Veille citoyenne d'information sur les OGM et les semences

GMOs on the agenda at COP 30

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At a time when countries are meeting in Belém, Brazil, to discuss the tools needed to combat climate change, *Inf'OGM* wishes to shed light on the role of biotechnology in these negotiations. Biotechnology companies are making several promises: GMOs will help combat world hunger and climate change.

On several occasions at the COP (Conference of the Parties) climate conference, the biotechnology industry has attempted to promote its innovations as relevant tools in the fight against climate change.

Biotech industries in force at COP30

At COP 30, the Brazilian presidency is actively promoting agrofuels, which are said to emit less greenhouse gases than fossil fuels. It wants to convince 19 other countries (including India, Italy and Japan) to join its *"Belém Commitment for Sustainable Fuels"* (or Belém 4X)[1], which aims to quadruple production and use by 2035. However, biofuels are problematic in more ways than one. In Brazil, as we mention in our podcast[2], agrofuels are often produced from sugar cane. Among the

companies involved in this industry in Brazil is the French company Tereos[3], which owns the Beghin-Say sugar brand. Brazil has authorised several genetically modified yeasts to officially convert bagasse into ethanol. Bagasse is the fibrous residue of sugar cane once it has been pressed to extract the sugar. Bagasse is considered waste. So, in theory, there is no competition with food crops.

However, a study by the Getulio Vargas Foundation, conducted in 2024, challenges this idyllic image. Marcello Santana, a researcher at the Brazilian School of Economics and Finance, which is part of this foundation, explains that there are two ways to increase sugar cane production: replanting more often or expanding cultivation to new areas.
Let us quote directly from the conclusion of this study: "*Our study revealed that when ethanol production increases in Brazil, only 8% of the new ethanol comes from sugar cane that has been planted more intensively. The remaining 92% comes from new areas*." It goes on to say: "*In this research, we identified that 20% of these new areas were originally forests, which implies deforestation to produce the plants needed to produce this biofuel. 70% of the new areas were either pasture or used to grow other crops, such as wheat and maize*."
In other words, fuels produced from sugar cane and genetically modified yeast have contributed to deforestation in Brazil. This advertising of a biofuel produced solely by fermenting waste therefore does not hold water.

Agribusiness companies decided to get heavily involved in COP 30. Bayer paid €161,000 to become a "*diamond*" sponsor of COP 30 and secure a place in Agrizone, the conference's "*sustainable agriculture*" pavilion. It also restored a historic building in Belém to create the "*Casa Bayer*", a meeting place for political, economic and civil actors during the COP. Bayer is promoting its seeds there, which it describes as climate-resilient[4].

Many other conferences and workshops organised by multinationals promote the "*agritech*" package (digital, genetic, robotic) as a means of making agriculture more resilient to climate change and reducing our greenhouse gas (GHG) emissions[5]. Syngenta is hosting a discussion for experts entitled "*Farming for the Future: Boosting Agricultural Productivity While Protecting the Planet*"[6]. Speakers include Teresa Cristina Vendramini, former president of the Brazilian Rural Society (Sociedade Rural Brasileira, SRB), who has always supported the cultivation of genetically modified soybeans to tolerate herbicides (particularly RoundUp). However, these crops have contributed to deforestation in the Amazon and Cerrado[7] and, as such, are significant emitters of greenhouse gases.
For its part, CropLife[8] is organising several events for delegations, aimed at promoting the benefits of "*innovative agricultural solutions*", particularly in biotechnology[9]. The general argument is that more productive agriculture using modern technologies emits less GHG per calorie produced.

GMOs promoted since the first COP

The idea that GMOs are allies for the climate is not new. Let's take a brief look back at history.

We have already mentioned two GMOs eligible for carbon credits in our podcast[10]. In 2003, in Milan (Italy), during COP 9, it was agreed that companies and governments in "*Northern countries*" could plant fast-growing transgenic trees in "*Southern countries*" as part of *the* "*Clean Development Mechanisms*" defined by the Kyoto Protocol. The simplistic argument was that the faster trees grow, the better they can act as carbon sinks. In addition to the criticisms levelled at these carbon sinks (the need to protect the trees so that they do not die, the prohibition on the use of wood by local populations, etc.), the use of genetically modified trees has been denounced as worsening an already poor solution due to the risks they entail.

However, projects involving trees to store more carbon continue to develop, as evidenced by the company Living Carbon. In April 2025, Microsoft committed to purchasing 1.4 million tonnes of carbon credits from Living Carbon for a reforestation project covering just over 10,000 hectares of mining land in the Appalachian region. These carbon credits are certified by Isometric[11]. We estimate that between 15 and 20 million trees will need to be planted on this area. What type of tree is it? It is impossible to know. In any case, Isometric has not explicitly excluded GMO trees from its methodology. The information is all the more difficult to obtain as US agencies have deemed that these transgenic poplars can be planted without authorisation. And there is no requirement to keep a public register.

