Sejet planteforædling

Fremtidens IP-beskyttelse inden for planter: UPOV eller patenter?

Birger Eriksen,
Sammenslutningen af Danske Sortsejere

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IP beskyttelse til alle formål

- Copyright
- Community trademark rights
- Community design rights
- Rights related to copyright
- National trademark rights
- National design rights
- **Patent rights**
- Geographical indications
- Rights of the creator of the topographies of a semiconductor product
- **Plant variety rights**
- Sui generis right of a database maker
- Trade names
- Utility model rights

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Hvorfor specielt beskyttelses-sytem til planteforædling?

- Plantesorter er biologisk material, der kan reproducere sig selv, og kræver derfor et effektiv beskyttelsessystem.
- Samtidig er adgang til genetisk material essentielt for en succesfuld planteforædlingsindustri (breeder's exemption)
- UPOV´s ***sui generis*** beskyttelsessystem kaldet Plant Breeder´s Rights (PBR) yder en effektiv beskyttelse tilpasset industriens specifikke krav

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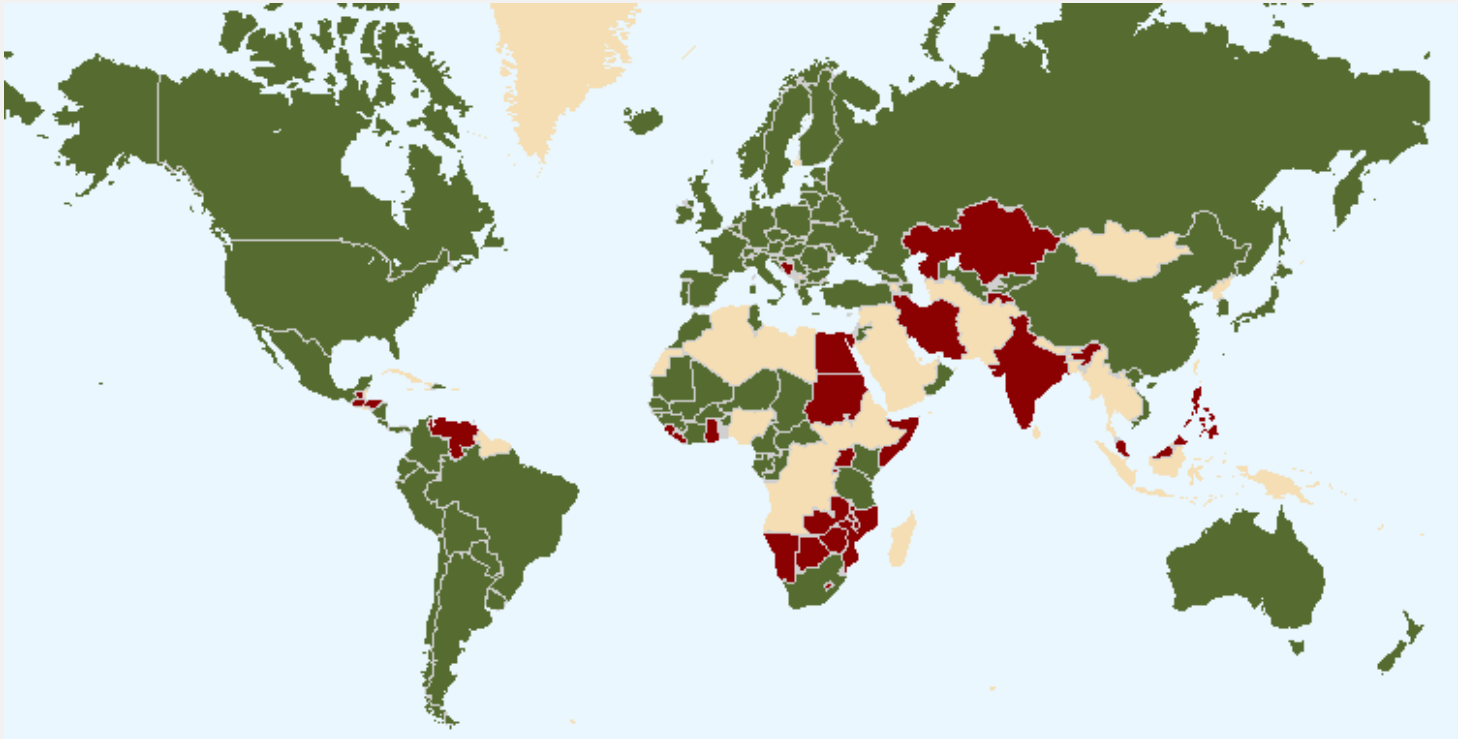
International Convention for the Protection of New Varieties of Plants
UPOV Convention (1961), as revised at Geneva (1972, 1978 and 1991)

