

# Global Patent Prosecution

December 2018



VISIT WEBSITE

CONTACT US

SUBSCRIBE

FORWARD TO A FRIEND

## Technology Spotlight Protecting Agricultural Products

The Green Revolution of the 20th century increased agricultural production worldwide primarily through high-yielding plant varieties. However, in order to sustainably feed the estimated 9 billion people who will inhabit the earth in 2050, further technological advances in agriculture are needed. The December issue of the Global Patent Prosecution Newsletter highlights mechanisms in the US and Europe to obtain enforceable commercial protection for agricultural advances. We are pleased to have our colleague Stefano Borrini from Società Italiana Brevetti provide information regarding these efforts in Europe.

### IN THIS ISSUE

[Protecting Agricultural Advances](#)

[Obtaining Plant Variety Protection in Europe](#)

[DOWNLOAD](#)

#### Co-Editor:



**Paul A. Calvo, Ph.D.**

Director

[pcalvo@sternekessler.com](mailto:pcalvo@sternekessler.com)

#### Co-Editor:



**Christian A. Camarce**

Director

[ccamarce@sternekessler.com](mailto:ccamarce@sternekessler.com)

#### Author:

#### Author:



**Peter A. Jackman**

Director

[pjackman@sternekessler.com](mailto:pjackman@sternekessler.com)



**Stefano Borrini**

Italian Patent Attorney

Società Italiana Brevetti S.p.A.

[stefano.borrini@sib.it](mailto:stefano.borrini@sib.it)

## PROTECTING AGRICULTURAL ADVANCES

By [Peter Jackman](#)

The Green Revolution of the 20<sup>th</sup> century increased agricultural production worldwide primarily through high-yielding plant varieties. However, in order to sustainably feed the estimated 9 billion people who will inhabit the earth in 2050, further technological advances in agriculture are needed.

[Read More](#)



## OBTAINING PLANT VARIETY PROTECTION IN EUROPE

By Stefano Borrini

In the European Union (EU) plant variety protection – sometimes referred to as Plant Breeder’s Rights or PBRs - is provided by the Community Plant Variety Office (“CPVO”). The CPVO is “a self-financed EU agency responsible for the management of the Community Plant Variety Rights System. Located in Angers, France, the CPVO was created by the Council Regulation 2100/94 and has been operational since April 1995.” National protection is available, but EU and national protection on the same variety cannot coexist, and EU protection would prevail.

[Read More](#)

The information contained in this newsletter is intended to convey general information only, and should not be construed as a legal opinion or as legal advice. Sterne, Kessler, Goldstein & Fox P.L.L.C. disclaims liability for any errors or omissions, and information in this newsletter is not guaranteed to be complete, accurate, and updated. Please consult your own lawyer regarding any specific legal questions.

© 2018 Sterne, Kessler, Goldstein & Fox P.L.L.C

[Click Here](#) to opt-out of this communication



# Global Patent Prosecution

December 2018



VISIT WEBSITE

CONTACT US

SUBSCRIBE

FORWARD TO A FRIEND

## PROTECTING AGRICULTURAL ADVANCES

By [Peter A. Jackman](#)

The Green Revolution of the 20<sup>th</sup> century increased agricultural production worldwide primarily through high-yielding plant varieties. However, in order to sustainably feed the estimated 9 billion people who will inhabit the earth in 2050, further technological advances in agriculture are needed. To incentivize investment in plant breeding and new variety development, governments worldwide have created legal forms of enforceable commercial protection. In the United States, those forms include (1) plant variety protection, (2) plant patents, and (3) utility patents.

### Plant Variety Protection

The Plant Variety Protection Office (PVPO) of the U.S. Department of Agriculture provides intellectual property protection to breeders of new varieties of seeds and tubers. Anyone who is the breeder of a unique variety of a sexually reproduced or tuber-propagated plant may apply for plant variety protection. The applicant may be an individual, a public institution, or a corporation.

Upon receiving applications, the PVPO examines them to establish that the varieties are new, distinct, uniform and stable. The following are general program requirements:

1. Completing all application forms. See <https://www.ams.usda.gov/services/plant-variety-protection/pvpo-forms>;
2. Paying requisite fees. Currently, a fee of \$4,382 USD must be paid with the application, and a certificate fee of \$768 USD must be paid upon issuance of the certificate (total cost of protection is \$5,150 USD). These fees are subject to change and are non-refundable. There are no maintenance fees;

3. Providing a variety name that does not conflict with an existing name for the crop; and
4. Depositing of seeds or tissue cultures.

