Parliamentarians for Agroecology

Parliamentary Briefing: Agroecology and Precision Breeding
May 2026

On May 12 & 13 2026, the High Court will hear the judicial review challenging the Genetic Technology (Precision Breeding) Regulations 2025, which introduce a new regulatory framework for the management of 'precision bred organisms' (PBOs), a subcategory of GMOs, and came into effect on 13 November 2025.

The claim is brought by the environmental advocacy group, Beyond GM, alongside organic farmers and consumers. It argues that the new regulations allow some genetically engineered plants to enter the food system and environment without mandatory traceability, safety assessment, or labelling. This undermines the rights of farmers, food businesses and consumers by leaving organic and non-GMO operators without adequate tools to maintain GMO-free supply chains.

Key asks

Parliamentarians for Agroecology (P4A) would encourage you to:

- **Write a private letter to Secretary of State Angela Eagle** to raise concerns about traceability, labelling and regulatory gaps in the Precision Breeding Regulations while requesting publication of the evidence base, questioning Defra's reliance on non-statutory guidance, and supporting a regulatory approach that ensures transparency, coexistence and choice.

What are Precision Bred Organisms (PBOs)?

Precision Bred Organisms (PBOs) are plants developed using newer genetic techniques such as gene editing, including methods like CRISPR-Cas9. These techniques range from switching off a single gene to making multiple edits in a single organism and the deliberate insertion of genetic material from another species. While PBOs are defined in the legislation as the products of modern biotechnology, the Genetic Technology Act and its Regulations exempt them from the regulatory requirements of other types of GMOs on the basis that they could occur through conventional breeding.

This claim, however, is theoretical and contested, particularly because these organisms are produced using direct genetic intervention and modern biotechnology. It is also inconsistent with UK and international organic law, as well as international non-GMO certification standards, which prohibit all GMOs, including PBOs. Apart from being a technique of genetic engineering, gene editing operates with a speed and precision that has no real equivalent in traditional breeding, raising concerns about unintended effects, ecological risks, and whether current regulatory systems are sufficient. Questions also remain around transparency, traceability, and appropriate oversight. Wider concerns include corporate control, intellectual property, and the potential sidelining of agroecological approaches.

What is the issue with the Precision Breeding Regulations 2025?

By exempting PBOs from the regulatory requirements of other types of GMOs, the 2025 regulations establish a separate framework for PBOs that removes requirements for safety testing, traceability, and labelling, and significantly reduces environmental oversight.. Much

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of the detail is left to non-binding, non-statutory guidance, limiting ongoing Parliamentary scrutiny. This effectively deregulates PBOs making them virtually untraceable in supply chains, creating challenges for organic producers and food businesses that are legally required to maintain non-GMO standards. There are also concerns about international trade, as the European Union continues to regulate PBOs as GMOs, as well as potential internal trade conflicts, given that both Scotland and Wales have explicitly rejected the new legislation while Northern Ireland follows EU rules. Critics further argue that the approach downplays potential risks, including ecological impacts and unintended genetic changes, and limits consumers' ability to make informed choices about whether to grow or eat genetically modified products.

The legal challenge

Leigh Day, on behalf of Beyond GM, is bringing a challenge against the PBO regulations. Their judicial review claim is being brought on the following grounds:

- Breach of Article 8 of the Human Rights Act, due to a failure to provide the public with adequate information or consultation
- Incompatibility with the rights of organic farmers, whose social and professional identity and livelihoods are placed at risk by potential GMO contamination.
- Lack of proper inquiry into known problems relating to traceability, coexistence, organic supply chains, and trade and failure by the Environment Secretary to conduct a full impact assessment, despite acknowledged risks to trade and the food system.
- The Environment Secretary weakened environmental oversight by removing key GMO-related protections from precision bred organisms, including under the Environmental Damage Regulations, and failed to properly assess their potential impact on protected sites under the Habitats Regulations.
- The 2025 regulations carry a significant impact in a way that is not consistent with the purpose of the Genetic Technology (Precision Breeding) Act 2023, which they alter.

An agroecological alternative

An agroecological alternative to Precision Bred Organisms (PBOs) focuses on working with ecological processes, farmer knowledge, and biodiversity rather than targeted genetic interventions. Rooted in Agroecology, it emphasises whole-system resilience through healthy soils, diverse crops, and strong local food networks. Instead of gene editing, it prioritises participatory plant breeding, where farmers and researchers develop locally adapted varieties over time. This supports traits like resilience and nutrition while maintaining genetic diversity. Agroecological systems also reduce external inputs through practices such as crop rotation, intercropping, and agroforestry, improving soil health and natural pest control without introducing novel genetic risks. Crucially, it centres farmer autonomy and seed sovereignty, avoiding dependence on patented technologies. Innovation is seen as collaborative and place-based, offering a more equitable and sustainable approach to food system resilience.

Written in partnership with Beyond GM (pat@beyond-gm.org)

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