



Safeguard the patent-free zone of classical plant breeding in Europe!

Patents granted by the European Patent Office put pressure on politics

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No Patents on Seeds: Who we are



Overview: Patent applied and granted in the context of plant breeding

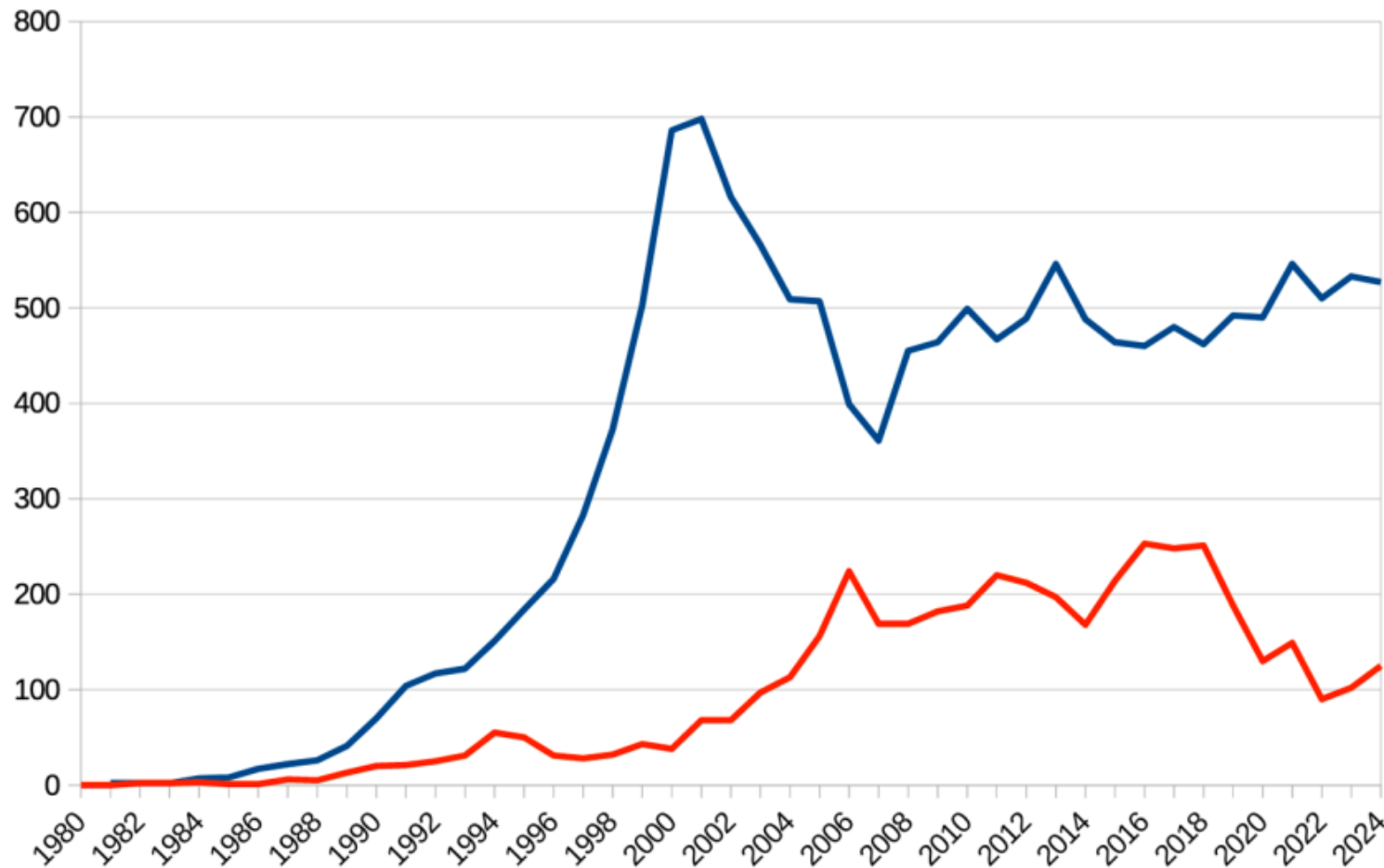


Figure 1: Number of all patent applications filed for plants under PCT/WIPO (upper line) and patents on plants granted by the EPO (lower line) per year. Research according to official classifications (IPC A01H or C12N15/82). Research conducted in Global Patent Index database.