- 74 members
- To provide and promote an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society



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Year	Titles issued	Titles in force
2009	10.730	86.484
2010	11.115	90.344
2011	10.189	95.164
2012	9.822	99.501
2013	10.052	103.261

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The scope of the breeder's right (Article 14)

The following acts in respect of the **propagating material** of the protected variety require the authorization of the breeder:

(i) production or reproduction (**multiplication**),
(ii) conditioning for the **purpose of propagation**,
(iii) **offering for sale**,
(iv) **selling or other marketing**,
(v) **exporting**,
(vi) **importing**,
(vii) **stocking** for any of the purposes mentioned above.

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- ***Exceptions to the Breeder's Right*** **(Article 15)**

- This exception, for the purpose of breeding other varieties, is a **fundamental aspect of the UPOV** system of plant variety protection and is known as the **"breeder's exemption"**.

- **Access is needed to all breeding materials in the form of modern varieties, as well as landraces and wild species, to achieve the greatest progress and is only possible if protected varieties are freely available for breeding.**

- Det er nødvendigt at have adgang til alt forædlingsmateriale i form af såvel modern sorter som landracer og vilde arter, for at opnå den højeste grad af fremdrift i forædlingen, og dette er kun muligt, hvis beskyttede sorter er **frit tilgængelige** til den videre forædling.

intellectual property rights

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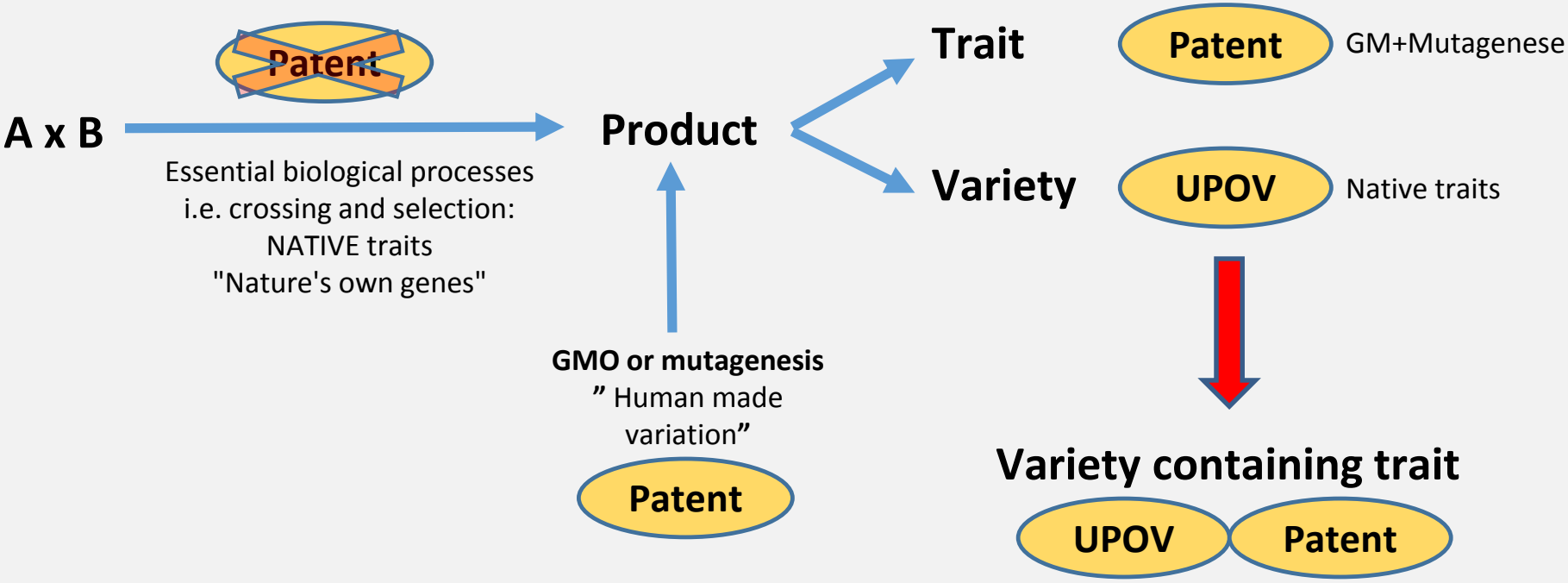

