STOP NEW GMOs!

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GMOs are "organisms, with the exception of human beings, in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination"[1].

These genetic manipulations can unpredictably generate many unexpected and concealed effects that represent health and environmental risks. The patents they are given threaten the right of peasants and family farmers to use their own seeds, the right of individuals to choose their food, and food sovereignty.

Thus, it should come as no surprise that the people of Europe massively reject GMOs.

Are GM plants definitively something of the past, on their way to the dustbin of history along with all the other old useless inventions that are unsafe and even dangerous for humanity and the planet? A beguiling refrain has been implying this for some time now, promising a series of "new breeding techniques" that would be clean, surgical, fully controlled and without any risk whatsoever. According to this refrain, these New Breeding Techniques, or NBTs, should above all not be classified as GMOs so as not to block their ongoing development. But what are these NBTs really?

NBTs OR NEW GMOs ?

The biotechnology industry uses the term "New Plant Breeding Techniques" to refer to a diverse set of genetic engineering techniques claiming that they are not GM when in reality they are. Doing so the Seed biotechnological industry would like to avoid having the products issued by these techniques regulated as GMOs and intends, thus, to hide those GMOs from EU consumers who are fundamentally against GMOs.

The New Breeding Techniques that are currently being developed consist in:

- artificially inserting into plant cells biological material (genetic sequences and/or proteins)[2] intended to cause genetic alterations;
- inserting into plant cells a transgene[3] from the same plant family;
- inserting into plant cells a transgene intended to alter some of their genes, then eliminating this transgene while keeping the new intended and unintended genetic traits it enabled;
- grafting onto a transgenic plant another plant that is not transgenic. The latter will receive all the genetic and chemical components which are conveyed with the sap of the GM rootstock.

As with transgenic GMOs, the first of these plants are herbicide tolerant. Their cultivation would necessarily increase the presence of pesticide residues in the soil and water, as well as in our food.

For more information on the description of each technique and the risks it generates: http://bit.ly/1XBLy1p

1 Definition of GMOs in Article 2 of the European Directive 2001/18 that regulates GMOs..

2 The objective is to alter the plant's genetic features and therefore the properties of its proteins.

3 Genetic material prepared outside before being inserted into an organism

12 REASONS TO REGULATE NEW GMOs

1

ONLY WHEN CONSUMERS ARE INFORMED CAN GMOS BE REJECTED

Thanks to the strong mobilisation of consumers, peasants and smallholders, environmentalists and citizens, the labelling of GMOs has become mandatory in Europe: less than 1% of crops and of plant-based human food consists of transgenic GMOs. Only livestock is fed on GMOs imported from the American continent[4]. Therefore, it is when consumers lose their right to information that GMOs threaten to take over their plate.

2

THEY ARE RENAMED NBTS IN ORDER TO SELL GMOS WITHOUT INFORMING CONSUMERS

Since the invention of the first GMOs, the industry has improved its genetic modification processes. Its communication services have thought up the concept of "new breeding, or plant improvement techniques", which aims at making us believe that they do not involve genetic manipulation. But communication messages often hide a completely different reality.

The term "NEW" aims to differentiate these techniques from the transgenesis that is today clearly subjected to GMO regulation. Transgenesis consists in combining a few genetic sequences outside an organism before inserting them randomly into its genome. The New Breeding Technologies aim to replace transgenesis, which is less and less used to develop new commercial products. The concept of "breeding" or "plant improvement" incorporates all tradional techniques aimed at making plants evolve in order to select and multiply those with specific desired features.

These techniques are applied to plants or parts of plants. However, New Breeding Technologies intervene directly at the gene level, just like transgenesis does. They cause genetic modifications "in a way that does not occur naturally by mating and/or natural recombination". All are "in vitro nucleic acid techniques[5]". Therefore, they all undoubtedly produce GMOs.

3

HUMAN BEINGS CANNOT INVENT NATURE

From the start the bio-tech industry intended to protect all its new GMOs with patents. But a patent can only be applied to inventions and not to discoveries. It cannot protect techniques that "consist entirely of natural phenomena such as crossing or selection"[6]. One cannot invent what occurs naturally, one can only discover it. However, in order to be exempt from the GMO regulation and to sell its new GMOs without labelling them as such, the industry pretends that these inventions are natural.

