

Green Light for New Gene Editing Techniques: Threats and Corporate Interests Behind New Wave of GMOs

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by [Navdanya International](#)

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For the last few years, agribusiness and biotech giants have been quietly making changes to GMO regulation around the world, deepening and entrenching their monopolistic grip on the global food system.

Today the effects of this lobbying also reached Europe.

On July 5, 2023, the European Commission released [a proposal](#) to exclude a large part of the new GMOs, or organisms genetically modified through new genetic editing techniques, from existing GMO regulations that require traceability, labeling, and risk assessment for genetic engineering products. The new regulation considers plant products deriving from genetic editing, of “category 1”, or equivalent to those that “could have been achieved with classic techniques like seed selection and crossbreeding”.

Through this proposal, the products obtained with genetic editing can contain up to 20 different genetic modifications and would be considered “equivalent” to all conventional plants and products, without the need to explicitly declare their nature as genetically modified.

The European Union represents the last bastion against the imposition of these new technologies. Therefore, it is essential for environmental, ecological, and human health and safety to require that these new genetically modified organisms be labeled, and subjected to independent evaluations. Also meaning that their process of production, sale, and distribution be carefully regulated.

Second generation GMOs

Over the last five years, new gene-edited technologies, denominated under an alphabet of new acronyms, from NBTs (New Breeding Techniques), NGTs (New Genomic Techniques), and TEAs (Techniques of Assisted Evolution), have been silently dovetailing into different countries' existing agricultural legislation to by-pass any existing regulations and safety checks set in place for GMOs.

The logic used around the world to justify the deregulation of what is nothing but a new generation of GMOs is based on statements coming from the influential biotechnology sector. According to them, these products obtained through genetic editing (including seeds, plants, microorganisms, and animals), are to be considered harmless as gene editing would allow them to mimic nature's natural mechanisms of genetic evolution and reproduction, now only faster. According to the large agrotech companies operating in the sector, since these techniques do not involve the insertion of foreign DNA through transgenesis, they cannot be considered equivalent to the first generation of GMOs and can therefore be regulated like conventional crops, microorganisms, and animals.

A question of biosafety

As demonstrated by numerous independent studies, however, gene editing is not as accurate, safe, or sustainable as the industry claims. The process, considered as a whole, induces hundreds [of unwanted mutations](#) throughout the plant genome. This may affect multiple gene functions with unknown

consequences to cell protein biochemistry and metabolic activity.

We have already seen how the promises of food security, sustainability, and adaptation to climate change which in the past justified the use of highly toxic chemicals, GMOs, and the unlimited expansion of monocultures, have been severely disregarded.

Considering the devastating consequences already caused by the industrial food system in terms of environmental pollution, loss of biodiversity, climate destabilization, and the destruction of small rural economies, there is little reason to believe that the scenario will be different for new genetic editing techniques. Especially when the actors behind this push are the same ones who have fuelled an agricultural model of exploitation and ecological disaster for decades.

The exclusion of gene edited products from regulation, traceability, and labeling and the lack of independent research on their actual safety for human health and the environment, would leave consumers and farmers unaware of the type of GMOs released into nature, the risks associated with their spread and the ecological and/or health damage they can cause. Directly violating the precautionary principle to protect the rights of citizens, farmers, and of the environment.

Food sovereignty under attack by multinationals

This lack of transparency appears to serve to absolve manufacturers of any responsibility and represents a further attack on food sovereignty. Also understood as the fundamental right of people to healthy and safe food, produced by ecological methods and adequate information on the origin and production methods of food.

The lack of in-depth research on the safety, as well as the long-lasting effects of gene edited products on the

environment, undermine this fundamental right and encourages the centralization of food systems to the detriment of local food systems.

A closer analysis is sufficient to bring out all the interests at stake in this very dangerous game. Indeed, the deregulation of gene editing around the world has opened the door to the advent of a new "bioeconomy," which is a new method of economic production based on manipulating the genetic information of microbes, plants, and animals to "program biology" to make it more economically productive.

What is really at stake is a further process of corporate appropriation and control not only of our food system but of all living systems. In this new "bioeconomy," the goal of biotech and agrotech companies is to make gene editing and biological engineering the main tool for producing and processing all natural material, reducing agribusiness production to an artificial system of exclusive patents and licensing.

"Organic" and "No GMO" labeling are thus likely to disappear in favor of more generic labels such as "healthy" or "sustainable," regardless of the process used to create the product.

The deregulation of gene editing biotechnology is opening up huge new profit potential for the major players in global agriculture. Regardless of the regulatory definition that equates these products with conventional ones, companies continue to file hundreds of patents using these new technologies to further strengthen their control over food systems.

The advent of these new technologies is enabling companies to patent specific genomic sequences by circumventing the foundations of current biosafety regulations established by the Convention on Biological Diversity and the Nagoya

Protocol.

The real solutions to the climate and food crises

The agribusiness industry's attempt to reduce the complexity, diversity, and richness of life forms to a mere matter of genetics, treating food and crops as mechanical products, only further endangers the world's biodiversity, ecological systems, and people's health.

The desire to control everything living, and the very constitution of living things, is an attack on diversity and life. Diversity is the basis of life on the planet and is the only antidote we have to create ecological, health, and climate resilience.

After centuries of dominance of a mechanistic, reductionist, and linear worldview, we should see that the solution to the multiple crises of the present cannot come from further manipulation or control of nature.

New gene editing technologies continue to shift attention away from the real alternatives that can drive ecological regeneration. The solutions lie in the creation of ecologically integrated systems based on biodiversity, care, and science that understands and respects the interconnections between life and nature.

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