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The patent system in Europe
protection of biotechnological inventions.

- European Patent Convention
- EU Directive 98/44

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What is patent protection?

- An invention in technology allowing its holder to prevent third parties, from making, using or selling the invention in exchange for the disclosure of the invention.
- period of 20 years starting from the filing of the application.
- As all IP rights patent protection is also territorial meaning that it provides protection only on a given territory.
- The scope of a patent on an invention is determined by the so-called patent claims.

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How is patent protection obtained?

- An **invention** which may be **a process, a product or a specific use**, has to be **new, inventive** and needs an **industrial application**.
- Describe the invention in a manner which enables other persons skilled in the art to **reproduce** the invention.
- Application either to a **national patent office** or directly to the **European Patent Office** (EPO).
- Published is normally **18 months after the date of filing** = **provisional protection**
  Grant of a patent is published in its official bulletin.
  9 months following the grant a patent can be **opposed**
  Always be limited or invalidated by national **courts** if challenged.

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Patent protection for plant-related inventions

- **Plant varieties as such as well as essentially biological processes (EBP) for the production of plants are expressly excluded from patent protection.**

Artikkel 53

- Current patent system in Europe allows patent protection a specific trait that occurs in several plant varieties >Rule 27(b) EPC.

Rule 27

- Using plant varieties for further breeding and development is not generally exempted under patent laws (using the genome minus the patented gene)

No Breeder´s exemption

- However such acts are exempted under French, German and Swiss patent laws and will be exempted in the European Unitary Patent

Breeder´s exemption

Essentially biological processes?

EP 1 069 819 (T 83/05, G 2/07, broccoli):

Method for production of *Brassica oleracea*, comprising steps of crossing and selection, wherein **molecular markers** are used to identify desired hybrids

increase of the anticarcinogenic glucosinolates

EP 1 211 926 (T 1242/06, G 1/08, wrinkled tomato)

Method for breeding tomato plants that produce tomatoes with reduced fruit water content, comprising crossing and selection steps, **followed by** allowing fruit to dry partially on the vine, and screening the fruit for reduced water content

Conclusions of G 2/07 and G 1/08

- Processes for production of plants based on **sexual crossing of whole genomes** and the **subsequent selection** of plants are not patentable

- Additional technical steps performed **before or after** sexual crossing and selection, e.g. to process the plant (*tomato*) or to assist selection (*broccoli*), do not make the process patentable
  - these steps (markers, processing steps) may be patented *per se*
  - sexual crossing must not be included in claim explicitly or implicitly

- If a trait is introduced into the genome by a technical step, such as by **genetic engineering**, not by sexual crossing, the process is patentable

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Tomato/Broccoli case:

Art. 53 in the European Patent Convention it is stated that patents can not be granted for Plant Varieties and essential biologically processes

Technical Bord of Appeal = TBoA

Enlarged Board of Appeal = EBoA

TBoA → EBoA (G2/07 + G1/08) → TBoA → EBoA (G2/12 + G2/13)

* Product by process claim
* DE og NL (FR?) has national legislation that excludes

On 25 March 2015 the Enlarged Board of Appeal, as the highest 'court' of the European Patent Office, has declared that plants or seeds obtained through conventional breeding methods are patentable.

