



CONSULTATION ON THE REGULATION OF GENETIC TECHNOLOGIES

Defra Consultation

Date: 17th March 2021

The CLA is the membership organisation for owners of land, property and businesses in rural England and Wales. We help safeguard the interests of landowners, and those with an economic, social and environmental interest in rural land. Our members own or manage around half the rural land in England and Wales and more than 250 different types of businesses.

Consultation background

The regulation of Genetically Modified Organisms (GMOs) in the UK is covered by retained EU legislation, and supplemented by domestic legislation including Part VI of the Environmental Protection Act 1990. The Defra consultation on regulation of genetic technologies focuses on whether the retained EU regulation should be changed to permit new gene editing (GE) technologies, in situations where the genetic alterations could have been achieved through traditional breeding methods. This is in line with legislation in many other countries including Argentina, Australia, Brazil and Japan, where GE organisms are not regulated as GMOs if they could be produced by traditional breeding. In the consultation the government indicate that they are inclined to relax existing regulation within the next 1-2 years, to allow the use of gene editing technologies.

The main arguments underpinning the government's proposals are as follows:

- a. Gene editing technology has made significant advances in recent years and the existing underlying EU legislation, that forms the basis of current UK legislation, was written more than 30 years ago.
- b. Gene editing could fine tune and speed up the natural breeding process targeted towards productivity and environmental gains. Defra says it is following the science, "which says that the safety of an organism is dependent on its characteristics and use rather than on how it was produced."
- c. Gene editing could help the government reach climate and biodiversity goals.
- d. Gene editing could help in the development of pest and disease resistant crops and livestock.

The consultation is split into two sections, with one focusing on the regulation of GMOs produced by gene editing or other genetic technologies but which could have been developed using traditional breeding methods. The other section contains questions on the broad reform of legislation governing organisms produced using genetic technologies.

The consultation proposals apply to England only and the consultation closes on 17th March.

Overview

The CLA has responded to the consultation from the perspective of farmers and landowners involved in the production and trading of crops, livestock and timber. There is potential for gene editing techniques to be used to tackle issues such as climate change, biodiversity loss, and resilience of crop and livestock production in the UK and around the globe. There are opportunities for the forestry sector through breeding more resilient species, which could have benefits for biodiversity, carbon sequestration and energy production (biomass), and potentially control of pests such as grey squirrels.

The CLA supports the adoption of gene editing technology, as defined within the consultation, with a change in the statutory definition of a GMO as it applies in England in section 6 of the Environment Protection Act (EPA) 1990. This support is based on the understanding that the consultation proposals seek to deploy gene editing in its simplest form and only where the changes could have occurred using traditional breeding techniques. This is not an endorsement of a move to permit all forms of gene editing technology, which would be an entirely different proposal.

Whilst there was overall support for the adoption of gene editing technology, the Government needs to share information and/or adapt the policy framework to address a number of concerns:

- Many CLA members felt that they did not have sufficient information about gene editing techniques and the potential risks to make a confident decision, but tended to support the change in legislation.
- There were concerns regarding ownership of gene editing intellectual property and risks of market monopolies. Assurances are required that existing legislation will continue to act to ensure that market monopolies do not develop and that producers are not limited in their choice of supplier.
- How gene edited crops will be treated under current plant breeding legislation was not fully understood, so while support was given, for some it was on the condition that there should be a procedure to properly identify and evaluate potential negative impacts.
- The support was stronger for gene editing in crops than in livestock, with concerns about livestock mainly related to public opinion and market acceptability. This difference in sectoral attitude was reflected in the contrasting levels of support across the parts of England characterised by different farming types. There was strong support from the woodland sector for use in controlling serious invasive and damaging pests and diseases such as grey squirrels and ash dieback.
- The technical terminology needs to be very clear with terms such as “gene editing”, “genetic engineering” and “genetic modification” frequently used interchangeably within the consultation document, which caused confusion.
- There was concern regarding the implications that adopting this technology would have on domestic and international trading agreements (see question 3, section 2).

Consultation questions

Section 1

1. Would you like your response to remain confidential?

No

2. Name: Cameron Hughes
3. Email: Cameron.hughes@cla.org.uk
4. Non-governmental organisation
5. Left blank
6. The Country Land and Business Association
7. Interested in:
 - a. Cultivation of crop plants
 - b. Breeding farmed animals
 - c. Human Food
 - d. Animal Feed
8. The CLA represents members in England and Wales

Section 2

1. Currently, organisms developed using genetic technologies such as GE are regulated as genetically modified organisms (GMOs) even if their genetic change(s) could have been produced through traditional breeding. Do you agree with this? Yes – they should continue to be regulated as a GMO / No – they should not continue to be regulated as a GMO

Please explain your answer, providing specific evidence where appropriate. This may include suggestions for an alternative regulatory approach.

