ISF View on Intellectual Property
Adopted in XXXXXXX, June 20xx

EXECUTIVE SUMMARY

INTRODUCTION

1  Protection of plant varieties through Breeder’s Right
   1.1 Conditions for the granting of Breeder’s Right
      1.1.1 Novelty
      1.1.2 DUS Testing
         1.1.2.1 Characteristics for DUS testing
            1.1.2.1.1 Basic conditions that a characteristic should fulfill to be used for the purpose of DUS testing
            1.1.2.1.2 Classification of characteristics
            1.1.2.1.3 Specific types of characteristics
               Additional characteristics
            1.1.2.1.4 The use of pest and disease resistance characteristics
            1.1.2.1.5 The use of characteristics related to converted varieties
            1.1.2.1.6 The use of DNA markers
      1.1.2 DUS of hybrids
      1.1.3 Improving the management, quality and efficiency of DUS testing
      1.1.4 Ownership of DUS testing report and reference samples
      1.1.5 Variety denomination
   1.2 Scope of protection of Breeder’s Rights
      1.2.1 UPOV 1978
      1.2.2 UPOV 1991
      1.2.3 Proposals for further improvement
      1.2.4 The right on harvested material (art. 14 sub 2 UPOV 91) and products derived from the harvested material (art. 14 sub 3 UPOV’91) in relation to exhaustion of the Plant Breeders Rights (art. 16 UPOV ’91)
      1.2.5 Provisional Protection
   1.3 Essential Derivation
      1.3.1 Definition of essential derivation
1.3.2 ISF consideration on essential derivation
1.3.3 ISF interpretation on essential derivation
  1.3.3.1 The technical aspect: the derivation
  1.3.3.2 The legal aspect: the dependence
1.3.4 Entry into force of the EDV clause
1.3.5 Interpretation and wording of the essential derivation
1.3.6 The use of characteristics related to converted varieties
1.4 Exceptions to Breeders Rights
  1.4.1 Breeders Exception
  1.4.2 Farmer’s exception
  1.4.3 Distinctness and Essential Derivation
1.5 Enforcement
  1.5.1 Main infringements of plant variety IP rights
    1.5.1.1 Illegal sales of propagating material of the protected variety
    1.5.1.2 Illegal use of farm-saved seed
  1.5.2 Illegal imports or export
  1.5.3 Conclusions
2 Patents for plant related inventions
  2.1 Scope of Patentability
    2.1.1 Patents on varieties, plants and traits
    2.1.2 Scope of exception from patentability in regard to plant varieties
    2.1.3 Patents of breeding processes
  2.2 Prerequisites for Patentability
  2.3 Scope and term of protection
  2.4 Exceptions from the Scope of Protection
    2.4.1 Research Exemption
    2.4.2 Breeders’ Exemption
    2.4.3 Infringement and Low Level Presence of Patented Gene
    2.4.4 Farm Saved Seed from varieties with a patented element
    2.4.5 The interaction of contracts and statutory exceptions
  2.5 Patent Information
  2.6 Licensing
3 Plant Genetic Resources for Food and Agriculture
  [CHAPTER 3 WILL UNDERGO REVISION BY CHAIRMAN OF IPC.]
  3.1 The need of Plant Genetic Resources
  3.2 International treaties
    3.2.1 The Convention on Biological Diversity (CBD)
    3.2.2 The FAO International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA)
  3.3 Implementation of the International Treaty on PGRFA
  3.4 Farmers Rights
  3.5 Conclusions
4 Other forms of protection
**ISF View on Intellectual Property**

**INTRODUCTION**

“Seed is life!” Members of the International Seed Federation are committed to breeding and producing the highest quality seed to improve farmers’ productivity. Agriculture can be considered to be the foundation of civilization and in a similar fashion; plant breeding is a fundamental cornerstone of agriculture. Our global population growth coupled with additional demand for animal protein, fiber and fuel will place further demands on the need for increased agricultural productivity overall. Never has the need to develop new and improved crop varieties been more urgent.

**Importance of Effective Intellectual Property Protection (IPP)**

Strong intellectual property protection enables developers of new plant varieties and improved seeds to share in the benefits of their efforts. This promotes research and development, which ultimately enhances crop production and conservation of genetic resources. Research and development investments are generally long-term and require significant amounts of financial resources. Private sector plant breeders and seed producers must be able to recoup their original investment as well as make earnings on it. Seed sales can then continue to fuel cycles of investment based research and development. This will benefit farmers, growers and the society as varieties will be adapted to their desired needs.