4

TRADITION CANNOT BE NEW

The industry also argues that, if some NBTs were to be qualified as techniques producing GMOs, these GMOs should nonetheless not be subjected to the application of the GMO regulation. They should be exempted from it in the same way as products derived from "techniques of genetic modification which have conventionally been used in a number of applications and have a long safety record"[7]. However, for companies to be able to file patents on NBTs, these have to be new... So are they traditional or new?

5

GENETIC ALTERATIONS RENDERED INVISIBLE...

The industry further alleges that nothing distinguishes its new genetically modified plants from plants that already exist or that are derived from conventional non-GM processes. To this end, in its patents it only describes part of the alterations caused by the process, or even only just the new produced protein. It names this description "genetic information" in order to be able to patent it. Before doing so, it took care not to give any indication that could differentiate it from genetic sequences and proteins that are either natural or derived from non-patentable traditional breeding techniques. However, it is quite possible with precise genome analysis techniques to differentiate between plants derived from these new techniques and plants that are either natural or derived from conventional non-GM processes.

6

...IN ORDER TO HIDE HEALTH AND ENVIRONMENTAL RISKS...

In this case, we do not have the hindsight knowledge to guarantee safety on the basis of "a long safety record".[8] As with transgenic GMOs, unpredictable alterations that are not visible without an assessment could lead to health or environmental risks, or provoke the emergence of toxic substances or the deletion of substances essential to the health of the modified

4 The milk, meat and eggs produced by these animals are not labelled as GMOs, and neither is the honey imported from countries where bees collect pollen in GMO fields.

5 Definition of the biotechnologies that produce GMOs from the Cartagena Protocol, the only international convention that specifically aims to regulate GMOs.

6 Definition of non-patentable "essentially biological processes" according to the European Directive 98/44.

7 Considering Article 17 of the European Directive 2001/18.

8 *Ibid*

plant or consumers. These risks are all the more significant since it is impossible to retrieve GMOs that have been disseminated in the environment, nor to control the flow of genes, pollens and seeds that have been genetically modified by the wind, insects, agricultural tools, transport and so forth. Contamination of other crops, wild plants and genetic resources is inevitable. These risks require a pre-release assessment and, in the case of authorization: labelling, traceability and post-marketing monitoring. However, the industry wants its new GMOs to escape all these precautions. It is also asking to change the European regulation concerning the production process and therefore dealing with all these possible unintended effects, in order to bring it in line with US regulation based on "substantial equivalence", which ignores the process and is only concerned with the final product. It does not take into consideration the whole marketed plant, which may highlight possible unintended effects resulting from the process, but only focuses on the new genetic trait claimed by the breeder, who has carefully delineated it in such a manner to conceal any element that may be suspected of causing health or environmental risks.

7

...AND TO PATENT ALL EXISTING SEEDS

This lack of distinction also enables the industry to claim the industrial property of all cultivated plants carrying "genetic information" similar to the one described in its patents. Naturally occurring traits or those obtained through the use of traditional non-GM breeding processes are all concerned here, should this feature not have been previously claimed. All the seeds selected and preserved to this day by past and present generations of peasants and smallholders are thus threatened by the appropriation scheme of the biopiracy patents lurking behind these new techniques of genetic modification. Seeds stored in gene banks and those that have been produced more recently by peasants or small specialist breeders are in similar jeopardy.

8

AND YET, TRANSPARENCY AND TRACEABILITY ARE SIMPLE

In case of a genuine technical difficulty to distinguish a product derived from NBTs (contradictory analyses, cost, etc), there is a very simple solution: apply to it the GMO regulation which imposes strict traceability to all products derived from these techniques. If the product is not labelled, traceable, or distinct in any way from a naturally occurring product or a product derived from a conventional process, the patent holder should not be able to claim any right of property.

