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Position on new genomic techniques in plant breeding

The beekeeping community is concerned about both the European Commission's legislative proposal and the European Council's position on regulating plants produced using new genomic techniques (NGT). Both have numerous loopholes that also harbour considerable risks for beekeeping. Our customers – just like us beekeepers - see beekeeping products such as honey, pollen or propolis as pure, natural products that should be GMO-free. However, the coexistence of GMO-free beekeeping and the cultivation of NGT-1 plants would no longer be possible, since NGT-1 plants are considered GMOs according to the Cartagena Protocol[1,2] and the ruling of the European Court of Justice[3], even if the current legislative proposal suggests otherwise (see further below).

GMO-free agriculture and the food industry – and thus also beekeeping - would incur enormous costs to prove GMO-free status (including NGT-plants) to customers. Additionally, there is a risk of a sales slump if fewer beekeeping products are purchased in the future due to an unsettled customer base. There is also a risk that NGT-1 plants, which are toxic to pollinators, could be cultivated without a risk assessment.

Toxic plants for pollinators are possible.
Limiting the induced changes in NGT-1 plants to an arbitrary maximum of 20 base pairs is not a valid argument for dispensing with a risk assessment for this newly introduced GMO-plant category. This was demonstrated by a proof-of-concept study[4] by the organisations Testbiotech, Aurelia Stiftung, and Save Our Seeds. It used artificial intelligence to create the genetic blueprint of a plant that complies with the legal limit but is potentially toxic to certain pollinators. The blueprint identified in the project would enable the creation of a maize plant that produces more certain proteins, which in turn

[1] https://bch.cbd.int/protocol

[2] Vöneky (2025). Gutachten zur Vereinbarkeit des EU-Vorschlags für eine Verordnung über mit bestimmten neuen genomischen Techniken (NGT) gewonnenen Pflanzen mit dem Cartagena Protokoll über die biologische Sicherheit.
https://www.bmel.de/SharedDocs/Downloads/DE/_Landwirtschaft/Gruene-Gentechnik/NGT-Gutachten-EU-Vorschlag.pdf?__blob=publicationFile&v=4

[3] European Court of Justice, Case C-528/16 Confédération paysanne and Others v Premier ministre and Ministre de l'agriculture, de l'agroalimentaire et de la forêt [2018] ECLI:EU:C:2018:583.

[4] www.testbiotech.org/wp-content/uploads/2025/05/AI-designs-NGT-1-plants_-5.pdf

disrupt the digestion of Lepidopteran pests. Typically, these proteins are only generated temporarily in response to stressful situations. If produced permanently in NGT-1 plants, they could also appear in nectar and pollen.

The criterion for NGT-1 plants to have a maximum of 20 modified base pairs has already been classified as arbitrary and scientifically unfounded by the French Agency for Food Safety, Environment and Labour Protection[5], the German Federal Agency for Nature Conservation[6] and the Austrian Federal Environment Agency[7]. The latter, for example, recommends: "*A standardised, comprehensive safety test of NGT plants is still necessary.*" The German Federal Agency for Nature Conservation also makes it clear that the precautionary principle enshrined in EU primary law must continue to take centre stage in the regulation of genetically modified plants: "*The current legislative proposal does not meet this requirement*."[8] Consequently, the obligatory risk assessment for all genetically modified plants must remain in place.

No unrestricted patent right.
The Commission's legislative proposal does not prohibit the patenting of NGT plants. However, it is essential to comprehensively restrict the patenting of biological material for plant breeding that also occurs, could occur or has arisen by chance in nature. The major German agricultural organisations have also called for this in a joint statement[9]. Patents have proven to be an increasing obstacle to innovation in practical plant breeding. As the number of patents increases, the diversity of varieties would decrease, to the detriment of agriculture and beekeeping. With limited diversity, there is a high risk that only a few varieties will be cultivated, which offer less or no nectar and pollen for pollinators or have other disadvantages. This is why BeeLife and all its members are also calling for the plant variety protection system not to be undermined by a patent system. Breeders must be able to build on the achievements of their colleagues continuously. The agricultural landscape already often lacks a consistent and diverse food supply for pollinators. Patents must not further restrict diversity in the fields.

