

Brussels, 19 January 2024

Subject: ENVI Vote 24th of January 2024 - Deregulation of new GMOs opens the door for herbicide-tolerant and pesticide-producing plants - danger to health and environment

Dear Member of the Committee on the Environment, Public Health and Food Safety,

On the 24th of January, you are invited to vote on the *Proposal for a Regulation on plants obtained by new genomic techniques (NGT) and their food and feed* in the Committee on the Environment, Public Health and Food Safety. With this letter PAN Europe would like to share its deep concerns about the current proposal and many of the amendments tabled so far, which contain extensive shortcomings. They will in their current form inevitably lead to unacceptable risks for human health and the environment. They would also have far-reaching negative impacts on rights of farmers, producers, retailers, consumers and public authorities.

Citizens have repeatedly expressed to be massively against deregulation of NGTs/GMOs, and insist on clear labelling¹. For example, in a recent Forsa poll, 96% of those surveyed were in favour of a safety check of plants that have been genetically modified using new processes. 92% are of the opinion that genetically modified foods must be labelled, regardless of whether new processes or classic genetic engineering were used².

In particular, PAN Europe is concerned by the **herbicide-tolerant (HT) crops** that will lead to an increase in the use of harmful pesticides, as is in particular witnessed in America with glyphosate-tolerant soybean, corn, rapeseed and sugar beet production, and its massive consequences on public health and the environment. Also **pesticide-producing (PP) crops** carry high risks for the environment, and increased resistance of pests.

Overall, it is essential that all GMOs, including NGTs, remain subject to a robust risk assessment to adequately assess possible impacts on ecosystems and their functioning, as well as on human health. This requires a thorough risk assessment of each individual NGT plant, in relation to human, animal and environmental health, as well as an assessment on the consequences of the increased presence of pesticides in the environment for the above-mentioned GMOs.

To our deep concern, this is not the case in the Commission's proposal. In its current version, HT crops could even be exempted from robust risk assessment, authorisation and labelling requirements, as they could be included in the Category 1 (see Annex 1 to this letter). Most of the recent proposed amendments of the rapporteur in the ENVI Committee drastically weaken the text even further, and would turn mandatory risk assessment of NGT plants into a rare exception. The compromise amendments of the ENVI rapporteur do include that NGT

¹ [400.000+ Europeans oppose push for deregulating new GMOs, IPSOS Opinion Poll on the Labelling of GM Crops](#)

² [Representative survey: A clear majority supports labeling and risk assessment of "new" genetic engineering \(Forsa, 2023\)](#)

with certain traits, among which HTs, can only be in category 2, and would therefore not be fully deregulated. On the other hand, it is not clear whether regulation of PP plants would still be guaranteed. Crops that contain genes from other organisms would remain regulated under the current Directive 2001/18/EC, but it is unclear whether PP NGT crops would remain regulated within the proposed NGT legislation. All HT and PP GMOs, including NGTs, should remain fully regulated under the current Directive 2001/18/EC.

In this respect, we would like to specifically underline the risks regarding Herbicide-tolerant (HT) and Pesticide-Producing (PP) Genetically Modified Organisms (GMOs).

HT GMOs are associated with well-known and far-reaching detrimental impacts on the environment, public health and quality of water supplies³ in the United States, Latin America and Asia. HT GMOs, namely in soybean, maize and cotton production, have led to an outspoken increase in the use of herbicides. For example, between 1995 and 2014 the global use of glyphosate showed an almost 15-fold increase, mainly due to an increase in HT crops. Intensified use of glyphosate has also led worldwide to glyphosate-resistant weed species, affecting yield production and incentivising further pesticide use. Experience has shown that as crops develop resistance, more and different cocktails of pesticides are applied to counter these developments.

Despite a large body of scientific evidence showing the harmful impacts of glyphosate on human health and the environment⁴, its licence for use was recently reapproved in the EU for 10 years. Conveniently, the use of HT GMOs in the EU is now promoted by the same industry as glyphosate and will open the door to increased use of glyphosate.