**Brief history on forms of IP in plant breeding**

Before specific legal instruments providing IP were available in plant breeding, trade secrecy and contractual arrangements were used to keep new plant varieties, native traits, and breeding methods proprietary to their developers. For example, the ability to maintain parental lines of hybrid cultivars as trade secrets and the greater returns from annual purchases of new hybrid seed rather than planting farmer-harvested seed encouraged private breeding and seed production companies to enter into the development of hybrid maize in the U.S. in the 1920s and 1930s. The 1930 U.S. Plant Patent Act (35 USC §161 et seq.) introduced IP protection for asexually propagated non-tuberous plant varieties. The Plant Patent Act prohibited asexual reproduction of the variety but did not prohibit sexual crossing with the patented variety (US Plant Patent Act 1930).

In 1938, plant breeders from many countries gathered in Amsterdam to form the International Association of Plant Breeders for the protection of Plant Varieties (ASSINSEL) which is now incorporated in ISF. The main purpose of ASSINSEL was to establish a system that would reward plant breeders for their hard work and consequently to encourage them to continue their development of new and improved plant varieties.

During the 1950s and 1960s there was much interest paid by governments and plant breeders to determine how IP could be further developed to encourage private investments into the breeding of self-pollinated varieties. As a result, UPOV was established which provided a specifically tailored (sui generis) form of protection known as Plant Breeders Rights or Plant Variety Protection (PVP). Three texts of the UPOV Convention have been enacted (1961, 1978 and 1991) and various countries adhere to one of these texts. PVP

---

1 ISF recognizes that, given all relevant prevailing and future factors, this document may necessarily be subjected to review and modifications.

www.worldseed.org
provides protection against reproducing an existing variety for the purpose of marketing propagating material of the variety.

**ISF View on IP**

In the ISF view on IP, ISF describes in following order the important aspects of Plant Variety Protection, Patent Protection as well as the Legislation on Plant Genetic Resources and indicates how these systems can be best optimized for the seed industry.

Chapter 1

Traditionally plant breeders are not overly active in starting court procedures, but try to resolve matters between the parties. As a result there is not an overload of jurisprudence to provide further clarification to the articles of the Plant Variety Protection legislation. UPOV itself has undertaken the initiative to publish several explanatory notes on definitions as well as provisions within the UPOV Convention (see: [www.upov.int](http://www.upov.int)). But there are still some aspects on Plant Variety Protection that can use some further clarification.

In Chapter 1 ISF elaborates on some aspects about the testing of new varieties on Distinctness, Uniformity and Stability (DUS). As new technologies become available the use of DNA markers in DUS testing raises possibilities but also some risks. The scope of the plant breeders right is being assessed, particularly in regard to the provisions for the protection of harvested material and Essentially Derived Varieties (EDV’s). And as for the exceptions to the breeder’s right ISF gives its opinion about the meaning of the so called farmers’ privilege.

Chapter 2

Countries adhering to the Uruguay Round Agreement on Trade-Related Intellectual Property Rights (TRIPs) must provide patent protection for all areas of technology but do not have to provide patent protection for plant varieties if they provide a sui-generis protection system for plant varieties instead. Countries that do not exclude plant varieties from patentability include the US, Australia, Japan and South Korea. Plant varieties per se cannot be patented in the European Union (EU), but claims to plants that are not confined to a single variety can be obtained, and traits and some breeding methods can also be patented. And then there are countries that do not allow any patent protection on plant material at all, such as India and most countries in Africa.

Patentability criteria require that an invention be novel, reach a level of inventiveness, be sufficiently enabled so that the invention can be practiced and tested, and that it is useful. As in the past, new technologies that are so widely applicable that they open up new fields of invention – as plant transformation did more than two decades ago – will be granted broad protection. As the state of science progresses, the subject matter that meets these criteria will change and the scope of claims will narrow as those new fields of invention become well-established. There are differences in national patent laws as to what specific activities can be undertaken with a patented invention without a license. In Chapter 2 ISF gives its view on the scope and term of patent protection in regard to plant material, as well as to the possibility for certain exclusions of patentability. ISF aims to find the right balance between protection on the one hand and access on the other hand. Therefore ISF proposes to find a balanced solution by means of an Industry Licensing Model.