PVP Certificate owners have the right to exclude others from selling, marketing, reproducing, importing or exporting the protected variety for 20 years (25 years for trees and vines) from the issuance of the certificate. Since 1970, over 10,000 PVP Certificates have been issued.[1]

### **Plant Patents**

Under 35 U.S.C. § 161, “[w]hoever invents or discovers and asexually reproduces any distinct and new variety of plant, including cultivated sports, mutants, hybrids, and newly found seedlings, other than a tuber propagated plant or a plant found in an uncultivated state, may obtain a patent therefor...” Asexually propagated plants include those that are reproduced by means other than from seeds, such as by the rooting of cuttings, by layering, budding, grafting, or inarching.[2]

The specification must contain as full and complete a disclosure as possible of the plant and the characteristics that distinguish it over related known varieties, and must particularly point out where and in what manner the variety of plant has been asexually reproduced. For a newly found plant, the specification must particularly point out the location and character of the area where the plant was discovered.[3] Only one claim is permitted, and it must be directed to the new and distinct variety of the specified plant as described and illustrated, and may also recite the principal distinguishing characteristics.[4]

The grant of a plant patent from the U.S. Patent and Trademark Office (USPTO) includes the right to exclude others from asexually reproducing the plant, and from using, offering for sale, or selling the plant, or any of its parts, or from importing the plant into the United States.[5] A plant patent has a term which expires 20 years after the filing date of the application. The patent protects a single plant and its asexual progeny, and no maintenance fees are required to keep the patent in force.

### **Utility Patents**

Utility patents are technology neutral, in that they are available for both sexually and asexually propagated plants, and they are not limited to a single plant variety or a single claim. They can be used to protect, for example, genetically modified plant genes, proteins and products, transgenic plants, a class of varieties with specific traits and methods of making or using the plants. However, naturally occurring plants cannot be protected.

The requirements for patentability include utility, novelty, non-obviousness, written description and enablement, and the grant of a utility patent from the USPTO gives the patentee the right to exclude others from making, using, offering for sale, or selling the invention throughout the U.S. or importing the invention into the U.S.[6] A utility patent has a term which expires 20 years after the filing date of the application, and three separate maintenance fees are required to keep the patent in force for the entire term (currently totaling \$12,600 USD for a large entity).

Utility patents are typically more difficult to obtain than PVP Certificates or plant patents, and are more expensive. However, according to data obtained from the USPTO, the number of utility patents in agricultural technologies has increased steadily over the past decade. Figure 1 shows the total number of issued patents from different sectors in the agricultural industry over the past 10 years.

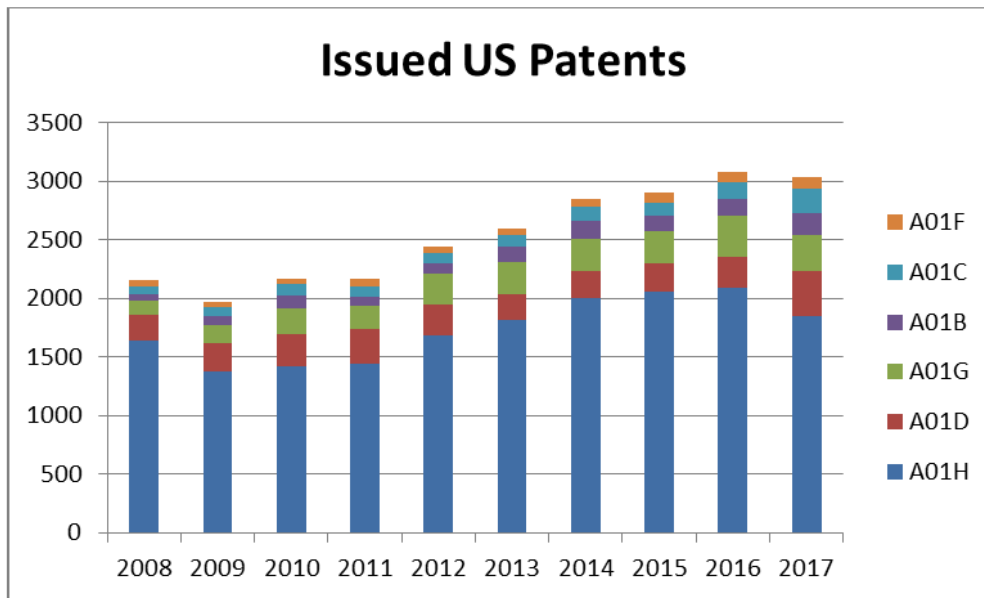


Figure 1: Issued Patents by Classification in the Ag Industry. CPC Class **A01B** (Soil working in agriculture or forestry; parts, details or accessories of agricultural machines or implements, in general); **A01C** (Planting; sowing; fertilizing); **A01D** (Harvesting; mowing); **A01F** (Processing of harvested produce; hay or straw presses; devices for storing agricultural or horticultural produce); **A01G** (Horticulture; cultivation of vegetables, flowers, rice, fruit, vines, hops or seaweed; forestry; watering); **A01H** (New plants or processes for obtaining them; plant reproduction by tissue culture techniques).