Pesticide Producing GMOs ('insect-resistant GMOs'), making up 57% of global GMOs, have been associated with risks for beneficial, non-target organisms. Their cultivation leads to a substantial increase in the amount of toxic pesticides present in the environment because of the insecticides produced by the plants themselves. A plant that used to be non-toxic (or where before only a small part of the plant was toxic) can suddenly become toxic to bees, butterflies, ladybirds and other beneficial insects, as well as soil life and other biodiversity. As expression of insecticides in leaves, stem, roots, pollen, nectar, guttation fluids and soils could have dramatic negative consequences on insects and ecosystems, NGT plants should be assessed individually and for all matrices. The widely used BT varieties use a gene from a different organism, and would therefore remain regulated. However, NGT plants that already contain toxins in a certain part of the plant could become much more toxic when this toxin is expressed elsewhere in the plant. As in this case no external genes are needed, these plants would not be regulated anymore. This is not mentioned in the proposal and the underlying documents.

PP GMOs can also lead to increased pest-resistance (see Annex 2 to this letter), affecting crop yields negatively and harming the environment. Evidently the assumed advantages of such crops are limited in time while they trap farmers in a situation of dependence towards seed companies.

Contrary to the NGT plant producers' claims, evidence shows that HT and PP GMOs have not led to a decrease in sales of pesticides in countries where they are allowed, and to zero benefits for ecosystems, farmers and citizens. It is clear that important lessons need to be

³ The Introduction of Thousands of Tonnes of Glyphosate in the food Chain - An Evaluation of Glyphosate Tolerant Soybeans - What the World's Most Controversial Herbicide Is Doing to Rural Argentina - Impacts of genetically engineered crops on pesticide use in the US – The first sixteen years. Environmental Sciences Europe. - Trends in glyphosate herbicide use in the United States and globally. Environmental Sciences Europe - Genetically engineered crops and pesticide use in US maize and soybeans. Science Advances

⁴ Expert meeting shows that glyphosate is not safe for health and environment - Letter of Belgian and Dutch Scientists: Take independent science seriously when deciding on glyphosate -

drawn from the detrimental impacts of HT and PP GMOs in different parts of the world. The introduction of these GMOs and their impacts in the EU would be devastating and must be avoided. Given the urgent need to reduce pesticide use to safeguard human health and ecosystems, HT and PP GMOs/NGTs should not be approved. At the very least, it is essential that they are subjected to robust risk assessment, as with other GMOs. They should at least remain regulated under Directive 2001/18/EC.

Many scientists⁵ have warned about the shortcomings of the Commission's proposal. They stress that in its current form it falls short to ensure health or environmental safety. It also poses important risks regarding transparency, labelling and freedom to choose (Annex 3 to this letter), the lack of coexistence measures for GMO/NGT, conventional and organic crops (Annex 4) and patenting (Annex 5), which need to be addressed thoroughly.

It is essential to ensure that the development of truly sustainable and resilient food production systems remains central in EU decision-making. Regrettable and/or inefficient substitution must be avoided. GMOs have been associated with a decrease in genetic diversity, increase in monocultural production, decreased resilience against pests and increase in pesticide use. Deregulation of NGTs is completely unnecessary to ensure EU food security and sovereignty, on the contrary. Sufficient scientific and empirical knowledge is available to show that cropping systems based on integrated pest management and enhancement of ecosystem services allow us to face societal and environmental needs.

We respectfully ask you to take into account these important concerns during the vote in the ENVI Committee on 24th of January.

Thank you very much for your time and consideration,

Sincerely,

Kristine De Schamphelaere, Policy Officer Agriculture, PAN Europe
Natalija Svrtan, Campaigner Agriculture and Pesticide Free Towns, PAN Europe

⁵ [Tofghi-Niaki A et al \(2023\). Open Letter: Serious concerns about the EU Commission proposal on New Genomic Techniques. 19 Nov](#) - [Statement by The European Network of Scientists for Social and Environmental Responsibility \(ENSSER\) - GMWatch \(2023\). Academics, scientists call to scrap gene-editing proposal. 20 Nov](#) - [GMWatch \(2023\). New GM plants: EU Commission has lost sight of science and safety. 19 Oct](#) - [EU Commission proposal is "scientifically unacceptable" and trashes the precautionary principle. GMWatch, 11 Jul](#) - [Expert statement on risks of NGT plants](#)

Annexes

Annex 1

This U-turn of the Commission from its original intention to place HT-GMOs in Category 2, and continue the safety assessment of HT GMOs regarding human health and the environment, was the result of intense lobby efforts by the industry.

