Wissenschaftskreis Genomik und Gentechnik e.V.

VBiO
Verband | Biologie, Biowissenschaften & Biomedizin in Deutschland

Frankfurt am Main/Berlin, 09. November 2023

Open letter

to the Federal Minister of Food and Agriculture, Cem Özdemir
the Federal Minister for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection, Steffi Lemke
and the Federal Minister of Education and Research, Bettina Stark-Watzinger

Innovative technologies as a contribution to greater sustainability:
For an evidence-based reform of the European GMO legislation

Dear Ms. Lemke,
Dear Ms. Stark-Watzinger,
Dear Mr. Özdemir,

Any legislation should keep pace with the progress of science and technology so that innovation can benefit both humanity and the entire ecosystem. This is all the truer when global challenges, such as population growth and rapidly advancing climate change, require urgent and effective action. In these times business as usual is no longer an option. Instead, we must explore all options available in a non-judgmental way and use the most effective ones for each circumstance – and we must execute as quickly as possible, because time has been an underestimated adversary for far too long.

The EU Commission has recognized the need for action and has launched measures in various policy areas to promote sustainable and efficient approaches. Take land use, for example: the ambitious goals of the European Green Deal with the Farm to Fork Strategy call for a 50% reduction in the use and risk of pesticides, a 50% reduction in nutrient losses and a 25% reduction in fertilizer use by 2030. As scientists, we are convinced that these ambitious goals will barely be achieved by the decision to expand the organically grown area to 25% of total farm land. On conventionally grown land in particular, in addition to adapted forms of cultivation, new plants adapted to stress tolerance, efficient use of nutrients, etc. are urgently needed. However, it will not be possible to make these available in a reasonably

short timeframe without the use of modern breeding techniques. However, the current EU GMO legislation, which dates back to 2001, creates almost insurmountable obstacles to their sensible use.

New genomic techniques: The EU Commission's proposal

Against this background, this past summer the EU Commission presented its "Proposal for an evidence-based regulation of plants bred using new genomic techniques (NGT)", which had been long awaited by many scientists. This reform proposal was long overdue, because the GMO legislation, now more than two decades old, no longer does justice to the current state of science and technology and blocks urgently needed innovative developments.

An international comparison also shows that many other countries have long followed an evidence-based approach and regulate plants not according to the way they are produced, but according to their characteristics.

The signatories of the open letter on the EU Commission's proposal

Researchers from all over Europe – expert commissions, academies, professional associations and scientific institutions – have repeatedly called for an amendment to the GMO Directive in the past and emphasized the potential of NGTs for a more sustainable agriculture. In fact, there are no scientific reasons to regulate identical changes made to the genome completely differently depending upon the method of generation. After all, the risks and benefits that can come from plants grown with NGTs do not depend on the breeding method, but on their ultimate characteristics.

From the point of view of the signatories of this open letter, it is also important and fitting to weigh opportunities and possible risks very carefully and to assess them in relation to each other on the basis of facts. This is exactly what the EU Commission has done with this proposal. Thus, there is now an opportunity to use new genomic techniques responsibly in order to meet the major challenges of the future.

Researchers around the world are working on new applications to better adapt plants to changing environmental and climatic conditions. For example, the proposed regulation makes sense when it links incentives to sustainable properties, for example when NGT methods are used to generate plants with higher tolerance or resistance to diseases and pests (biotic stress). The same applies to higher tolerance to extreme temperatures or drought (abiotic stress), higher nutritional value or higher yields.

In this context, we would like to explicitly counter claims that the scientific pipeline as a whole is unproductive: a detailed overview of all NGT-derived applications published so far is provided by the EU-SAGE database (https://www.eu-sage.eu/genome-search; accessed on 15.09.2023). It currently lists 786 published studies with agriculturally relevant applications in 70 different crop species. The range of these applications covers practically every conceivable breeding objective, from disease resistance and adaptation to climatic stress to modified plant product ingredients.

To put it bluntly: in view of the global challenges, a blanket rejection of the use of NGTs is completely inappropriate. Instead, it is high time to take into account the state of scientific

knowledge and the latest developments in plant breeding, to harmonize worldwide regulations for NGT, and thus enable innovative applications.

Our appeal to you as responsible politicians

The reform proposal presented by the EU Commission represents a successful balance between the state of scientific knowledge and the latest developments in plant breeding on the one hand and the interests of organic farming on the other. Like any good compromise, this proposal has been criticized from all sides.

Against the background outlined above, we ask you to support the regulation proposed by the EU Commission in the subsequent European coordination process.

The undersigned are at your disposal for further information and discussion.

Yours sincerely,

Prof. Dr. Klaus-Dieter Jany

1. Chairman WGG

Association of Genomics and Genetic Engineering e.V.

zentrale@wgg-ev.de

Prof. Dr. Karl-Josef Dietz

President VBIO

Association of Biology, Biosciences and Biomedicine in Germany

praesident@vbio.de