Together, PVP and patents form a complementary IP system in the U.S., and both of which are necessary to help incentivize the agriculture industry to develop the technologies necessary to feed the growing global population.

[1] Intellectual Property Protection for Plants in U.S., UPOV-Train the Trainers Program, May 9-13, 2016, Kitisri Sukhapinda, Attorney Advisor, Office of Policy and International Affairs.

[2] MPEP § 1601.

[3] 37 C.F.R. § 1.163.

[4] 37 C.F.R. § 1.164.

[5] 35 U.S.C. § 163.

[6] 35 U.S.C. § 154.

The information contained in this newsletter is intended to convey general information only, and should not be construed as a legal opinion or as legal advice. Sterne, Kessler, Goldstein & Fox P.L.L.C. disclaims liability for any errors or omissions, and information in this newsletter is not guaranteed to be complete, accurate, and updated. Please consult your own lawyer regarding any specific legal questions.



# Global Patent Prosecution

December 2018



[VISIT WEBSITE](#)

[CONTACT US](#)

[SUBSCRIBE](#)

[FORWARD TO A FRIEND](#)

## OBTAINING PLANT VARIETY PROTECTION IN EUROPE

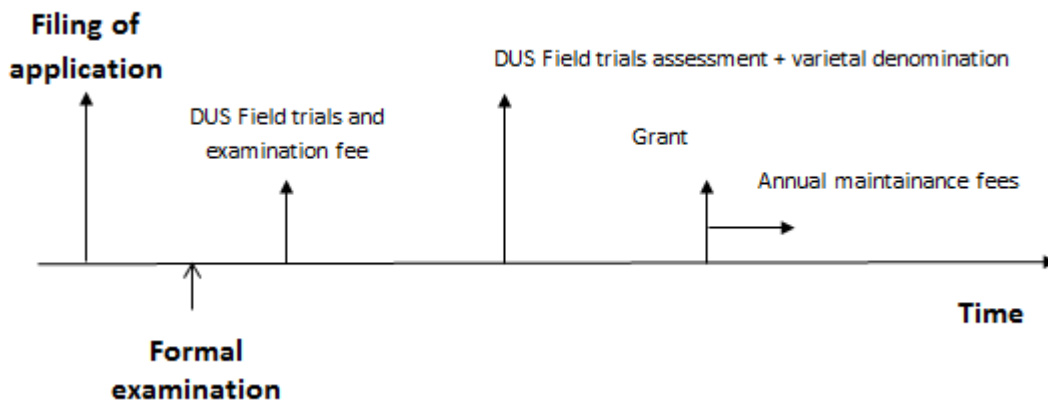
By Stefano Borrini

General introduction

1. In the European Union (EU) plant variety protection – sometimes referred to as Plant Breeder's Rights or PBRs - is provided by the Community Plant Variety Office ("CPVO"). The CPVO is "a self-financed EU agency responsible for the management of the Community Plant Variety Rights System. Located in Angers, France, the CPVO was created by the Council Regulation 2100/94 and has been operational since April 1995." National protection is available, but EU and national protection on the same variety cannot coexist, and EU protection would prevail. From 1995 through 2017 the CPVO has received 61,513 applications. In 2017, 3,422 applications were received, with 47.57 % of the applications directed to ornamentals, which continue to be the largest group of applications filed. Figure 1 below gives a view of the geographical coverage of EU Plant Variety Rights (coverage represented by the darker colour). It is to be noted that obtaining protection in Switzerland (in lighter colour) requires a separate application, and a different time frame for novelty applies.



2. The system of Community plant variety rights is established and managed by the CPVO, “*the sole and exclusive form of Community industrial property right for plant varieties.*” This holds true irrespective of the species, since both sexually and asexually reproduced species may be protected **only** via Plant Breeder’s rights.
  - a. **This** represents a first difference from the situation in the USA, where **Plant Patents** are available for the protection of varieties of asexually reproduced plants while certificates obtainable under the **Plant Variety Protection Act** are available for the protection of sexually reproduced plants. Moreover, it must be noted that the holder of a USA Plant Patent may prevent a third party from using the protected variety in a breeding program, while this is not possible according to EU law. Finally, utility patent protection is not available in the EU for plant varieties.
3. The procedure for obtaining plant variety rights before the CPVO is shown below in Figure 2.



