

Upcoming hearings on maize & tomato patents



13 October 2026

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The patent on maize with cold tolerance

Applied:
2015

Granted:
2022

Decision of the EPO
to reject opposition:
2024

Hearing and decision
on the appeal:
20 October 2026

(19)



(11)

EP 3 380 618 B1

(12)

EUROPÄISCHE PATENTSCHRIFT

(45) Veröffentlichungstag und Bekanntmachung des
Hinweises auf die Patenterteilung:
24.08.2022 Patentblatt 2022/34

(51) Internationale Patentklassifikation (IPC):
C12N 15/82 ^(2006.01) **C12Q 1/6895** ^(2018.01)
C07K 14/415 ^(2006.01) **A01H 5/10** ^(2018.01)

(21) Anmeldenummer: **16804741.3**

(52) Gemeinsame Patentklassifikation (CPC):
C12N 15/8273; C07K 14/415

(22) Anmeldetag: **26.11.2016**

(86) Internationale Anmeldenummer:
PCT/EP2016/078920

(87) Internationale Veröffentlichungsnummer:
WO 2017/089601 (01.06.2017 Gazette 2017/22)

(54) **KÜHLETOLERANTE PFLANZE**

PLANT WITH TOLERANCE OF THE COLD

PLANTE RUSTIQUE

(84) Benannte Vertragsstaaten:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

(30) Priorität: **27.11.2015 EP 15196721**

(43) Veröffentlichungstag der Anmeldung:
03.10.2018 Patentblatt 2018/40

(73) Patentinhaber: **KWS SAAT SE & Co. KGaA
37574 Einbeck (DE)**

(56) Entgegenhaltungen:
**WO-A1-2008/034648 WO-A1-2014/160304
US-A1- 2007 044 171**

- Nino Baliashvili: "Feinkartierung eines QTL (Quantitative Trait Locus) für Kühletoleranz auf Chromosom 4 in Mais und dessen molekularbiologische und phänotypische Charakterisierung. Inaugural-Dissertation zur Erlangung des Doktorgrades der Mathematisch-Naturwissenschaftlichen Fakultät der Heinrich-Heine-Universität", , Januar 2011 (2011-01). Seiten I-V, 1-96, XP55273945,

The ‘invention’: conventional plant breeding

KWS produced the maize from pre-existing maize lines that showed higher cold tolerance and can be cultivated in climate conditions such as those in Northern Europe.

The company analysed the genomes of the plants and identified so-called marker genes (gene variants) for use in screening and selecting the desired traits.

The gene variants were introduced in other maize breeding lines by crossing and selection with the help of marker genes.

To produce the plants, genetic engineering is not necessary.

The claims of the ‘invention’

Plants inheriting the identified gene variants, regardless of whether they were induced by targeted intervention (new genetic engineering), at random or just by crossing and selection.

Also included is the use of the marker genes to screen natural / pre-existing populations.

The claims thus create a broad range of ‘monopoly’ rights, providing the patent holder with extensive and comprehensive control of biological resources needed in conventional plant breeding.

The patent on tomatoes with virus resistance

Applied:
2017

Granted:
2024

Hearing and decision
on the opposition:
22 October 2026



(11) **EP 3 629 711 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
28.08.2024 Bulletin 2024/35

(21) Application number: **18727798.3**

(22) Date of filing: **29.05.2018**

(51) International Patent Classification (IPC):
A01H 5/08 (2018.01) A01H 6/82 (2018.01)

(52) Cooperative Patent Classification (CPC):
A01H 6/825; A01H 5/08; C12Q 2600/13

(86) International application number:
PCT/EP2018/064055

(87) International publication number:
WO 2018/219941 (06.12.2018 Gazette 2018/49)

(54) **TOLERANCE IN PLANTS OF SOLANUM LYCOPERSICUM TO THE TOBAMOVIRUS TOMATO BROWN RUGOSE FRUIT VIRUS (TBRFV)**

TOLERANZ IN PFLANZEN VON SOLANUM LYCOPERSICUM GEGENÜBER DEM TOBAMOVIRUS TOMATO BROWN RUGOSE FRUIT VIRUS (TBRFV)

TOLÉRANCE CHEZ LES PLANTES DE SOLANUM LYCOPERSICUM AU TOBAMOVIRUS TBRFV (VIRUS DE FRUIT RUGUEUX BRUN DE LA TOMATE)

