effective deployment of new technologies at the highest consumer standards". We want to see the UK take the opportunity to re-join the mainstream of global agricultural innovation post-Brexit, by reducing unnecessary barriers to research of gene editing techniques, and align the UK with the science-based regulatory approaches taken by other countries such as Canada and Australia.

Since Brexit, Great Britain is responsible for authorisations of certain regulated products which are imported, the process is managed by the Food Standards Agency. These authorisations are taking many months, an initial batch of products took 14 months, the second batch is expected to take approximately two years. These slow authorisations create a risk of cutting the UK off from global markets, a possible outcome which would be highly inflationary for livestock feed costs, with consequences for consumer product prices such as milk and eggs.

3. How are the rising cost of living and increasing food prices affecting access to healthy and nutritious food?

N/A

4. How will the proposals in the [Government's food strategy policy paper](#) affect:

1. The resilience of food supply chains?;

The focus in the Government's food strategy on improving the resilience of food supply chains and developing longer-term measures to build a more sustainable and resilient food chain are all welcomed by abc. It is important that agricultural innovation and technology is used to shore-up and

strengthen existing supply chains. It is right that the Government, as part of its food strategy policy paper, has put agricultural innovation at the heart of its approach to ensuring that the UK's supply chains are as resilient as possible. abc believes that the proposals must continue to be acted upon, for agricultural innovation to materially affect the resilience of those supply chains.

2. The agri-food and seafood sectors?;

As outlined above, the food strategy will ensure that agricultural innovation is prioritised as we move forward as a nation in securing our supply chains and lowering the price of food, whilst strengthening British agriculture more broadly. abc welcomes the embracing of innovation to ensure that food security is improved and the price of food controlled.

It is therefore clear that the strategy will significantly impact upon the agri-food sector, by ensuring that agricultural innovation is placed at the heart of our approach to agricultural production, whilst in turn ensuring that other key targets – sustainability, net zero, and a UK-focused regulatory framework – are pursued.

3. Access to healthy, nutritious food?

A key part of the food strategy was its push to ensuring that healthy food can be produced efficiently and domestically, for it to be affordable for the British consumer. Indeed, the strategy states that by following it, the UK will be pursuing long-term measures to support a food system that offers access to healthy and sustainable food for all.

In addition, the paper rightly advocates for gene editing to be further explored and packaged into our farming system, again, supporting access to healthy and nutritious food. Through funding and improving our regulatory frameworks post-Brexit, it stated that the Government will support progress on gene editing, adding that through the Genetic Technology (Precision Breeding) Bill, it will create a new simpler regulatory regime to allow researchers and breeders to unlock the benefits of technologies such as gene editing. As outlined above, the introduction of gene editing into our farming system has the potential to improve access to healthy and nutritious food for British consumers.

5. Is the current level and target of food self-sufficiency in England still appropriate?

The UK's actual levels of self-sufficiency in the production of food is about [54% in fresh vegetables, and 16% in fruit.](#)

There has not yet been a target declared for national food security. The declaring of such a target, in addition to a target for food self-sufficiency and an improvement in the UK's food security, are important shifts that need to happen if we are to successfully meet the demands of the UK's growing population. A report commissioned by abc, produced by Estel Consult – ['Fostering innovation in agriculture through enabling regulatory policy'](#) – stated that farmers would have to produce 70% more food by 2050 if we are weather and meet the needs of the world's growing population.

Given that the UK remains susceptible to shifts of this nature, it remains important that we continually look to improve the self-sufficiency of our food production.

We support the Government's working towards and improvement upon these targets by implementing innovative agricultural policies. For example, steps like the introduction of the Genetic Technology (Precision Breeding) Bill are positive and may, in the future, allow us to use existing farmland more efficiently and make crops more resilient and resistant to pests and other threats, therefore ensuring that we realise these self-sufficiency targets. Moreover, any such developments

are welcomed by the public. [Polling](#) undertaken by YouGov on behalf of abc found that 81% of Britons agree that farmers should be able to benefit from innovations like gene editing that could help them play their full role in meeting the UK's climate change ambition of reaching 'net zero' by 2050.

The same report cited above – [‘Fostering innovation in agriculture through enabling regulatory policy’](#) – has outlined the fact that plant breeding techniques have resulted in the doubling of yields for produce such as rice, the production of more food per acre in the UK, and can contribute to the globally noticed slowly of productivity increases. It is therefore crucial that we look to introduce gene editing and plant breeding techniques, if we are to meet our targets in this space – and make the most of our post-Brexit opportunity, of going beyond them.

6. How could the Government's [proposed land use strategy](#) for England improve food security? What balance should be struck between land use for food production and other goals – such as environmental benefit?

It is promising that the Food Farming and Countryside Commission (FCCC) states the importance of the Government integrating innovation into the proposed land use strategy. To ensure that we can increase the supply of food and lower the price of it, we need to ensure that agricultural innovation is embraced, fully, within the proposed land use strategy. The fact that the proposed land use strategy suggests that in any given use of land we must consider whether it would be able to allow for the use of potential new technologies for farming and whether it would be able to support both agricultural innovation whilst furthering core agroecological principles can improve the UK's food security.

As we have already outlined, a report produced by [Estel Consult – ‘Fostering innovation in agriculture through enabling regulatory policy’](#) has demonstrated that the uptake of genetic editing and plant breeding techniques has increased the amount of food produced per acre, showing us that farming can be made more efficient and land can be used more efficiently, under this new strategy, if promoted by Government. This has also been supported by [Bookes and Barfoot](#) (2017), following their research into plant breeding and land use.

Equally, the use of land in this way ties-in, indeed complements, the Government's and the strategy's environmental targets, meaning that there need not be dichotomy, nor a choice to be made, between pursuing the two. Further research undertaken by [Brookes and Barfoot](#) (2018) has shown us that agricultural technology can play a key contributing role to the achievement of the stated environmental objectives, with crops having been produced by these means that have brought benefit to the environments in which they are grown. Indeed, researchers from Cambridge University recently [found](#) that high-yielding farming delivered better outcomes for biodiversity and climate change through land sparing.

There are a number of ways in which the proper utilisation of these techniques can allow for us to bring about environmental benefit – using high-yielding crops means less land is required for food production, drought-tolerant crops reduces our need for water in their growing, and such crops can even reduce the need for fuel-intensive tillage, whilst keeping carbon in the soil. PG Economics estimates that the adoption of herbicide tolerant technology in soybeans in South America from 1996 – 2016 has the equivalent effect of taking 18 million cars off the road for a whole year.

It is important that the Government's land use strategy focuses on innovation and that this strategy is followed. The use of innovative techniques will ensure that our consumer needs and environmental targets can both be met.