Agroecology Europe Position
for the public consultation on plants produced by certain new genomic techniques

Brussels, Friday 22 July 2022

Agroecology Europe, the European Association promoting agroecology as a set of practices, a science and a movement across Europe, welcomes the opportunity to give feedback on the Commission's revision on impact assessment for a legislation for plants produced by certain New Genomic Techniques.

The current GMO EU regulation insures, harmonised procedures for risk assessment and clear labelling and traceability and transparency for producers and farmers which protects human and animal health and the environment. We invite the Commission to ensure that the regulation is properly applied to all GMOs, including those developed with "new genomic techniques" such as clustered regularly interspaced short palindromic repeats (CRISPR) technologies.

Respect the precautionary principle and the freedom of choice of European producers and consumers

The precautionary principle must prevail and the freedom to make free and informed choices about consumption and agricultural production must be maintained. The revision of this legislation for plants produced by certain New Genomic Techniques poses a risk to those two utmost important principles for human and animal health as well as for ecosystem balance. The deliberate release of plants produced by targeted mutagenesis and cisgenesis needs to be assessed case by case and step by step, in order to avoid risks of adverse effects to human health and the environment. New and emerging gene-editing techniques lack a long-history of safe-use in any organism[1] and are subject to a number of off-target genetic modifications with unknown effects[2] [3].

Therefore, *Agroecology Europe* calls for maintaining high standards of risk assessment for all GMOs.

The development of GMOs, anchored in an industrial and fossil-fuel dependent development paradigm, is strongly incompatible with sustainable transition pathways for agricultural and food systems from environmental, social and economic perspectives. With a view to fulfilling the

[1] Agapito-Tenfen, S. Z., Okoli, A. S., Bernstein, M. J., Wikmark, O. G., & Myhr, A. I. (2018). Revisiting Risk Governance of GM Plants: The Need to Consider New and Emerging Gene-Editing Techniques. *Frontiers in plant science*, *9*, 1874. https://doi.org/10.3389/fpls.2018.01874

[2] Ledford, Heidi. "CRISPR gene editing in human embryos wreaks chromosomal mayhem." *Nature* 583.7814 (2020): 17-18.

[3] Ledford, Heidi. "CRISPR gene editing produces unwanted DNA deletions." *Nature* 16 (2018).

objectives and with the F2F and Biodiversity strategies, we invite the Commission to consider the systemic approaches provided by the scientific community, farmers, and environmental organisations to transform the EU farming and food systems and strengthen their resilience. A growing body of scientific evidence argues for the development of agroecology in order to meet the objectives of food security and sovereignty[4], protection of natural resources[5] and maintenance of farmers' income[6].

New (and old) genomic techniques: a strong incompatibility with the EU F2F and Biodiversity strategies and a threat for farmer's autonomy

Patented GMO seeds represent a serious threat to the resilience and sustainability of farming and food systems. Mutagenesis, genetic contamination of local and heritage cultivars, contamination incidents[7] and interactions with other organisms make the coexistence with other production systems, such as organic farming, impossible. In that sense the Organic Action Plan of the EU setting a target of at least 25% of the EU's agricultural land under organic farming by 2030 will be made impossible if a deliberate release of GMOs takes place on the market.

Beyond the technical issues, the structural dependence of farmers on the agro-biotech industry in the case of the development of patented GMOs in agriculture raises ethical concerns. The high concentration of power in the few hands of the agro-biotech industry is a direct threat to the resilience of the European food system. Agroecology Europe calls for European policies that support farmers' technical autonomy and that support the development of technologies that improve economic and environmental resilience and value farmers' knowledge, food sovereignty and cultural diversity.

Today's agrobiodiversity offers a wide range of evolutionary adaptations to all kinds of environmental situations (resistance to extreme weather conditions, diseases, pathogens (parasites, fungi) and high nutritional quality. EU policies should be designed to support and enhance agrobiodiversity at soil, field, farm, landscape and territorial level, emphasising the importance of conservation and sustainable use of local resources, and introducing highly diversified diets that can improve human and animal health.

Agroecology Europe encourages the European Commission to support agroecological practices that offer a more sustainable way of producing healthy food, that are efficient because they are better adapted to local systems, more diversified, able to cope with the continuous evolution of pests and

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[4] Kerr, Rachel & Madsen, Sidney & Stüber, Moritz & Liebert, Jeffrey & Enloe, Stephanie & Borghino, Noélie & Parros, Phoebe & Mutyambai, Daniel & Prudhon, Marie & Wezel, A.. (2021). Can agroecology improve food security and nutrition? A review. Global Food Security

[5] Alexander Wezel, Marion Casagrande, Florian Celette, Jean-François Vian, Aurélie Ferrer, et al.. Agroecological practices for sustainable agriculture. A review. Agronomy for Sustainable Development, Springer Verlag/EDP Sciences/INRA, 2014, 34 (1), pp.1-20.

[6] van der Ploeg J.D, Barjolle D., Bruil J., Brunori G., Costa Madureira L.M., Dessein J., Drąg Z., Fink-Kessler A., Gasselin P., Gonzalez de Molina M., Gorlach K., Jürgens K., Kinsella J., Kirwan J., Knickel K., Lucas V., Marsden T., Maye D., Migliorini P., Milone P., Noe E., Nowak P., Parrott N., Peeters A., Rossi A., Schermer M., Ventura F., Visser M., Wezel A. (2019) The economic potential of agroecology: Empirical evidence from Europe. Journal of Rural Studies 71: 46-61.

[7] Price, B., Cotter, J. The GM Contamination Register: a review of recorded contamination incidents associated with genetically modified organisms (GMOs), 1997–2013. *FoodContamination* **1,** 5 (2014). https://doi.org/10.1186/s40550-014-0005-8)

diseases without relying on chemical control and technological "silver bullets", and more resilient to climate change and adverse economic circumstances.

Agroecology Europe is at the disposal for any request from the Commission and would be pleased to offer the expertise in this legislative process.

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For further information, please contact our Secretariat:

Elena Ambühl
elena.ambuhl@agroecology-europe.org