9

DISAPPEARANCE OF SMALL AND MEDIUM-SIZED COMPANIES

The industry claims that NBTs only accelerate traditional breeding methods in order to gain competitiveness. In addition to the possible unintended effects that cannot result from traditional techniques, biotech labs want to keep quiet on the costs of these "gains in competitiveness": massive public research investments paid by the taxpayer, and available to the very large industrial groups that have the financial means to develop them. Indeed, small companies cannot finance the equipment and genetic engineering work necessary for the development of these new GMOs. As NBTs develop, small companies can no longer breed new plants without becoming dependent on the patents of the very large firms that take them over, one after the other. Today, only 10 companies share 75% of the world seed market and three of them more than half of it.

10

SUPPRESSION OF THE RIGHTS OF FARMERS AND PEASANTS OVER THEIR SEEDS

In countries where GM plants are allowed, they contaminate all the non-GM crops. Peasants are being sued because they unknowingly reproduce patented genes. Fifteen years after their generalisation, patented GMOs have invaded more than 95% of the maize, soybean, rape or cotton acreages cultivated in North America. Just like small seed companies, peasants and family farmers see their seeds fall under the control of multinational patents. They thus lose the right to use or exchange their seeds and are obligated to buy GM seeds every year.

11

FURTHER REDUCE CULTIVATED BIODIVERSITY

Cultivated biodiversity has already been deeply eroded[9] by half a century of green revolutions that have replaced millions of local peasant varieties with a few thousand "improved" industrial varieties. With the generalisation of genetic engineering, a few hundred patented genes are invading all the crops of the planet .

12

CONTROL OF PEOPLE THROUGH THE CONTROL OF THEIR FOOD

If we let the legacy of several millennia of peasant selection disappear from the fields and be reduced to a few huge patented gene banks, peasants and smallholders will no longer be able to adapt their crops to climate change and future generations will not be able to feed themselves autonomously. The right to food, and the food sovereignty and security of peoples would escape any form of public control, and would instead be subjected to the sole will of the shareholders of a handful of multinationals corporations.

Demonstration against Biopiracy at the 2015 Paris Agricultural Fair

Photo © - DR

9 Disappearance of 75% of cultivated biodiversity according to the FAO.

NEW GMOs SHOULD NOT BE EXEMPT FROM REGULATION

GMO regulation has to be reinforced. So far, European regulation on GM cultivation has stalled the production of most GM crops in Europe - a stance sustained by scientific research showing the risk GMOs pose to public health, the environment and existing agrarian systems. On the opposite end however, industry-funded scientists have rejected these conclusions and triggered intense skepticism and controversy that have pushed EU legislators to allow the extensive import of GMOs for animal feed.

European peasants and smallholders find that animals fed with these GMOs live shorter lives, and suffer from declining fertility and an increasing deterioration of their vitality. However, no scientific study has been carried out to investigate the possible direct links between GMOs and the associated pesticide residues consumed by their livestock. Breeders no longer have the choice: GMO-free foods are too expensive and are no longer available from most suppliers. Only a few sectors, such as organic farming and certain quality designations, manage to maintain GMO-free commercial niches by adding sufficient value to their product to defray the additional cost of the protection measures against GMO contamination.

However, if GM plants issued from NBTs were in turn not labelled, it would be impossible to develop GM-free and organic sectors, not only for animals but also for plants. All our food would be GMO-infested and would fall under the control of a few multinationals corporations.
This attempt to introduce new GMOs in Europe constitutes an attack on peasants' rights and the right to food. Biotech companies want to use Europe as a testing ground for these new GMOs. They anticipate that countries from other continents will adapt their domestic legislation to EU law. Europeans must reject these new GMOs, not only for themselves, but for all peoples of the world.

Mobilisation of the European Coordination Via Campesina in Bilbao in 2017.

Photo: CC Antoine Tifine - ECVC

Now is the time to act in every country, to call upon every government, all Members of the European Parliament and the Commission so that:

- GMO regulation is applied to all new GMOs;
- their assessment is strengthened and freed from scientists linked to the industry;
- products from animals fed on GM feed are labelled;
- any patent on plants, animals, or their genetic parts or components, is prohibited.

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