(84) Designated Contracting States:
**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

(30) Priority: **01.06.2017 EP 17305644**

(43) Date of publication of application:
08.04.2020 Bulletin 2020/15

(83) Declaration under Rule 32(1) EPC (expert
solution)

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(56) References cited:
WO-A1-2013/064641 US-A1- 2016 242 376

- SALEM N ET AL: "A new tobamovirus infecting tomato crops in Jordan", ARCHIVES OF VIROLOGY, SPRINGER WIEN, AT, vol. 161, no. 2, 19 November 2015 (2015-11-19), pages 503 - 506, XP035888535, ISSN: 0304-8608, [retrieved on 20151119], DOI: 10.1007/S00705-015-2677-7

The 'invention': conventional plant breeding

The Tomato Brown Rugose Fruit Virus (ToBRFV) causes symptoms like distortion of leaves and brown, wrinkly spots (rugose) on fruits. Outbreaks can be severe and leave fruit unmarketable.

Plants that did not show this symptoms **were detected** by growing conventionally bred plant (breeding lines) in the region where the virus is prevalent.

The claims of the ‘invention’

The company claims the plants (cells, propagation material, fruits) inheriting genetic variants.

Also methods for detection and growing these plants are claimed as invention.

In essence, the patent claims the use of naturally occurring gene variants for traditional plant breeding.

Because the virus is highly pathogenic, this patent may have huge implications for traditional breeders.

Legal background

Article 53 (b) of the European Patent Convention (EPC) prohibits patents on **plant varieties** and **conventional breeding** („essentially biological processes“).

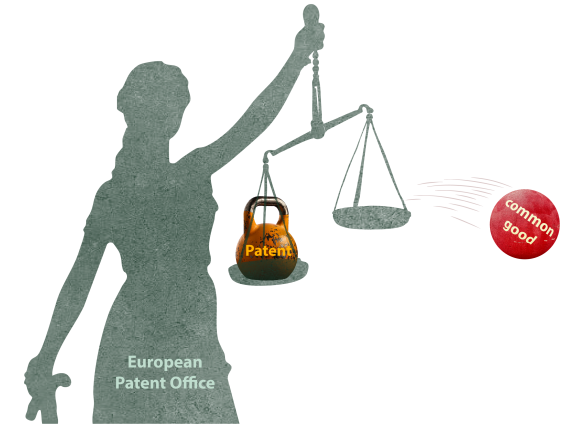
Plants which can be protected under **plant variety protection (PVP)** law cannot be patented. These plants are supposed to be freely accessible for other breeders to perform further breeding and the marketing of new varieties.

Only isolated genetic material and plants obtained by genetic engineering are considered as ‘technical inventions’ (EU Directive 98/44/EC).

Summary of grounds for opposition / appeal

- the plants were not invented but detected
- the methods to produce the plants are not technical but classical breeding
- the plants can be protected under PVP law.

Will the intention of the legislator also be ignored in future?



Rule 28 (2) was introduced in July 2017 following an EU initiative. Accordingly, plants obtained from conventional breeding cannot be patented.

