

# PROTECT AGROBIODIVERSITY AGAINST PATENTS ON CONVENTIONALLY-BRED SEEDS!

Patents on plant and animal varieties and conventional breeding methods are prohibited in Europe. Patents can only be granted if a trait is directly inserted into the genome via genetic engineering. However, industry wants patents to be granted on plants and animals, even if they are not obtained from genetic engineering.

Conventional breeding will be affected by these patents. The EU has to stop these developments. The entire spectrum of biological diversity must continue to be available for future conventional breeding. As long as patents on plants and animals are not completely banned, patents must be strictly limited to genetic engineering



methods. Ensure that European patent laws are correctly interpreted! Make it clear: patents on plants and animals are not permitted if they are obtained from crossing, selection, random mutagenesis or spontaneous genetic changes which occur naturally.

## Patents on genetically engineered plants were first permitted in 1998

Thousands of patents on genetically engineered plants and animals have already been granted in Europe. This was authorised by the EU in 1998 in Directive 98/44/EC. However, this directive only allows patents to be granted on genetically engineered plants and animals, but not on any processes that work with random mutations. The European Patent Office subsequently adopted this EU regulation for its 39 contracting states.

#### The number of CRISPR-patents is soaring

Corporations such as Bayer and Monsanto originally introduced patenting as a way of turning their transgenic seed sectors into lucrative business models. Plants obtained from new genetic technology (NGTs) are now routinely patented, and large international corporations, such as Corteva (formerly DowDupont) and Bayer, are currently spearheading developments. As a result, medium-sized European breeders wanting to use the new technology are often forced into signing contracts with larger corporations, and thus into dependency.

# Extension of patent claims to conventional breeding

In many cases, the scope of these patents is not limited to genetically engineered plants. They often include claims on the respective genetic modifications, even if they are the result of random mutation. For example, patents were granted to Kleinwanzlebener Saatzucht (KWS) on maize obtained from conventional breeding and then 're-engineered' with CRISPR/Cas. This is a way for companies like KWS to control access to biodiversity without the involvement of genetic engineering. The EPO has already granted several hundred patents on conventionally-bred plants, despite the fact that these are not allowed in Europe. Therefore, in 2017, the EU attempted to stop this practice. But meanwhile patents on plants impact around 1.400 conventionally-bred European varieties.

#### Save European breeders' freedom!

The independence of traditional breeders in Europe must be maintained. Their access to biological diversity must not be controlled, hindered or blocked by patents, particularly in the face of climate change and the loss in agrobiodiversity. Therefore, patents on processes based on crossing, selection, the use of natural genetic variations or random mutagenesis must be prohibited. As long as patents are granted on plants and animals, they have to be restricted to those that are genetically engineered.

#### Austria is leading the way: No patents on conventionally-bred seeds!

In Austria, the legislator has already successfully amended national patent law and limited patents to genetically engineered seeds. According to the Austrian Patent Act, patents are not permitted if they are "based on natural phenomena such as crossing, selection, non-targeted mutagenesis or random genetic modifications occurring in nature." For these regulations to become effective at the European level, the EU in particular would now have to clarify that only genetically modified plants can be patented, but not conventionally-bred plants and animals (including random mutagenesis). Many more politicians now seem to be ready to take action. Both the EU parliament and EU member states are aware of this growing problem, and their willingness to act is increasing.

# How to proceed with patents on NGT plants?

Some stakeholders are implying that the EU could ban patents on genetically engineered seeds in an attempt to increase the acceptance of genetic engineering in agriculture. Thus, creating the impression that if NGT plants are exempt from regulation they would no longer be patented. However, this is incorrect. Genetic engineering regulation has nothing to do with patent law. NGT plants are patentable in the EU, even if they do not have to be tested for risks. All 39 contracting states of the European Patent Office (EPO) would have to agree before patents on genetically engineered plants were actually banned. Unanimity would be required to amend the existing laws. This route is being blocked by industry, patent attorneys and several EPO contracting states. However, the EU could give a strong signal by officially demanding a diplomatic conference to completely prohibit patents on plants and animals by the international treaty of the European Patent Convention.

## The EU can ensure that existing prohibitions are interpreted correctly

In regard to plants that are not genetically engineered, the EU can follow a similar path to Austria and prevent patented genetic engineering from affecting conventional breeding. This is not about changing, but about interpreting the existing laws. A majority of three-quarters of the vote in the Administrative Council of the EPO would be sufficient. The EU could already bring about 27 of the 30 votes needed for a majority. A first step could be to clarify the text of the EU patent directive 98/44 to unambiguously exclude all patents on plants and animals that are not genetically engineered.

## Corporations want patents in order to control conventional breeding

An initiative to ban patents on conventional breeding would be extremely urgent: if there is no clear and legally secure interpretation of the prohibitions, corporations, such as Bayer and Corteva, BASF and Syngenta, will soon be able to control all seeds – produced with or without genetic engineering.