The other "*innovation*" is NUE technology, which stands for *Nitrogen Use Efficiency*. Developed by Arcadia BioScience, this process is supposed to create transgenic plants that would require less nitrogen fertiliser. However, industrial fertilisers emit nitrous oxide, a powerful greenhouse gas. Arcadia BioScience has signed licensing agreements with major seed companies such as Monsanto (now Bayer), Dupont and Vilmorin. In 2012, NUE technology became eligible for carbon credits[12]. Is this technology effective? It is impossible to know: no objective data has been published. Verra, the carbon credit certifier that had validated this technology, abandoned it in 2023. When questioned by *Inf'OGM,* Verra stated that this was *due to* "*lack of use*".

A second, broader methodology has been accredited: it includes NUE seeds, but also fertiliser management practices. It has been used in 35 projects, but it is impossible to know whether or not these projects involve the use of NUE seeds. In concrete terms, NUE transgenic plants are F1 hybrid varieties selected to be grown according to the principles of industrial agriculture. Therefore, even if these seeds do indeed allow for better absorption of nitrogen fertilisers, which again has never been demonstrated in the field, this will not offset the greenhouse gas emissions inherent in this type of agriculture.

At COP 25 in Madrid, Spain, in 2019, European Commission President Ursula von der Leyen presented the Green Deal. In a provisional version obtained by *Inf'OGM*[13], the Commission announced that innovation, and in particular "*new genomic techniques*", are necessary to "*adapt to climate change and improve the sustainability of food systems*". The barely disguised reference to GMOs behind this new expression disappeared from the final version. But in 2021, at COP 26 in Glasgow, Scotland, the idea was back on the negotiating table.

It was at COP 26 that the US-Emirati initiative "*AIM [Agricultural Innovation Mission] for Climate*" was officially launched[14]. Once again, the aim was to promote GMOs and less restrictive regulations to facilitate their dissemination. Among the companies involved is Pivot Bio, which genetically modifies microbes to produce nitrogen. Karsten Temme, CEO and co-founder of the company, explains that, as part of its partnership with "*AIM for Climate*", his company *"will bring together the best minds and ideas to accelerate the pace of our product development and increase farmers' access to a reliable and sustainable source of nitrogen*". When questioned by *Inf'OGM,* a representative of the European Commission revealed that, as part of its partnership with *AIM for Climate*, the Commission has announced €750 million in investment in research and innovation "*for climate-smart agriculture for 2021 and 2022 combined*". This amount corresponds to the funding available under the Horizon Europe work programme calls for proposals for 2021 and 2022, in particular the topics of Horizon Europe *cluster* 6 ("*Food, bioeconomy, natural resources, agriculture and environment*") and the "*A Soil Deal for Europe*" mission.

2 “Agrocarburants, pire que le pétrole ?”, *Inf’OGM*, 1 October 2025

3Christophe Noisette, "Brésil – Le sucre de canne transgénique arrive", *Inf'OGM*, 9 March 2018.

4 Channel World Seed by ISF, "#WorldSeed2025: 'Climate Resilience Starts with Seeds: Our roadmap to Brazil COP30'," 19 May 2025.

5 "Agritech: a new dependence for farmers", *Inf'OGM*.

6 Syngenta Group, "COP30 in Brazil: Five Innovative Solutions for Sustainable Agriculture and Global Food Security," 13 October 2025.

7 Christophe Noisette, "Soja : le Cese condamne la déforestation importée", *Inf'OGM*, 25 June 2020.
Christophe Noisette, "Le soja en Amérique latine : chance ou cauchemar ?", *Inf'OGM, le journal*, no. 157, November/December 2019.

8 Denis Meshaka, "Pro-GMO multinationals indirectly manage the Svalbard seed bank", *Inf'OGM,* 28 November 2024.

9 CropLife Brasil, "CropLife Brasil will be at COP30 in Belém, bringing the voice of tropical agriculture to the centre of the climate debate," 8 November 2025.

10 "L'arbre qui cache les biotech", *Inf'OGM*, 15 October 2025.

11 Isometric, "Reforestation."

12 Arcadia Biosciences, "U.N. Clean Development Mechanism Approves Arcadia Biosciences Methodology, Links Carbon Credits to Crop Genetic Improvements for First Time," 19 December 2012.

13 Christophe Noisette, "Changement climatique : « ne changeons rien » !", *Inf'OGM, le journal*, no. 158, January/March 2020.

14 Charlotte Krinke, "Le changement climatique : une opportunité pour les OGM ?", *Inf'OGM*, 15 December 2022.

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