New genomic techniques: What’s next?

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The Commission’s long-awaited proposal – spearheaded by its health and food safety division, DG SANTE – on whether to loosen EU rules on new genetic techniques is expected in June 2023.

But while DG SANTE has long hinted that it is in favour of deregulation, a number of question marks remain over the contentious technology, including its compatibility with the EU organics sector, patents, traceability and detection.

In this Event Report, EURACTIV explores some of the tensions surrounding the technology ahead of the presentation of the proposal.
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Organic farming and gene editing: Is coexistence possible?

By Natasha Foote | EURACTIV.com

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The question of coexistence is particularly pertinent in light of the EU’s ambition to see 25% of the bloc’s farmland under organic production by 2030. [SHUTTERSTOCK]

The coexistence of gene editing with organic production systems remains a point of contention within the European Commission. While proponents of the technology maintain the two can go hand in hand, the EU’s organics sector warns coexistence requires robust traceability and liability mechanisms.

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The Commission’s long-awaited proposal – spearheaded by its health and food safety division, DG SANTE – on whether to loosen EU rules on new genetic techniques is expected in the second quarter of 2023.

But while DG SANTE has long hinted it favours deregulation, a number of question marks remain for the farming side of the EU executive, including coexistence between conventional and organic farmers.

“One really important point for us is [...] to see how we can ensure coexistence without creating so much red tape,” Joanna Stawowy, a member of EU Agriculture Commissioner Janusz Wojciechowski’s cabinet, told a recent event, noting that farmers are “already swamped in administrative work”.

As such, she stressed the need
for a ‘reasonable conclusion’ drawing the line between conventional and gene-edited seeds, which she said will then “help organic farmers to actually benefit from the good solutions” rather than worry about avoiding contamination.

“What we need is really to see the draft legislation open a discussion on this,” she said, stressing the need for “pragmatic” legislation which allows appropriate tools for farmers.

The question of coexistence is particularly pertinent in light of the EU’s ambition to see 25% of the bloc’s farmland under organic production by 2030.

**A tool in the organic toolbox?**

Euroseeds, representing the EU’s plant breeding sector, sees technology as an opportunity for the organics sector.

“[We] would like to see these kinds of technologies and the resulting products available for all types of farmers, whether small, large, organic, conventional,” said the association’s secretary general, Garlich von Essen.

Von Essen explained that NGTs should be seen as a tool to “achieve breeding objectives faster and more precisely”, likening the innovation to the move from a classical screwdriver to an electric one.

Meanwhile, Plant ETP, a multistakeholder organisation representing the European seed and breeding sector, recently published an open letter in which it recommends moving away from a separation of conventional and organic production systems and "focusing on synergies to leverage the best of both worlds".

“There is a growing number of stakeholders within the organic sector who share this view and would like the option to use conventional-like NGT plants while maintaining their organic certification,” Plant ETP wrote, noting that a significant proportion of farmers supplying the organic sector manage both organic and conventional production.

**No coexistence without traceability**

But while Jan Plagge, president of the EU organics association IFOAM, noted that “minority opinions” exist, he said there is a “clear majority among organic operators” who consider NGTs to be a “diversion from the systemic agroecological innovations we need to truly improve the sustainability of agriculture”.

As such, the association maintains that coexistence requires robust traceability and labelling for NGTs in the EU legislation to “guarantee all farmers the freedom not to use NGTs through mandatory traceability”.

“"If the Commission's proposal takes traceability and transparency away by assimilating NGTs to conventional breeding methods, then there is no "coexistence" possible and it would amount to imposing the use of NGTs to all farmers, organic or not," IFOAM’s deputy director Eric Gall told EURACTIV.

This should be combined with a strict liability regime which compensates farmers in case of the adventitious presence of NGTs, he added.

However, as things currently stand, detection and traceability present a technical challenge.

To help remedy this, the EU recently opened a €10 million call for research on detection methods for products engineered with gene editing technology under its Horizon Europe funding programme.

The call, the first of its kind, aims to “contribute to ensuring traceability and authenticity, enhancing transparency and promoting innovation in the area of new genomic techniques”.

Green MEP Martin Häusling hailed the move as a welcome change from past EU research policy but complained that only a small amount of funding is available for the two projects.

As such, he called for further projects to be funded, as well as for funding dedicated to EU research on the potential risks of NGTs.
The EU must work towards regulation that enables the responsible use of new genomic techniques (NGTs) to innovate the farming sector while remaining centred around the precautionary principle, according to centre-right MEP Norbert Lins.

The comments come as the Commission’s service for food safety DG SANTE is putting its finishing touches on its long-awaited proposal on whether to loosen EU rules on the NGTs, expected in July.

Gene editing describes several new scientific methods to alter genomes to genetically engineer certain traits into plants, such as drought tolerance and pest resistance.

For the lawmaker, who is also chair of the European Parliament’s agriculture committee, the EU “need[s] a regulation that enables the responsible use of new breeding techniques for urgently needed innovations in plant breeding”.

He said that breeding pressure “remains high”, stressing that new varieties are needed to deliver stable yields and conserve natural
resources like water and nutrients.

However, this responsible approach must remain rooted in the precautionary principle, which “takes into account the potential risk to humans, animals, plants, and the environment”.

The precautionary principle is an approach to risk management where, if it is possible that a given policy or action might cause harm to the public or the environment and if there is still no scientific agreement on the issue, the procedure or action in question should not be carried out.

**No unnecessary restrictions**

However, at the same time, the legislative proposal should be designed so that it “does not impose any unnecessary restrictions on agriculture,” Lins, who has long been a vocal advocate of the technology, said.

“That is what I expect from the Commission’s legislative proposal. We in Parliament will decide on the ways and means as soon as the legislative proposal is available,” he said.

This is because, according to Lins, the EU must embrace all potential tools in the toolbox to help future-proof the farming sector against climate change.

A recent project initiated in 2020 and carried out by the German Federation of Plant Innovation is trying to provide real-world evidence that this new technology can actually bring benefits for both farmers by reducing their costs and for the environment by reducing the use of plant protection products.

The project is the first collaborative one dealing with NGTs in Europe as it brings together roughly 60 mostly medium-sized plant breeding companies, and it aims to develop wheat plants enhanced with tolerances against fungi.

“We should be open to all kinds of technologies that help us face the challenges that lie ahead of us,” Lins said, adding that new breeding techniques can be “one tool to reduce pesticide use, ensure food security, and help to adapt to climate change”.

**The compatibility question**

On one side, DG SANTE is in favour of loosening the rules around gene editing, but on the other side, the Commission’s agricultural service DG AGRI believes that several question marks remain over the proposal, one of which is the compatibility of the technology with the organic sector.

While the majority of the organic sector remains opposed to the use of this technology, Lins pointed out that there are “also voices in the organic sector that claim that new breeding techniques could be a solution for the challenges they are facing,” noting these are, too a large extent, the “same as in conventional farming”.

According to Lins, these voices are right, but he maintained that he has “always been a strong advocate” for the coexistence of organic and conventional farming.

As such, the MEP said that the development of NGTs must be accompanied by a simultaneous promotion of biological safety research and research into reliable detection methods for new breeding techniques.

“Of course, we have to keep an open eye on all possible consequences and should not neglect possible negative effects,” he said.

Meanwhile, the MEP also stressed the need for a “broad societal dialogue process”.

“We have to have a public debate that takes into account the public concerns but shows at the same time the possibilities of these new techniques,” he concluded.