Source: www.kein-patent-auf-leben.de/patentdatenbank

Much more patents in the context of classical breeding if compared to NGTs

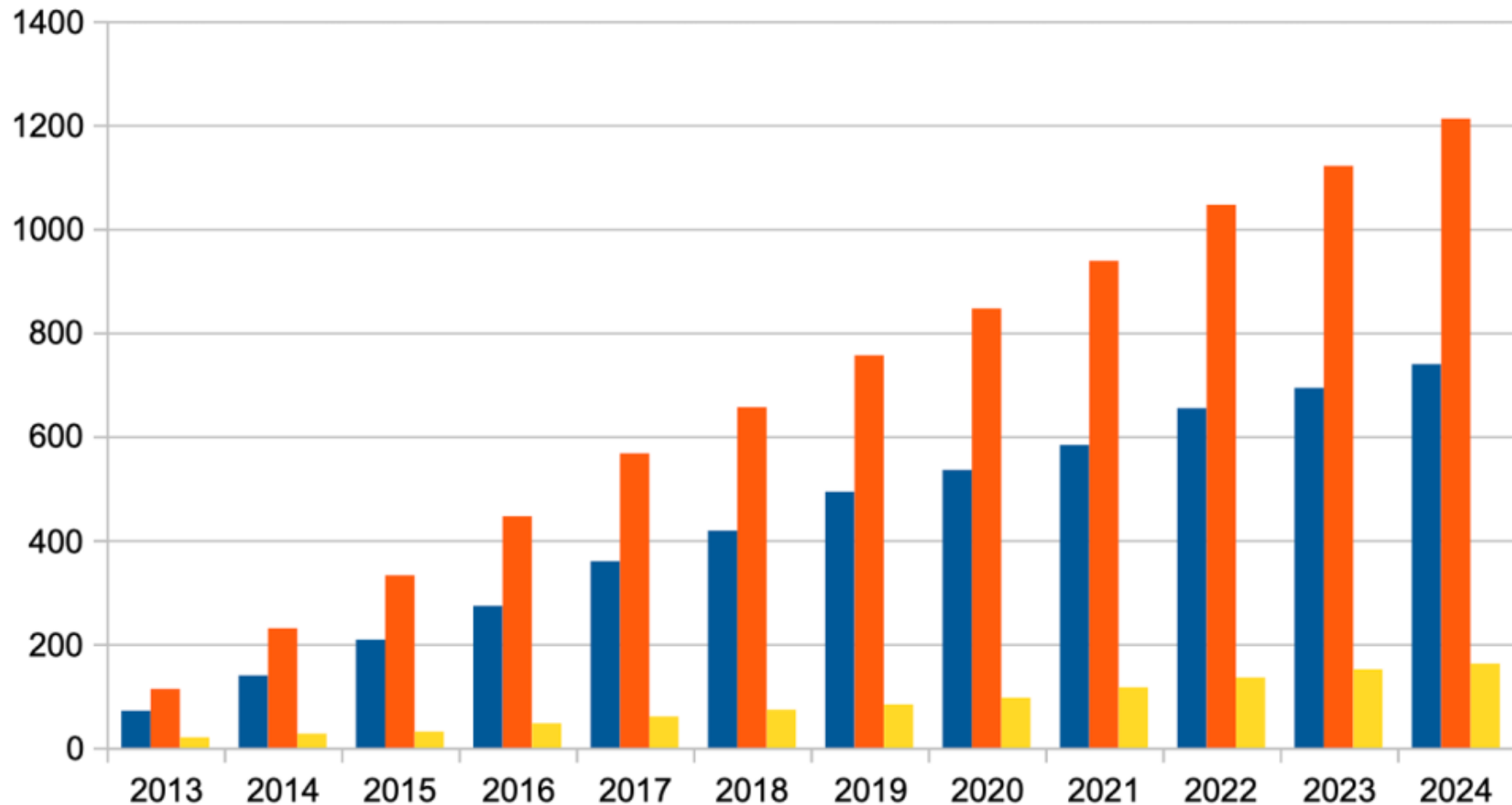


Figure 3: Number of patent applications on plants obtained from classical breeding (first column, blue) or patent applications that concern classical breeding and in addition also genetic engineering (second column, red) in comparison to patents filed on NGT plants (third column, yellow), accumulated from 2013-2024. All applications filed under PCT/WIPO. Research according to official classifications (IPC A01H or C12N15/82). Research conducted in Global Patent Index database. Source: www.kein-patent-auf-leben.de/patentdatenbank/ and further research of *No Patents on Seeds!*.