Annex 2 - Development of resistance

Target pests naturally developed resistance to the increased toxins in PP GMOs. This process was to be expected (Doyle, 1999). For example, specimens of the Western corn rootworm in the US have already developed resistance to several toxins of pesticide-producing GMOs. This has then led to the creation of new-generation GMOs, that in turn resulted in new pest-resistances.

Doyle E (1999): Environmental benefits and sustainable agriculture through biotechnology. Executive Summary of the Ceres Forum at Georgetown University; 10–11 November; Washington, DC.

Gassmann AJ; Petzold-Maxwell JL, Clifton EH; Dunbar MW, Hoffmann AM, Ingber DA & Keweshan RS (2013): Field-evolved resistance by western corn rootworm to multiple *Bacillus thuringiensis* toxins in transgenic maize. PNAS 111 (14) 5141-5146 <https://doi.org/10.1073/pnas.1317179111>

Ordosch D, Nareem R & Szczepaniec A (2016): Effectiveness of Bt Maize against Corn Rootworm (Coleoptera: Chrysomelidae) and Species Composition in South Dakota Ten Years Following the Introduction of Transgenic Maize. Journal of Agricultural and Urban Entomology 32(1); 59-70 <https://doi.org/10.3954/1523-5475-32.1.59>

Shrestha RB, Dunbar MW, French BW & Gassmann AJ (2018): Effects of field history on resistance to Bt maize by western corn rootworm, *Diabrotica virgifera virgifera* LeConte (Coleoptera: Chrysomelidae). PLoS ONE 13(7): e0200156. <https://doi.org/10.1371/journal.pone.0200156>

Annex 3: Transparency, labelling and freedom to choose are a prerequisite to respect rights of farmers, retailers, consumers and local/national/regional public authorities

It is essential that all GMO/NGT seeds and products, from all categories, from EU and non-EU production, are labelled from start to end of the food chain. The right to choose should be guaranteed. It is an essential right, and cornerstone of the free market, that producers, retailers, consumers and authorities are informed, and policy makers have the duty to protect this right to choose. There is no valid argument to deprive these different players of these rights. Citizens have expressed repeatedly that they **attach great importance to the environmental and health impact of their food, robust regulation of GMOs and NGTs, as well as to transparency regarding labelling**, as expressed for example in a 2021 poll, a 2023 poll and a 2023 petition.

Annex 4: Coexistence of GMO/NGT, conventional and organic crops

It is fundamental to introduce coexistence measures for NGT1 and NGT2 plants to prevent the unintentional mixing of NGT crops with conventional and ecological crops. Such mixing may lead to unintended consequences, such as cross-pollination and spread of NGT traits to

wild plants, which can have negative impacts for biodiversity. The mixing of NGT crops with conventional and ecological crops would also have economic consequences for farmers. GM material will be distributed during transport of seeds, via wind or pollinators. Farmers growing conventional or ecological crops may face reduced market opportunities, as it will be very challenging or impossible to guarantee that their crops are not contaminated with NGT traits. Measures should include clear labelling requirements for NGT crops, physical barriers between fields of NGT and non-NGT crops, management practices to prevent cross-pollination and monitoring programs to detect and prevent contamination.

Annex 5: Prohibition of patenting NGT plants (those obtained by methods that can occur in nature)

Patenting NGTs raises a number of complex issues that need to be carefully considered before making any decisions about the future of these technologies. Namely, patenting NGTs will lead to the formation of monopolies or oligopolies in the agricultural sector. This will give these companies excessive control over the market, ownership over natural processes, and will tie farmers to those companies, thus impacting already declining biodiversity. Farmers would have less control over the breeding of their crops if NGTs were patented, and they would not be able to freely share and exchange seeds with other farmers. Also, the patenting process for NGTs is opaque and secretive. This makes it difficult for farmers, scientists, and the public to understand the risks and benefits of these technologies.