Chapter 3

In Chapter 3 ISF explains its position towards Plant Genetic Resources as well as the International Treaties CBD and PGRFA.
The conservation of genetic resources as a reservoir of genetic diversity for research and further breeding is important. Genetic resources residing in old or under-utilized varieties and wild species becomes potentially more useful as new capabilities to read and comprehend the genome continue to be developed. Without sufficient incentives to encourage longer-term and more basic research necessary to unlock a broader pool of conserved genetic diversity, society runs the risks of missed opportunities and potentially endangering existing widely used genetic diversity. Plant breeders and seed producers have critical roles to play in continuing to develop and make available varieties with the genetic potential to produce more bountiful and nutritious harvests.

1. **Protection of plant varieties through Breeder’s Right**

1.1 **Conditions for the granting of Breeder's Right**

According to the UPOV Convention a variety can be protected if it is:

- new
- distinct (D)
- uniform (U)
- stable (S)
- designated by a denomination.

The grant of the Breeder's Right shall not be subject to any further or different conditions.

1.1.1. **Novelty**

According to article 6 of UPOV 1991 the variety shall be deemed to be new if, at the date of filing of the application for a Breeder's Right, propagating or harvested material of the variety has not been sold or otherwise disposed of to others, by or with the consent of the breeder, for purposes of exploitation of the variety within specific time limits in or outside the territory of filing.

These conditions should apply for all kinds of varieties, be they sexually or asexually reproduced, pure lines, populations, hybrids of different kinds. Hybrid parental lines as well should be subject to these conditions as any other plant varieties.

Some PVP offices and national laws state that parental lines are not novel in cases where the hybrids, composed of these parental lines, have already been produced and/or sold.

However, ISF is convinced from its interpretation of the UPOV Convention that the commercialization of a hybrid does not affect the novelty of the respective parental inbred lines.

In case the possibility for protection in a certain country is opened up for a certain species, a transitional period should be established during which the application of varieties that have been protected outside the territory is allowed. To avoid misuse, the remaining protection period could be set the same as the period of protection in the country where the variety has received its first protection.

1.1.2 **DUS Testing**

1.1.2.1 **Characteristics for DUS testing**

1.1.2.1.1 **Basic conditions that a characteristic should fulfill to be used for the purpose of DUS testing**

ISF fully supports the principles provided for by UPOV as regards characteristics for DUS testing.
For ISF these principles guarantee the quality and the pertinence of the Breeder’s Right because they define the basic conditions that a characteristic should fulfill to be used for the purposes of DUS testing. The basic conditions are that a characteristic should:

a. result from a given genotype or combination of genotypes (this requirement is specified in Article 1(vi) of the 1991 Act of the UPOV Convention but is a basic requirement in all cases);
b. be sufficiently consistent and repeatable in a particular environment;
c. exhibit sufficient differentiation between varieties to be able to establish distinctness;
d. be capable of precise definition and recognition (this requirement is specified in Article 6 of the 1961/72 and 1978 Acts of the UPOV Convention, but is a basic requirement in all cases);
e. allow uniformity requirements to be fulfilled;
f. allow stability requirements to be fulfilled, meaning that it produces consistent and repeatable results after repeated propagation or, where appropriate, at the end of each cycle of propagation.

ISF especially draws the attention of the competent national and international authorities on plant variety protection to the scientific rigor, which should govern the definition of the systems for testing DUS characteristics. This is essential to ensure the reproducibility of the results obtained and the consistency of the observations made by different competent authorities on the same characteristic.

ISF reaffirms its full support to the guidelines for conducting DUS testing as published by UPOV after consultation with all the stakeholders involved and encourages all present and future UPOV members and others to use those guidelines, in order to harmonize the test results for Breeder's Right.

1.1.2.1.2. Classification of characteristics

UPOV Technical Guidelines contain currently standard phenotypic characteristics. They are composed of the non-asterisk characteristics, the asterisk characteristics and the grouping characteristics.

The introduction of new characteristics for DUS testing is possible (additional characteristics) but ISF considers that it should be made without creating new obligations on the breeders of the already protected varieties. Those breeders should simply be informed by the authority that their varieties have been used in a comparison with new varieties in DUS testing using new characteristics. Only the original official reference sample of the already protected variety could be used for comparison with the “new” variety. Existing variety descriptions cannot be amended.

