

President of the European Patent Office gives green light for patents on plants and animals

Patent office ignores the position of the European Parliament

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#### Content

Summary	3
1. Introduction	4
2. Granting of new patents on plants imminent	5
3. The President of the EPO: backing big industry	6
4. A slap in the face of the European Parliament	8
5. Consequences for breeders, farmers and consumers	9
6. Some demands	II

# Imprint

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#### Summary

The European Patent Office (EPO) is once again rushing patents on plants derived from conventional breeding through the application procedure. In the coming weeks, around a dozen new patents will be granted, covering species such as broccoli, onions, melons, lettuce and cucumber. This is in strong contrast to EPO practice last year when only very few patents were granted due to a pending precedent decision on the patentability of plants and animals (G2/12). This decision has still not been made. The granting of further patents on plants derived from conventional breeding is also a setback for the European Parliament, which in May 2012 called upon the EPO to stop these patents because they contravened current European Patent legislation.

Apparently, this new development in patenting has been heavily influenced by the opinion of the President of the EPO, Mr Benoît Battistelli, who recently gave a clear statement in favour of such patents, thus clearly backing the interests of companies such as Monsanto and Syngenta. If Battistelli's interpretation of current patent law goes ahead in this form, it will render meaningless the prohibition of patents on plant and animal varieties as well as on conventional breeding.

By taking up this extreme position on patents on plants, Battistelli is acting against the interests of the majority of European plant breeders, the European farmers organisations and many other organisations active for developing countries, the environment and the interests of the consumers.

The organisations behind the coalition of "No Patents on Seeds" are extremely concerned because, for example, Monsanto and Syngenta already own more than 50% of seed varieties of tomato, paprika and cauliflower registered in the EU. There are concerns that patents on seeds will foster further market concentration and make food supply ever more dependent on just a few big international companies.

No Patents on Seeds is demanding a stop to the patenting of plants and animals, legal revision of European Patent laws to exclude patents on plants and animals.

### 1. Introduction

Patents on life have been a controversial issue in Europe for more than 20 years. The first patents on genetically engineered plants and animals were granted in the 1980s. Since the year 2000, there have been more and more patents granted on plants and animals derived from conventional breeding. Presently, there are around a 100 such patents on plants, and around 1000 applications have been filed.

The European Patent Convention (EPC) patent laws exclude patents on methods for conventional breeding ( essentially biological processes for the production of plants or animals ). In 2010, the European Patent Office (EPO) stopped granting such patents on the grounds of a decision made by the Enlarged Board of Appeal (decision G1/08), which is the highest legal decision making body of the EPO.

However, this decision only concerns patents on processes for breeding, but not the products derived from these breeding products. Therefore, another case on a tomato was brought before the Enlarged Board of Appeal (G2/12) in 2011 concerning patents on products such as plants, seeds and fruits derived from conventional breeding.

Surprisingly, as recent research shows, a whole series of new patents on plants will be granted in 2013. Whilst in the past, pending decisions at the Enlarged Board of Appeal were very often a reason to postpone further decision making on patents, it appears that the expected decision at the Enlarged Board (G2/12) has now become irrelevant – the interests of Monsanto, Syngenta & Co have become predominant at the EPO.



Photo: Public demonstration outside the EPO in November 2012

## 2. Granting of new patents on plants imminent

Around a dozen new patents that will be granted very soon on plants derived from conventional breeding, these include cucumber, lettuce, capsicum, onions, broccoli, rucola (salad rocket), sunflower and melons. The Examining Division at the EPO has very recently sent out letters to the applicants intimating that these patents will be granted shortly (procedure according to Rule 71 (3) of the EPC). The only detail missing is a response from the companies concerned and some payment – no further legal examination is necessary.

In most cases, these patents cover the plants, seeds and the harvest such as fruits and grains. The plants are derived from conventional breeding using methods such as gene diagnosis (called ,marker assisted selection'). The processes for breeding these plants are not regarded as patentable because they are "essentially biological". However, the plants, seeds and fruits are considered to be inventions. The first one of these patents (EP 1931193) on a cucumber with longer shelf life was granted on 27 February 2013. Two other patents on salad and cucumber are expected to follow on 13 March 2013.

While the patenting of plants and animals derived from conventional breeding was never completely stopped at the EPO, the procedures at the Enlarged Board of Appeal seemed to have a significant impact on the granting of patents on plants derived from methods such as marker-assisted selection (also called SMART Breeding). In 2012, we identified only three patents that were granted on plants and seeds that did not involve genetic engineering, while in 2013 we have already identified around a dozen patents where an announcement has been made that they will be granted.

The new decision- making policy at the EPO will inevitably lead to a rise in patents on animals since plants and animals are regulated by the same paragraph of the European Patent Convention (EPC), Art 53(b).

