

**BIODYNAMIC
FEDERATION** 



LEAFLET
**THE FUTURE OF
FARMING IS GMO-FREE!**

OUR KEY POLICY DEMANDS

- Governments must either strictly regulate or ban all GMOs, including new GMOs. No weakening of existing regulations on GMOs.
- Mandatory labelling of all products containing any GM ingredient to know what is in our fields and on our plates.
- Support for sustainable and alternative farming systems to GMOs such as biodynamic and organic farming.
- Fund research to develop detection methods for new GMOs. No new GMO should come on the market undetected.
- No patents should be granted on any form of life or its components that restricts the free access to genetic resources for everyone.
- Independent research to investigate the effects of new GMOs on our health and the environment.

What are new GMOs?

Since the first introduction of genetically modified organisms (GMOs) in the 1990s, a new generation of GMOs came to light over the last twenty years. These new GMOs - also called new genomic techniques or new breeding techniques - include a wide variety of genetic modification technologies, the best-known being CRISPR or CRISPR-Cas. However, their aim is the same: to modify the genome of an organism by either introducing genetic material or enacting a change to the genetic material in the cell.

Unlike the older generation of GMOs, new GMOs do not necessarily introduce foreign genetic material, they can modify the genome by cutting, editing, or silencing strands of DNA from the same organism. Such techniques increase the range of possibilities and speed with which the genetic material of organisms may be modified.

Risks and threats of new GMOs

New GMOs are often presented as safer and more precise than the old generation of GMOs. However, the risks and threats remain the same. Gene-editing techniques can cause off-target mutations and unintended on-target mutations, meaning mutations of the genome at other locations than the ones intended. These mutations come with unpredictable consequences for our health and the environment. They are different from genetic changes that occur in nature or with conventional breeding techniques. With gene editing, parts of the genome become accessible that are otherwise protected from mutations.

False promises of new GMOs

The contribution of new GMOs to sustainability is pure speculation. The potential benefits of these new techniques have not been demonstrated and are not evidence-based. The majority of the promised plant products are still in the research and development stage and may never come to the market. It seems that their potential contribution to sustainability only relies on the promises of GMO developers and interest groups.

GMO-free agriculture

Biodynamic farming has always prohibited the use of GMOs. The same goes for new GMOs as these techniques are not compatible with the principles of biodynamic farming. In this aspect, the biodynamic movement is in line with the organic movement, and it defends its choice to remain free from any use of GMOs.

The future of agriculture can't rely on the empty promises of new GMOs only promoted by the big agrochemical industries. A real paradigm shift is needed to answer the challenges agriculture is facing today. Both organic and biodynamic farming show that a future-proof agriculture is possible. They need to be further supported and extended to farming practices in general.

Keep GMOs regulated

Biodynamic farming is at risk with the development of new GMOs worldwide. Only a strict regulation of new GMOs can ensure the production of GM-free food. Risk assessment and mandatory labelling are crucial to guarantee the safety of all these new techniques and limit the contamination risks.

With each new GM authorization, the risk of contamination grows, which puts a greater burden on those in biodynamic and organic agriculture who need to avoid such contamination and jeopardizing the production of GM-free products. Strict regulation of new GMOs is the only way to preserve biodynamic farming and to reduce the risks to our health and the environment.

For further enquiries, please contact Clara Behr, Head of Policy and Public Relations:

clara.behr@demeter.net

Brussels, 25.01.2022

ABOUT US

The Biodynamic Federation Demeter International is a non-profit umbrella organisation and its member organisations work together as an international confederation relying on democratic principles. It is the only ecological association that has built up a network of individual certification for biodynamic farming organisations worldwide, the Demeter brand. Presently, the Federation has 45 member associations in 36 countries around the world. Thus, the Federation represents more than 5.400 Demeter certified farms with over 170.000 hectares in 65 countries. More info at: www.demeter.net

Literature & References

Kawall K. et al (August 2020). **Broadening the GMO risk assessment in the EU for genome editing technologies in agriculture**. Environmental Sciences Europe 32.

Eckerstorfer MF. et al (June 2021). **Biosafety of genome editing applications in plant breeding: Considerations for a focused case-specific risk assessment in the EU**. BioTech 2021 (10).

Engelhardt M. et al (October 2021). **New developments and regulatory issues in plant genetic engineering**. Federal agency for nature conservation (BfN).

Biodynamic Federation Demeter International (December 2020), International Biodynamic Demeter Standard, https://www.demeter.net/wp-content/uploads/2021/04/20201204_bfdi_standard_for2021_final_sc.pdf.

IFOAM Organics International (November 2016), Position paper. Genetic Engineering and Genetically Modified Organisms, https://www.ifoam.bio/sites/default/files/2020-03/position_genetic_engineering_and_gmos.pdf.