Exclusions and exceptions to patentability in EPC

- Article 52 EPC: general principle that patents granted for any inventions except for those excluded or excepted
- List of specific inventions in Article 53 EPC that are not patentable
- Two exceptions in Article 53(b):
  - first (plant/animal varieties): very narrow
  - second (EBP): hard to see why it should be broad
- Rule 27 b) EPC: inventions concerning plants patentable

No clear basis for broad interpretation of Article 53(b) EPC

- No reason from history of Article 53(b) to exclude products of EBP

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SAFEGUARD EU'S PLANT REEDERS EXEMPTION BIOTECH PATENTS MUST NOT EXTEND TO PLANT PRODUCTS FROM CLASSICIAL BREEDING / CLARIFICATION NEEDED

At its plenary session in Strasburg, the European Parliament today adopted a resolution calling upon the European Commission to work for a clarification of the scope of patentability under the EU's Biopatenting Directive (Directive 98/44).

MEPs had drafted the resolution in reaction of a recent ruling of the Enlarged Board of Appeal of the European Patent Office which in the so-called "broccoli/tomato case" first had rejected the patentability of essentially biological processes (like e.g. classical crossing and selection) but later ruled that products derived from such processes could nevertheless still be patented.

In the resolution, MEPs express their concern with this ruling and call upon the Commission to urgently "...ensure legal clarity regarding the prohibition of the patentability of products obtained from essentially biological processes and that breeding with biological material falling under the scope of a patent is permitted.".

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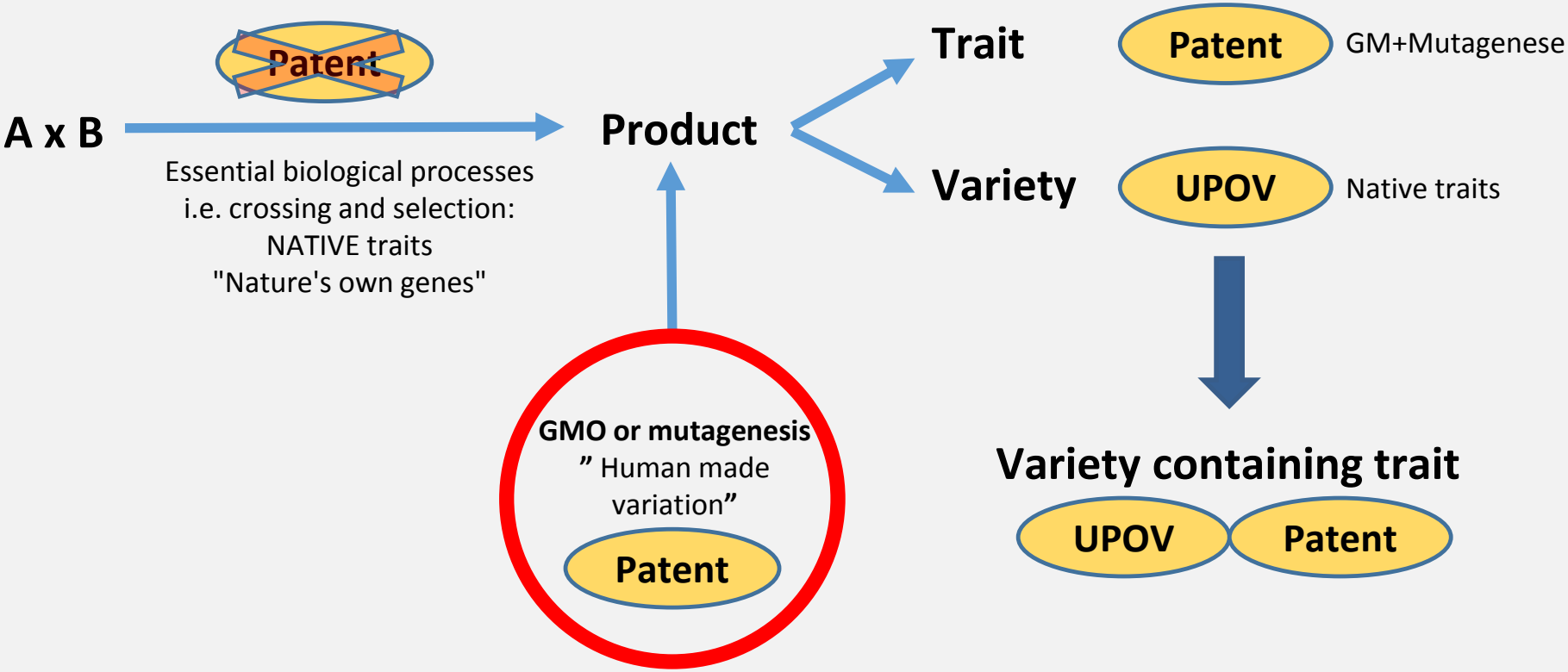