Disregard for the Cartagena Protocol.
The legislative proposal to deregulate new genomic techniques also contravenes the Cartagena Protocol, a binding treaty under international law to which the European Union

[5] ANSES (2023). Opinion of the French Agency for Food, Environmental and Occupational Health & Safety. https://www.anses.fr/fr/system/files/BIOT2023AUTO0189EN.pdf

[6] Mundorf et al. (2025). The European Commission's Regulatory Proposal on New Genomic Techniques in Plants: A Spotlight on Equivalence, Complexity, and Artificial Intelligence. Prepints.org. https://www.preprints.org/frontend/manuscript/25456745d8b30b26d752f23dbacb98ca/download_pub

[7] Eckerstorfer M. & Heissenberger A. (2023). New genetic engineering – possible unintended effects. Verlag Arbeiterkammer Wien. file:///C:/Users/Spiewok/Downloads/AC16982244-1.pdf

[8] Bundesamt für Naturschutz (2024). For a science-based regulation of plants from new genetic techniques. Policy Brief 02/2024. https://www.bfn.de/sites/default/files/2024-02/24_02_07_BfN_policy_brief_NGT-7.pdf

[9] Einschränkung von Biopatenten für Züchtung und Landwirtschaft dringend geboten. (2025) https://www.bioland.de/fileadmin/user_upload/Verband/Kernthemen/Dokumente/2025-06-12_Positionspapaier_Biopatente_final_komplett__002_.pdf

and its member states are signatories. The expert opinion[10] by legal scholar Prof. Dr Silja Vöneky from the University of Freiburg, Germany makes it clear that the Council's version of the proposed law also fails to take into account at least the prescribed registration and notification obligations, as well as the labelling obligation for plants and all subsequent products. To ensure that the planned law complies with the requirements of the Cartagena Protocol, a future EU regulation must include notification and reporting obligations as well as the obligation to label all genetically modified plants and their products. This also includes the responsibility to ensure traceability. There are often warnings of excessive bureaucracy here, but the truth is that this is an attempt to pass on the costs of controls to the non-GMO sector.

Will honey become a novel food?

So far, it is unclear whether honey or any other beekeeping products could become a novel food if the bees have foraged on NGT-1 plants. A legal opinion[11] by Dr Georg Buchholz (GGSC) for the *Verband Lebensmittel ohne Gentechnik* criticises the fact that the legislative proposal poses considerable risks and additional burdens for the food industry. According to the opinion, the Novel Food Regulation would have to step in for NGT-1 plants. This means that NGT-1 plants could be placed on the market without restriction, risk assessment or traceability, but food produced from them may not be sold - if they are classified as novel food but have not been authorised as such. There are many unanswered questions here, which also affect beekeeping and should be reviewed by the courts first.

Freedom of choice, mandatory labelling, risk assessment and patent ban.

Like many farmers, consumer protection organisations, the organic sector and companies in the food industry[12] and also the majority of the citizens [13], we are calling for:

- Freedom of choice for farmers, beekeepers, the food industry and consumers – coexistence with the cultivation of genetically modified plants must be guaranteed for GMO-free agriculture and beekeeping;
- Restrict patents on genetically modified plants;
- Mandatory labelling not only for seeds, but throughout the entire production chain;
- Mandatory traceability;
- Obligation to disclose the methods used to identify each NGT plant;
- Obligation to carry out a risk assessment before placing an NGT plant on the market;
- Protection of products – including beekeeping products - from contamination by NGT-1 plants and other genetically modified plants,

[10] Vöneky (2025). Gutachten zur Vereinbarkeit des EU-Vorschlags für eine Verordnung über mit bestimmten neuen genomischen Techniken (NGT) gewonnenen Pflanzen mit dem Cartagena Protokoll über die biologische Sicherheit.
https://www.bmel.de/SharedDocs/Downloads/DE/_Landwirtschaft/Gruene-Gentechnik/NGT-Gutachten-EU-Vorschlag.pdf?__blob=publicationFile&v=4

[11] Buchholz (2024) Zur Haftung von Lebensmittel-Unternehmen für neue Gentechnik im Falle einer Deregulierung.
https://www.ggsc.de/aktuelles/aktuelle-meldungen/ggsc-gutachten-neue-gentechnik-belastet-lebensmittelunternehmen

[12] https://www.ohnegentechnik.org/en/news/article/european-enterprises-call-for-rigorous-labelling-of-ngts

[13] https://www.foodwatch.org/de/repraesentative-umfrage-deutliche-mehrheit-befuerwortet-kennzeichnung-und-risikopruefung-von-neuer-gentechnik

- Application of the polluter-pays principle concerning costs for necessary control tests to prove that products are GMO-free, and in the event of damage caused by contamination.

Beekeeping is already under pressure from climate change, environmental pollution, habitat loss, and unfair competition in the honey market. It cannot shoulder further problems and uncertain legal situations caused by the deregulation of new genomic techniques. We therefore call on the negotiating partners in the trialogue not to allow any major deregulation of NGT plants and to take the beekeepers' demands into account in this process.