4. The procedure starts with an application for a variety which needs to satisfy the following requirements: *novelty, distinctness, uniformity and stability, suitable varietal denomination.* A brief description follows.
  - a. **Novelty** is lost only as a consequence of marketing the variety within a certain time frame, provided that such marketing took place with the consent of the breeder and for the purpose of exploitation of the variety. More specifically:

*A variety shall be deemed to be new if, at the date of application determined*



*pursuant to Article 51, variety constituents or harvested material of the variety **have not been sold** or otherwise disposed of to others, **by or with the consent of the breeder** within the meaning of Article 11, for **purposes of exploitation** of the variety:*

*(a) earlier than one year before the abovementioned date, within the territory of the Community;*

*(b) earlier than four years or, in the case of trees or of vines, earlier than six years before the said date, outside the territory of the Community*

- b. To be noted that, unlike USA law (Plant Patents) under which substantially the sale of an (asexually reproduced) plant all over the world triggers a period of one year for filing a valid application, EU law allows a longer period according to the place of sale.
  - c. **Distinctness** is satisfied when the variety is clearly distinguishable from any other variety whose existence is a matter of common knowledge on the date of application. **Uniformity** is satisfied when the variety is sufficiently uniform in the characteristics included in the examination of distinctness. Finally, **stability** is satisfied when the expression of the characteristics examined for assessing distinctness or used for the variety description, remain unchanged after repeated propagation.
  - d. **Varietal denomination.** An application shall propose a variety denomination which may accompany the application, to be regarded as the generic designation of the variety.
  - e. From a practical point of view, it is to be borne in mind that a non-EU Applicant needs an EU-based procedural representative.
5. **Examination procedure.** The CPVO procedure provides for field trials before grant. Such trials (often named DUS trials - **D**istinctness **U**niformity **S**tability) are carried out in specialized institutes where the candidate variety is grown in comparison with known varieties (so-called varieties of common general knowledge). The aim of the trial is to check the requirements of distinctness, uniformity and stability. This is not only a remarkable difference with USA Plant patent procedure (where a paper example is carried out), but introduces a critical factor - the shipment of plant material – which is even more critical for Applicants from outside the EU. Two main **issues** have to be faced: a) the start of the period for submission of plant material for examination purposes; and b) the phytosanitary provisions to which the plant material to be submitted must comply.
- a. The beginning of DUS trials – and the submission of plant material – is determined by the filing date. For each species the CPVO sets a date – defined the **closing date** - which determines the start of trials with respect to the filing date. Taking as an example the case of apple – for which the closing date is December 31 of each year - for all applications filed **before** 31 December 2018 the trials will start in March 2019, while for all applications filed **after** 31 December 2018 the trials will start in March 2020. The critical factor is that the CPVO assumes that any Applicant is aware of these deadlines to the effect that requests for deferment are as a rule, refused. The CPVO has however set so-called postponement rules which cover very specific situations (for example, plant material coming from the other hemisphere), but even in this case only one reprieve is granted to any Applicant. Lack of delivery of plant material leads usually to refusal of the application.
  - b. The second issue is more complex. In recent years the spread of harmful organisms had led the EU to take emergency control measures. The most known of these organisms is *Xylella fastidiosa*, which is one of the most dangerous plant bacteria worldwide, causing a variety of diseases, with huge economic impact for agriculture and the environment. This has led the EU to introduce strict control measures which apply also to plant material submitted

for the trials. The measures are inconvenient for non-EU based Applicants, and are likely to become stricter in the future. It is strongly advised to deal with these issues before planning any filing.

- 6. Grant.** When the DUS trials have a positive outcome, no bar to novelty is found and the varietal denomination is approved, a Community Plant Variety Right is granted. This right shall run until the end of the 25th calendar year or, in the case of varieties of vine and tree species, until the end of the 30th calendar year following the year of grant. In order to maintain the Community plant variety right, annual maintenance fees must be paid for the whole duration of the right; non-payment of an annual fee before the expiry of the right will lead to a lapse of the right. Another peculiarity of the CPVO system is that the amount of the annual maintenance fee is flat, currently fixed at 330 € for any annuity and for all the territory of the EU - currently comprising 28 States - which makes maintenance of the rights really cost-effective.

---

**About the author:** Stefano Borrini is an Italian attorney at Società Italiana Brevetti S.p.A. and has particular experience in plant variety protection as procedural representative before the Community Plant Variety Office (CPVO).

The information contained in this newsletter is intended to convey general information only, and should not be construed as a legal opinion or as legal advice. Sterne, Kessler, Goldstein & Fox P.L.L.C. disclaims liability for any errors or omissions, and information in this newsletter is not guaranteed to be complete, accurate, and updated. Please consult your own lawyer regarding any specific legal questions.

© 2018 Sterne, Kessler, Goldstein & Fox P.L.L.C

[Click Here](#) to opt-out of this communication

**Technical Minds. Legal Muscle.**