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What conditions must be met to obtain patent protection?

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There are numerous conditions:

- The invention must show an element of novelty; that is, some new characteristic which is not known in the body of existing knowledge in its technical field. This body of existing knowledge is called "prior art".

- The invention must involve an "inventive step" or "non-obvious", which means that it could not be obviously deduced by a person having ordinary skill in the relevant technical field.

- The invention must be capable of industrial application, meaning that it must be capable of being used for an industrial or business purpose beyond a mere theoretical phenomenon, or be useful.

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ESA

PINTO

Patent INformation and Transparency Online

PINTO covers plant varieties commercialized in the European Economic Area (EU and EFTA countries)

Patent information regarding the plant varieties that are included in PINTO is provided by the owners of the plant varieties on a voluntary basis.

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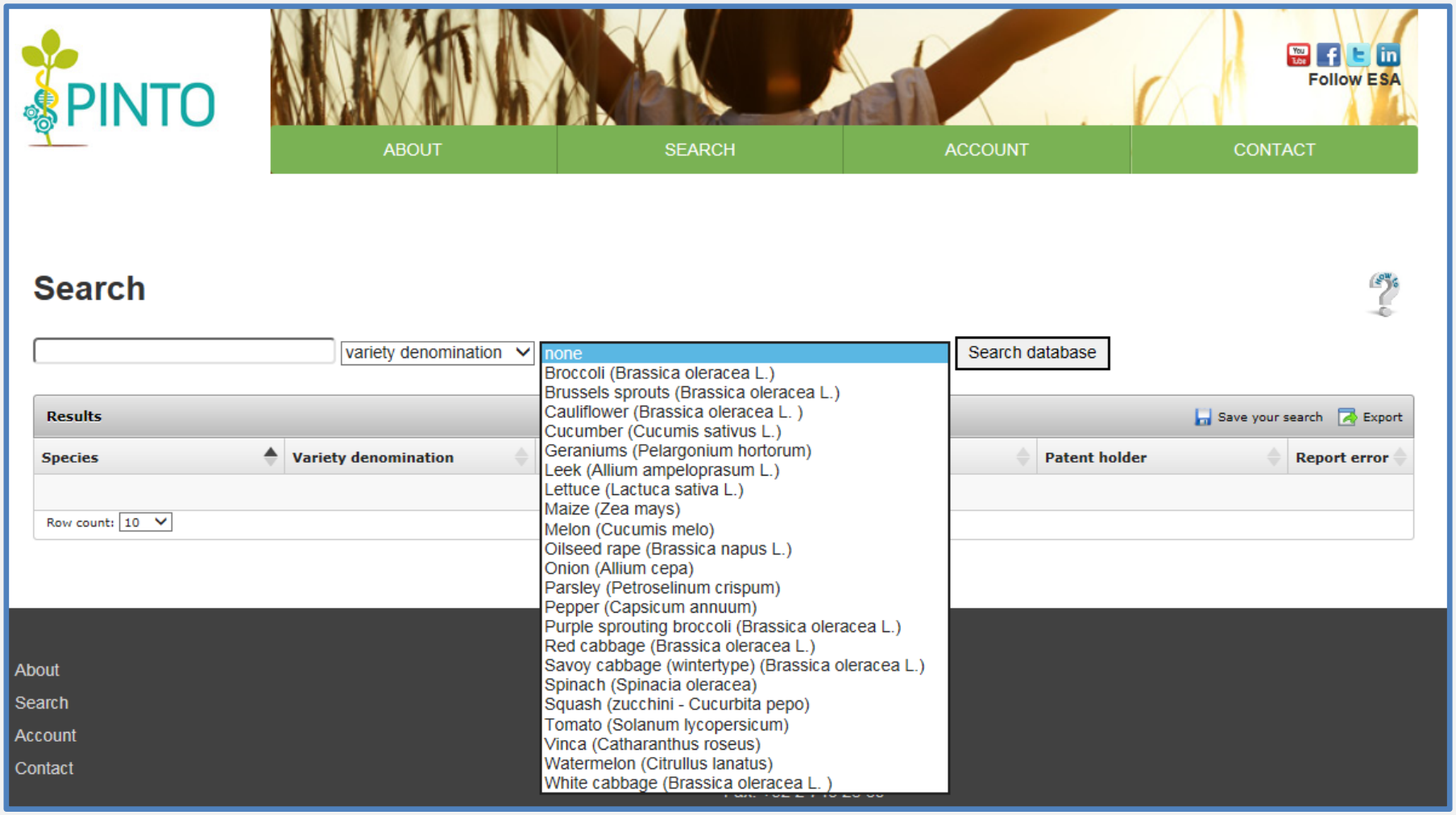