New patent cases, new legal uncertainties



(11) **EP 3 911 147 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

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C07K 14/415 ^(2006.01) **C12Q 1/6895** ^(2018.01)

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C12Q 1/6895; C12Q 2600/13; C12Q 2600/156

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(54) **TOMATO PLANT RESISTANT TO TOMATO BROWN RUGOSE FRUIT VIRUS**

GEGEN JORDAN-VIRUS RESISTENTE TOMATENPFLANZE

PLANT DE TOMATE RÉSISTANT AU VIRUS DU FRUIT RUGUEUX BRUN DE TOMATE

“TOMATO PLANT RESISTANT TO TOMATO BROWN RUGOSE FRUIT VIRUS”, EP 3 911 147 B1

From the description:

[0029] Disclosed herein is a method for providing a plant of the *S. lycopersicum* species that is resistant to Tobamovirus, wherein the method comprises the steps of;

- a) **selecting** a *S. habrochaites* plant that is resistant to Tobamovirus, wherein said selection comprises establishing the presence of the resistance gene or genomic sequence of present invention,
- b) **transferring** the identified genomic sequence or locus of step a) into a *S. lycopersicum* plant thereby conferring Tobamovirus resistance to said *S. lycopersicum* plant.

Transferring can be done by **crossing the selected *S. habrochaites* plant with a *S. lycopersicum***. Subsequently, a Tobamovirus resistant *S. lycopersicum* plant can be **selected**.

“TOMATO PLANT RESISTANT TO TOMATO BROWN RUGOSE FRUIT VIRUS”, EP 3 911 147 B1

From the claims:

1. Resistance gene for providing resistance to a Tobamovirus in a *S. lycopersicum* plant wherein said resistance gene is represented by a coding sequence having at least 95% nucleotide sequence identity with SEQ ID No.115, wherein the Tobamovirus is TBRFV.

“TOMATO PLANT RESISTANT TO TOMATO BROWN RUGOSE FRUIT VIRUS”, EP 3 911 147 B1

Open questions:

What is the legal effect if a ,coding sequence‘ is claimed to represent the natural resistance?

Can the wild species *Solanum habrochaites* still be used for breeding resistance if the gene sequence is not used for selection?

Can the conventionally bred varieties from Enza Zaden still be freely used for further breeding (under PVP law)?

Is this patent in line with the intention of the legislator that wanted to prevent patents on plants obtained from crossing and selection?

The correct interpretation of European Patent law ?

The EU patent directive 'Legal Protection of Biotechnological Inventions, 98/44/EC', for the first time in Europe, allowed patents to be granted on genetically engineered plants.

The directive 98/44/EC was integrated into the Implementing Regulations of the European Patent Convention (EPC) which is binding for the European Patent Office (EPO).

The exemption from the prohibition

While the prohibitions outlined in Article 53 b), EPC, remain in force, legislators introduced an exemption to this prohibition in paragraph (2). Article 4 (1) and (2) of the EU patent directive reads:

“1. The following shall not be patentable:

(a) Plant and animal varieties;

(b) Essentially biological processes for the production of plants or animals.

2. Inventions which concern plants or animals shall be patentable if the technical feasibility of the invention is not confined to a particular plant or animal variety. (...).”

A new proposal to solve the problem

Based on the wording of Article 4 (2) of EU Patent Directive 98/44/EC, we propose the following clarification:

"Inventions which concern plants or animals or their genetic material shall only be patentable if the genetic material is changed directly and in a targeted way, and to an extent previously not available for breeding, and if the technical feasibility of the invention is not confined to a particular plant or animal variety."

The new proposal follows the logic of the EU patent directive

The general line:

The clarification follows the logic and the intention of the EU Patent Directive 98/44/EC to define certain technical inventions that are exempted from the prohibitions in Article 53 b) and therefore may enjoy patent protection. These criteria need further definition. 'The rest' would remain being non-patentable.

The new proposal follows the logic of the EU patent directive

The proposal is supposed to solve several problems:

- › It should safeguard access to the biological material needed by all breeders;
- › It only foresees a change in the interpretation of current patent law, and would therefore only require small changes in the EU patent directive 98/44 and the Implementing Regulations of the EPC;
- › It tackles the root cause of the problem (by preventing certain patents) and would not simply mitigate negative effects caused by granting seed patents;
- › Patents already granted on classical breeding could no longer be enforced in the European Courts.