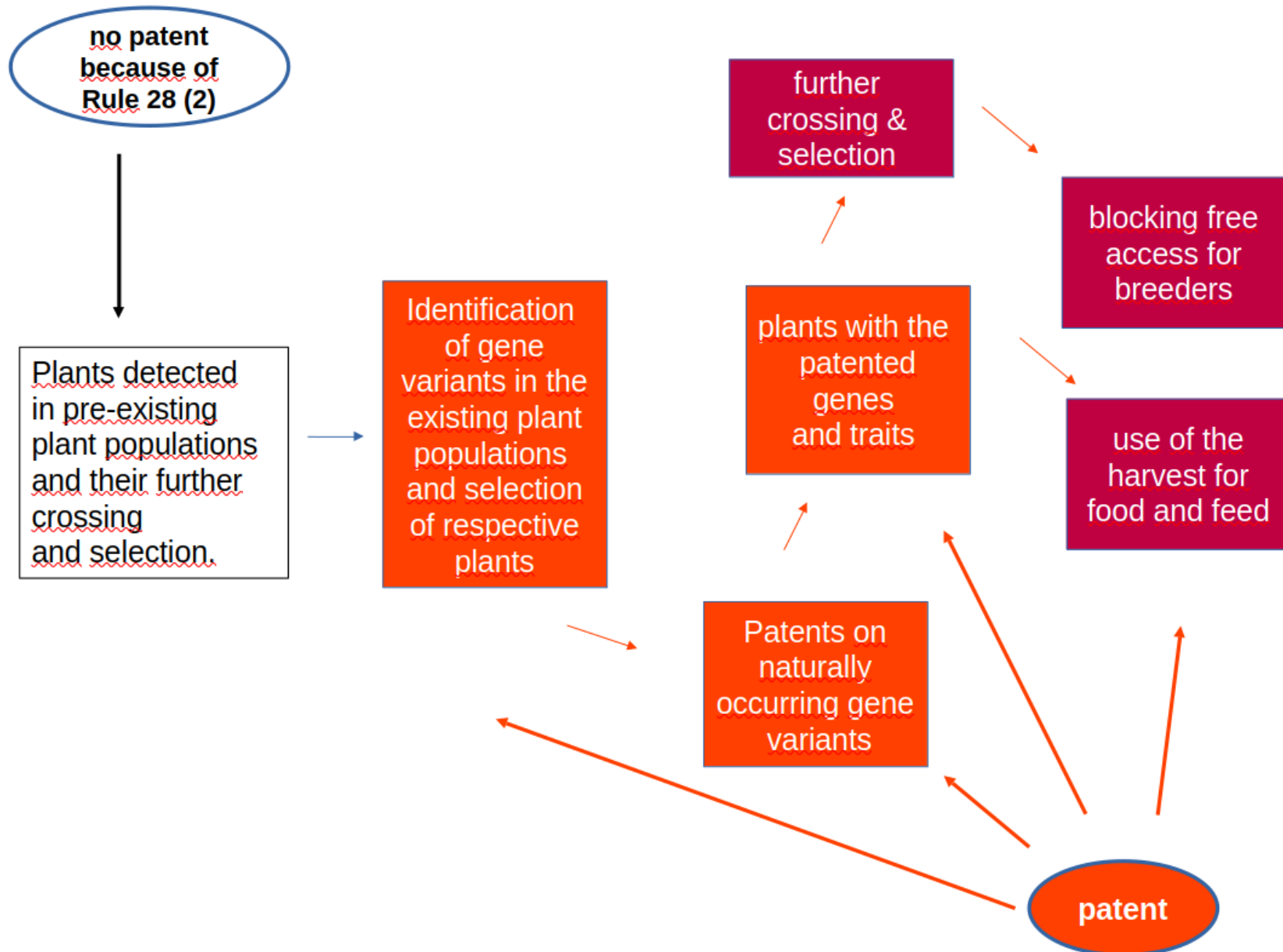
The New Rule came into force for patent applications filed after 1 July 2017.

However, as shown by our recent report, this new Rule does not deliver its intended effects. No significant changes can be observed.

With and without Rule 28 (2): patents are granted on plants obtained from crossing and selection

<u>Number, company, date of grant</u>	<u>Content of the patent</u>	<u>How rule 28 (2) is circumvented</u>
EP3560330 KWS 15.06.2022	Maize with improved digestibility was obtained through crossing and selection from existing breeding populations. Natural gene variants were used as a tool to select plants ('marker genes').	Selection / gene analysis
EP3911147 Enza Zaden 16.07.2025	Tomatoes with resistance to a plant virus (TBREY). The plants are obtained from crossings and selection with a wild tomato species.	Selection / gene analysis
EP3975697 Bejo Zaden 24.09.2025	Spinach with resistance to downy mildew. The plants are obtained from crossings and selection with a wild spinach species.	Selection / gene analysis
EP3797582 Seminis 17.12.2025	Lettuce with resistance to aphids. The plants are obtained from crossings and selection with a related species.	Selection / gene analysis
EP3797582 Enza Zaden 18.02.2026	Lettuce with resistance to downy mildew. The plants are obtained from crossings and selection with a related species.	Selection / gene analysis
EP 3512330 Rijk Zwaan 17.06.2026	<i>Cucumis melo</i> with whitefly resistance. The plants were selected from existing plant populations.	Selection / gene analysis

With and without Rule 28 (2): patents are granted on plants obtained from crossing and selection



What do we demand?

No Patents on Seeds! demands a 'patent-free zone' for traditional breeders (breeders working with plants that are not genetically engineered), farmers and food producers working with these plants.

This can be achieved by a correct interpretation or amendment of existing European patent law.