Number of patent	Company	Content	Breeding method/ plants´ characteristics	Publication of the date of intention to grant the patent
EP 2240598	Enza Zaden	Cucumber plant, virus resistance	Marker assisted selection	08.08.2012 (13.03.2013)*
EP1727905	Carlsberg	Barley, disease resistance	Mutagenesis	24.08.2012
EP 1973396	Rijk Zwaan	Lettuce plant	Observing discoloration at wound surface	27.08.2012 (13.03.2013)*
EP 1261252	Dupont	Sunflower, herbicide resistance	Mutagenesis	03.10.2012

Table: Some patents on plants expected to be granted by the EPO in the coming weeks

EP 1931193	Enza Zaden	Cucumis sativus with longer shelf live	Marker assisted selection	24.10.2012 (27.02.2013)*
EP 1804571	Monsanto	Capsicum plant with virus resistance	Marker assisted selection	16.11.2012
EP 2061303	Syngenta	Rucola with male sterility	Marker assisted selection	16.11.2012
EP 2140023	Syngenta	Capsicum plant with pest insect resistance	Marker assisted selection	04.12.2012
EP 1503621	Syngenta	Seedless watermelons	Hybrid crossing	09.01.2013
EP 1597965	Seminis/ Monsanto	Broccoli with bigger head size for mechanical harvest Hybrid crossing	Hybrid crossing	14.01.2013
EP2244554	Nunhems/ Bayer	Onions, lower pungency, longer storage	measuring compounds	17.01.2013

\* Date of final grant if known

#### 3. The President of the EPO: backing big industry

Normally a pending case if front of the Enlarged Board of Appeal has effects on the further grants of new patents which will be affected by the upcoming decision. The President of the EPO can request that the examiners take into account a pending precedent case that will influence the outcome of the examination. As the experience from last years show, this was done in many other cases. However in the case of the pending case Go2/12 it looks like the President has already given green light for patents on conventional breeding although the case is not yet decided. While indeed only very few patents were granted on plants derived from conventional breeding last year, now the EPO is about to grant a dozen patents just in a few weeks.

There is no doubt about the opinion of the President in this context. Very recently, Mr Battistelli made an official statement in favour of patents on plants and animals. In a letter on the Go2/12 case sent to the Enlarged Board of Appeal of the EPO, he made an extreme statement contradicting the wording of European Patent Law. He stated that Article 53(b) of the European Patent Convention (EPC) would not be in conflict with granting patents on plants: "(...) Article 53(b) does not have a negative effect on the allowability of product claims to plants." However, the wording of Art 53(b) prohibits patents on plant and animal varieties as well as patents on the conventional breeding of plants and animals. If Battistelli's interpretation of current patent law is applied, the prohibition of patents on plant and animal varieties as well as on conventional breeding would become meaningless.



**The wording of Article 53 (b):** *"European patents shall not be granted in respect of: plant or animal varieties or essentially biological processes for the production of plants or animals (...)"* 

**Mr. Benoît Battistelli:** "(...) Article 53(b) does not have a negative effect on the allowability of product claims to plants."

Photo: Mr Benoît Battistelli, EPO

Similarly to Mr Battestelli, companies such as Monsanto, Syngenta, Dupont and Bayer believe that plants, seeds and fruits derived from conventional breeding are patentable. By making this kind of statement, Mr Battistelli is taking up a position biased in favour of these agrochemical companies, which already control large parts of the international seed market. Just ten companies own around 75% of the international seed market1. The three biggest companies, Monsanto, DuPont and Syngenta already control 50 percent of the commercial global seed market.

At the same time, he is in conflict with the position of

- the majority of European plant breeders (such as European Seed Association, the Dutch organisation, Plantum, the French plant breeders and the German breeders association, BDP),
- the European farmers organisations (such as the European farmers organisation COPA, the Coordination Paysanne Europeenne Via Campesina, the Federation of Organic Agriculture movements in Europe IFOAM EU, the German Farmers Organisation DBV, the German dairy farmers association, the Spanish Farmers Organisation COAG and the Italian organisation Coldiretti),
- many other organisations active for developing countries, the environment and the interests of the consumers.

I ETC Group (2011) Who will control the Green Economy? http://www.etcgroup.org/content/who-will-controlgreen-economy-0

# 4. A slap in the face of the European Parliament

In 2012, the European Parliament and the German Bundestag adopted resolutions urging the EPO to stop granting patents on plants and animals derived from conventional breeding. In its resolution of 10 May 2012 "on the patenting of essential biological processes"<sup>2</sup> the European Parliament "calls on the EPO also to exclude from patenting products derived from conventional breeding and all conventional breeding methods, including SMART breeding (precision breeding) and breeding material used for conventional breeding".



The European Parliament "calls on the EPO also to exclude from patenting products derived from conventional breeding and all conventional breeding methods, including SMART breeding (precision breeding) and breeding material used for conventional breeding".

Photo: Martin Schulz, the President of the European Parliament (3rd from the right) received 70.000 signatures against patents on plants and animals in September 2012.