No.

The CLA is of the view that organisms developed by gene editing technologies to create changes that could have been produced through traditional breeding techniques should not be regulated as GMO. Existing GMO legislation was not designed to encompass simple, non-transgenic organisms, such as those which have been produced by gene editing.

Not regulating GE organisms in the same way as GMO would bring the UK into line with the approach taken by other countries, such as Argentina, Brazil, Japan and Australia. Even member states within the EU, such as France, no longer wish GE to be regulated in the same way as GMO.

2. Do organisms produced by GE or other genetic technologies pose a similar, lesser or greater risk of harm to human health or the environment compared with their traditionally bred counterparts as a result of how they were produced? [Similar] [Lesser] [Greater]

Please provide evidence to support your response including details of the genetic technology, the specific risks and why they do or do not differ. Please also state which applications/areas your answer relates to (for example: does it apply to the cultivation of crop plants, breeding of farmed animals, human food, animal feed, human and veterinary medicines, other applications/ areas).

This should be led and determined by scientific experts in consultation with practitioners.

- 3. Are there any non-safety issues to consider (e.g. impacts on trade, consumer choice, intellectual property, regulatory, animal welfare or others), if organisms produced by GE or other genetic technologies, which could have been produced naturally or through traditional breeding methods, were not regulated as GMOs? [Yes/No]**

Please provide evidence to support your response and expand on what these non-safety issues are.

Yes.

Consumer perception

There is a concern that consumers will not fully appreciate the technical differences between how GE and GMO foods have been developed. A lack of understanding could result in negative attitudes to both GE research and the crops and livestock that result from it, potentially damaging the value of the change in legislation for both farming and the environment. Reputational damage could be suffered by the farming industry, whether or not gene edited crops and livestock are produced. Defra must take a lead in building understanding and acceptance of GE within society, starting by considering how to isolate the kind of gene editing that is proposed in the consultation, from the wider range of gene editing and genetic modification techniques.

Trade

There are concerns that the production of GE crops and livestock, and associated food products in England might damage trade relations within the UK, the EU and other nations with restrictive policies on GE and GMOs. The UK Internal Market agreement has non-discrimination as a key operating principle. Should GE be permitted in England, the government will have to guarantee that English producers will not be discriminated against when trading with the devolved administrations.

'Contamination' risk/ coexistence

There is concern that the integrity of food produced to specific standards, such as organic food, could be compromised by allowing GE crops. However, while this is understood to be no greater than under conventional breeding, support needs to be given to ensure that traceability standards are maintained and trusted.

4. **What criteria should be used to determine whether an organism produced by gene editing or another genetic technology, could have been produced by traditional breeding or not? Please provide evidence to support your response [open response]**

This should be led and determined by scientific experts in consultation with practitioners.

Section 3

1. **There are a number of existing, non-GM regulations that control the use of organisms and/or products derived from them. The GMO legislation applies additional controls when the organism or product has been developed using particular technologies. Do you think existing, non-GM legislation is sufficient to deal with all organisms irrespective of the way that they were produced or is additional legislation needed?**

Please indicate in the table whether, yes, the existing non-GMO legislation is sufficient, or no, existing non-GMO legislation is insufficient and additional governance measures (regulatory or non-regulatory) are needed.

Please provide evidence to support your response

Sector / activity	Yes (sufficient governance)	No (insufficient governance)
a) cultivation of crop plants		
b) breeding farmed animals		
c) human food		
d) animal feed		
e) human and veterinary medicines		
f) other sectors/activities		

For the purposes of transparency and to improve understanding, Defra should commission and publish a full review of this legislation with regards to GE with wide consultation.

2. **Where you have answered no (existing, non-GMO legislation is insufficient to deal with organisms produced by genetic technologies), please describe what additional regulatory or non-regulatory measures you think are required to address this insufficiency, including any changes you think need to be made to existing non-GMO legislation.**

Please explain how any additional measures you identify should be triggered (for example: novelty, risk, other factors). Please provide evidence to support your response [open response]

The CLA is not an expert in this area of legislation. However, producers need to have the ability to make a fully informed choice when selecting breeds and species. Therefore there must be a mechanism for making it clear whether or not GE has been used in the development of an organism at the point of purchase for production.

The CLA understands that the British Society of Plant Breeders have agreed that there will be transparency over whether GE has been used in the development of an organism by using seed labelling.

There is a requirement for a robust framework to determine what could have been achieved through natural breeding and to identify changes that constitute significant or novel change. If GE techniques create novel traits, there needs to be a process to identify and evaluate the need for additional regulation. GE organisms should be subject to ongoing surveillance to monitor any unforeseen environmental impacts.

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