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PINTO

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EP1586235

Search

EP1586235 | patent number | Search database

Results — Save your search | Export

Species	Variety denomination	Patent number	Patent title	Patent holder	Report error
Oilseed rape (Brassica napus L.)	ANISSE	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	
Oilseed rape (Brassica napus L.)	AXANA	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	
Oilseed rape (Brassica napus L.)	ELVIS	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	
Oilseed rape (Brassica napus L.)	ES ALIAS	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	
Oilseed rape (Brassica napus L.)	ES ALONSO	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	
Oilseed rape (Brassica napus L.)	ES ALPHA	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	
Oilseed rape (Brassica napus L.)	ES ARTIST	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	
Oilseed rape (Brassica napus L.)	ES BETTY	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	
Oilseed rape (Brassica napus L.)	ES CAUCASE	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	
Oilseed rape (Brassica napus L.)	ES CENTURIO	EP1586235	Cytoplamic male sterility system producing canola hybrids	Institut National de la Recherche Agronomique	

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EP2586294

Spinach (Spinacia oleracea) | species | Search database

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Species	Variety denomination	Patent number	Patent title	Patent holder	Report error
Spinach (Spinacia oleracea)	MANDRIL RZ F1 (51-332)	EP2586294	Peronospora resistance in Spinacia oleracea	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	
Spinach (Spinacia oleracea)	MEERKAT RZ F1 (51-333)	EP2586294	Peronospora resistance in Spinacia oleracea	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	
Spinach (Spinacia oleracea)	PLATYPUS RZ F1 (51-707)	EP2586294	Peronospora resistance in Spinacia oleracea	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	
Spinach (Spinacia oleracea)	PLOVER RZ F1 (51-336)	EP2586294	Peronospora resistance in Spinacia oleracea	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	
Spinach (Spinacia oleracea)	WOODPECKER RZ F1 (51-335)	EP2586294	Peronospora resistance in Spinacia oleracea	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	
Spinach (Spinacia oleracea)	COATI RZ F1 (51-331)	EP2586294	Peronospora resistance in Spinacia oleracea	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	
Spinach (Spinacia oleracea)	CANARY RZ (51-343)	EP2586294	Peronospora resistance in Spinacia oleracea	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	
Spinach (Spinacia oleracea)	GORILLA RZ (51-521)	EP2586294	Peronospora resistance in Spinacia oleracea	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	
Spinach (Spinacia oleracea)	WOMBAT RZ (51-338)	EP2586294	Peronospora resistance in Spinacia oleracea	Rijk Zwaan Zaadteelt en Zaadhandel B.V.	