1.1.2.1.3 Specific types of characteristics:

In certain cases specific types of characteristics can be used in the DUS process.

- Additional characteristics

Additional characteristics (as defined in UPOV document TG/1/3 – General introduction to the examination of DUS-) can include certain phenotypic characteristics (e.g. quality traits as sugar content, Glucosinolate content and oil content), as well as protein characteristics. They must satisfy the general criteria of characteristics set above, have been used by at least one UPOV contracting party in DUS testing and submitted to UPOV.
Those characteristics are consistent with the 1991 UPOV definition of a variety ("Variety means a plant grouping (…) defined by the expression of the characteristics resulting from a given genotype (…)". They are mainly physiological and can be added to the list of characteristics in the Technical Guideline or in specific cases to the list of characteristics in the variety description with the agreement of the breeder.

Additional phenotypic characteristics should be defined on a crop-by-crop basis. They can establish distinctness in complement with the standard phenotypic characteristics as defined in the Technical Guidelines or on their own when accepted by the testing authority and added to their testing protocol.

ISF considers that the use of protein characteristics in DUS testing [which are described in detail in the UPOV TG’s for barley, wheat and maize] can be useful as additional characteristics. On account of its effect on the scope of protection in general, but especially in the case of populations and synthetic varieties of cross-pollinating species these protein characteristics should be applied carefully and not be used alone:

- Only if all other characteristics failed to establish clear distinctness, despite some evidence of distinctness in UPOV standard characteristics,
- Only if a test procedure has been agreed upon between the competent authority and the applicants.
- Consensus between UPOV members on the use of protein characteristics in the DUS examination process is necessary in order to obtain international acceptance of DUS examination reports.

1.1.2.1.4 The use of pest and disease resistance characteristics

Today, one of the essential components of genetic progress provided by plant varieties lies in their ability to offer effective resistance to a considerable range of diseases and pests affecting plants.

As far as the pest and disease resistance characteristics are concerned, ISF supports any initiative making it possible to use them as characteristics of Distinctness in DUS testing, insofar as:

- They generally satisfy the basic conditions mentioned above in paragraph 1.1.2.1. And, in particular:
  - The resistances should be clearly defined, notably by specifying the Genus, the species, and if need be the pathotype concerned by the resistance. In case of several races, the race should also be defined;
  - Their evaluation should be covered by a standardized method and this should be available through a known publication or once incorporated into the guidelines for testing the species concerned.

- A different resistance level is only admissible as a characteristic enabling distinctness to be decided on if the levels of expression can be clearly established and if the test results are consistent and technically reliable;

1.1.2.1.5 The use of characteristics related to converted varieties

ISF understands that a converted variety is a variety which has been obtained from an pre-existing variety by techniques such as gene transfer, multiple back-crossing or mutation leading to a new variety differing from the pre-existing one only by the newly included characteristic.
In order to assess distinctness between the converted and the initial variety, ISF considers it necessary to comply with the UPOV principles stating that a variety is “defined by the expression of the characteristics resulting from a given genotype or combination of genotypes”. In addition, in accordance with the 1978 and the 1991 Acts of the UPOV Convention, ISF considers that in the distinctness assessment procedure only the inherent nature of the variety counts, without indicating the methods of development.

Consequently only converted varieties having a clear phenotypic difference can be considered as distinct from the initial variety. If the differentiating characteristic is not included in the list of the UPOV characteristics, that characteristic should be added to the list by the Breeder’s Right office as an additional phenotypic characteristic, at the request and/or with the agreement of the breeder. The characteristic fulfils the basic conditions requested by UPOV.

The following examples illustrate the ISF position:

a. A variety and its herbicide tolerant form to a given herbicide should be considered as distinct (assessment of distinctness should include the spray of the herbicide).

b. Two “identical” varieties tolerant to the same herbicide but through different mechanisms of tolerance should not be considered as distinct. This does not preclude the protection of the two different mechanisms by patents if the patenting criteria are met.

c. A male sterile line should be considered as distinct from its male fertile counterpart.

d. Male sterile forms of a variety obtained via for instance different cytoplasms should not be considered as distinct.