The European Patent Organisation is a separate intergovernmental institution with 38 Member States and is not part of the EU. Nevertheless, the European Parliament is decisive for the patentability of plants and animals because these are granted on the basis of a EU Directive ("Legal Protection of bio-technological inventions" 98/44 EC) which was adopted by the European Parliament in 1998.

In a decision taken by the Administrative Council of the EPO in 1999, the Directive was adopted as a part of the Implementation Regulation of the European Patent Convention. The Directive also prohibits patents on plant or animal varieties or on the conventional breeding of plants or animals. However, there are several exceptions allowed. As a result, there are a number of grey areas in regard to patents on plants and animals.

In its resolution of May 2012, the European Parliament for the first time gave a clear interpretation of the Directive to prohibit patents on plants and animals derived from conventional breeding. Mr Battistelli and the EPO have completely ignored this European Parliament resolution, which in essence should be considered as a binding interpretation of the EU Directive.

<sup>2</sup> http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2012-0202+0+DOC+XML+V0//EN)

## 5. Consequences for breeders, farmers and consumers

In Europe, increasing numbers of patent applications on plants are being filed. Over 2,000 patents have already been granted on plants – most of which have been genetically engineered. However, the share of patent applications for conventional plants has also been increasing for several years now.

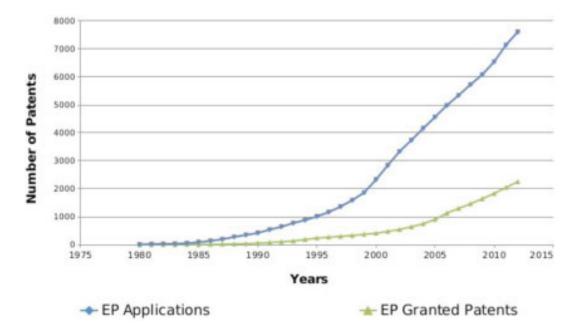


Diagram: Number of patents on plants (with and without genetic engineering) applied and granted at the EPO (accumulated).

Patents on plants and animals interrupt the process of innovation in breeding, block access to essential plant and animal genetic resources and impede farmer's activity and freedom of choice.

Furthermore, they foster market concentration, hamper competition, and serve to promote unjust monopoly rights. Such patents have nothing to do with the traditional understanding of patent law, or with giving fair rewards and incentives for innovation and inventions. Based largely on trivial technical features, such patents abuse patent law, using it as a tool of misappropriation (in effect biopiracy) that turns agricultural resources needed for daily food production into the intellectual property of some big companies.



Patented food products that are already on the market. For example a patented broccoli introduced in UK as "Beneforte" by Monsanto (EP 1069819) in 2011.

A report published in 2012<sup>3</sup> by Swiss organisations revealed an alarming situation in the EU vegetable seed sector. According to the report, Monsanto already owns 36% of the tomato seed varieties registered with the Plant Variety Office of the EU, as well as 32% of the paprika (sweet pepper) varieties and 49% of the cauliflower varieties. A second big vegetable company, Syngenta, owns 26% of the tomato varieties, 24% of the paprika (sweet pepper) varieties and 22% of the cauliflower varieties. Together Monsanto and Syngenta already own more than 50% of the varieties of these three vegetables.

Many the recent patent applications are for vegetables – it is highly likely that especially these patents will have an impact on the food market. The granting of patents on plants and animals will increase prices of food, restrict the choice of farmers and consumers and hamper improvements in achieving better food crops.

<sup>3</sup> http://www.evb.ch/cm\_data/Saatgutmarkt\_Juni\_2012.pdf

### 6. Some demands

Just like the banking system, the EPO and the current patent system have proved themselves unable to self-regulate. The EPO is not subject to independent courts. At the same time, the EPO generates considerable revenue from patent examination and procedural fees - in 2011 it was about € 1 391 816 000. As such, it appears that industry is the client being served by the EPO. Staff at the EPO and patent attorneys all benefit from the "patent industry" that produces patents and earns money from granting and opposing patents. President Battistelli even introduced a bonus for the EPO staff, including examiners, to distribute their profit. A good incentive to grant as many patents as possible.

In the light of these observations, it is absolutely crucial that the interests of society are safeguarded by politics. There are several political instruments that can be used to control the EPO, and make sure that especially the interests of farmers, breeders and consumers are no longer disregarded:

- The European Patent Convention (EPC), which is the legal basis for the European Patent Office, should be changed to exclude plants and animals and parts thereof. For this purpose, a diplomatic conference should be requested by the member states of the EPO.
- 2. To eliminate the many grey areas in current European patent law, the European Patent Directive 98/44 should be changed so that it excludes patents on plants and animals and parts thereof.
- 3. The Administrative Council of the EPO, which is the body representing the member states of the EPO, should change the wording of the Implementation Regulation in a way that is in accordance with the resolution of the EU Parliament to prohibit patents on conventional breeding in plants and animals.
- 4. A full comprehensive breeders exemption and the respect of farmers rights should be established in the EU patent law.