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International Licensing Platform

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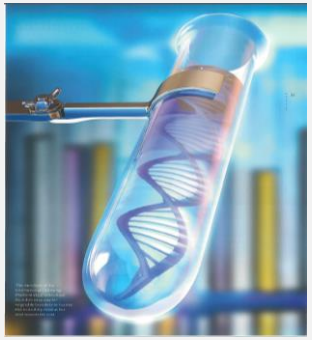
The International Licensing Platform
for vegetable plant breeding



The International Licensing Platform Vegetable has as a main objective to guarantee worldwide access to patents that cover biological material for vegetable breeding.

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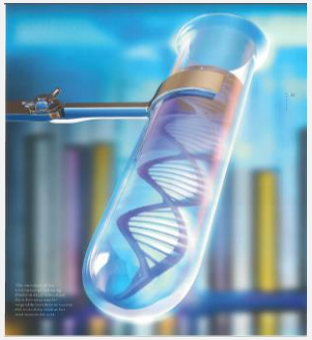

The ILP Vegetable provides a straightforward, easy way for vegetable breeders to license the traits they need.

- A patent register is composed that contains all patents of the members.
- The members of the ILP Vegetable will make all of these patents accessible to their fellow members under the conditions of the ILP Vegetable, i.e. at fair and reasonable costs.

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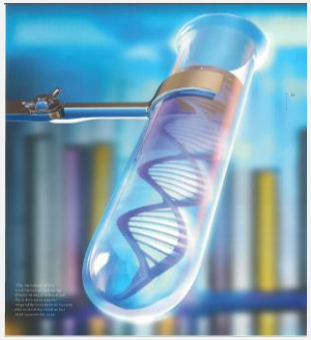

Bejo Zaden B.V.

East-West International B.V.

Enza Zaden B.V.

Groupe Limagrain

Holland-Select B.V.

Limgroup B.V.

Nunhems B.V.

Pop Vreind Seeds B.V.

Rijk Zwaan Zaadteelt en Zaadhandel

Syngenta International B.V.

Takii Europe B.V.

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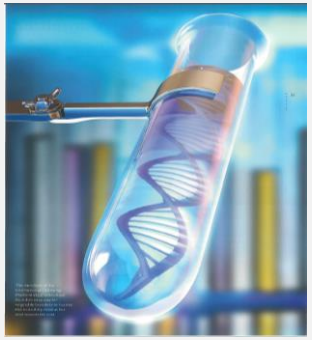
The ILP Vegetable Licensing System is innovative, simple and transparent.



- Bilateral negotiations based on Standard License Agreement: a standard agreement provided for by the ILP Vegetable, but it may also deviate.
- No agreement within three months, the case can be submitted to independent experts using the so-called 'Baseball Procedure'.
- Both members submit their license fee proposal to the secretary of the ILP Vegetable with all the arguments, why they think that their proposal is reasonable. Royalty percentage or a lump sum.
- After receiving figures from both members, the secretary exchanges the two proposals between the two members involved with the possibility to come to an agreement within three weeks.
- The most reasonable proposal will be executed. This system encourages both parties to propose reasonable positions
- cost for the baseball arbitration must be paid by the member whose proposal has not been selected.

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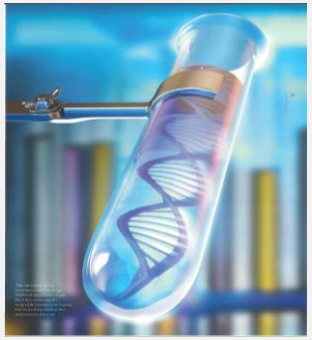

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