If the application for Breeder’s Right for a converted variety is filed by the owner of the initial variety or by an authorized licensee of the owner of this initial variety, and if the converted variety differs from the initial variety only by the introduced characteristic, then, a fast-track procedure for assessing distinctness should be possible. This procedure is already used for some species in certain countries and had proved its practical interest. If, during the procedure, other differences are discovered in addition to the introduced characteristics, then, the variety should undergo the normal DUS testing procedure.

1.1.2.1.6 The use of DNA markers

ISF strongly endorses the use of DNA-based markers for variety identification purposes - e.g. in the case of enforcement of IPR’s - and to help determine genetic similarity between varieties for use in EDV disputes. In addition, ISF favors improvements that enhance the reproducibility, efficiency and harmonization of the current Distinctness, Uniformity and Stability (DUS) testing and examination process, while maintaining the current scope of protection. Plant breeders quickly apply modern technologies for their work.

ISF considers that DNA-based markers can be useful in the DUS testing and examination process under the following conditions:

- When DNA-based markers are fully predictive of the expression of phenotypic DUS characteristics to simplify the testing of these characteristics (UPOV option 1a, as outlined in UPOV documents TC/38/14-CAJ/45/5 and TC/38/14 Add.-CAJ/45/5 Add.).
- When used for the calibration of DNA-based markers with respect to the expression of phenotypic characteristics in the management of reference collections (UPOV option 2) and in the proper planning of DUS trials. The use of phenotypic descriptors together with DNA based data can be acceptable for these purposes provided that no phenotypically similar varieties, which are essential for comparison, are omitted.
However, ISF is cautious in expanding the use of DNA-based markers in the field of DUS testing and examination beyond these uses because:

- Except for some specific cases, DNA-based markers are not predictive of the expression of phenotypic characteristics used in DUS testing and examination due to the relatively complex genetic control of many phenotypic characteristics.
- The use of molecular markers on their own, without a link to a phenotypic characteristic or without use of a distance threshold, could create a significant risk of decreasing the minimum distance between varieties to the extreme (e.g. only one base pair), thus jeopardizing the Breeder’s Right.
- If used for Distinctness, then these DNA-based markers also need to be used for Uniformity and Stability and might also be used for checking the hybrid parental formula. This could, at least at the present time, have considerable practical, technical and financial consequences.
- DNA-based markers or the methods to detect them may not be publicly available.
- Consensus between UPOV members upon the use of DNA-based markers in the DUS examination process is necessary in order to obtain international acceptance of DUS examination reports. Therefore it is necessary to agree on a harmonized approach before implementing the use of DNA-based markers in the different national DUS examination processes and consider the need for a transitional period.

Each of these problems needs to be addressed before ISF could consider expanding their use.

ISF supports the work of the BMT (UPOV Working Group on Biochemical and Molecular Techniques, and DNA profiling in particular) to find acceptable applications of DNA-based markers in the field of DUS testing. In particular, the BMT should address the following issues:

- The development of DNA-based markers that are fully predictive of the expressions of the phenotypic DUS characteristics, especially those that are laborious, time consuming or expensive to test;
- The development of methods to use DNA-based markers in combination with phenotypic DUS characteristics for the more efficient management of reference collections and DUS trials;
- The impact of using the same set of DNA-based markers that are used for Distinctness, also for determining Uniformity and Stability. This issue is of critical importance for ISF.
- The effect of rapidly changing DNA-based marker techniques on the use of DNA-based markers in the DUS examination.
- The financial impact of using DNA-based markers in the DUS examination whether as additional tool or in substitution of other means of examination.

ISF concludes that DNA-based markers can be used for identification of varieties, for determining genetic similarity between initial and putative essentially derived varieties, for improvement of the management of reference collections and planning of DUS trials and, for those DNA-based markers that are fully predictive of the expressions of DUS characteristics, to simplify the testing of these characteristics.

ISF considers that with the present state of the art, the use of DNA-based markers alone for establishing DUS, could significantly decrease the scope of protection and should therefore not be accepted.
1.1.2.2 DUS of Hybrids

The text of the UPOV Convention, the global *sui generis* system for the protection of new varieties of plants was established at the end of the 1950s and adopted in 1961, when hybrids were still the exception. It is the reason why it is mainly framed for autogamous plants, even if some provisions refer specifically to hybrids. This has led to frequent difficulties for breeders when dealing with plant breeder’s right offices and patent offices for getting protection for their hybrids.

ISF considers that, for all purposes including intellectual property protection, a hybrid is a variety. Distinctness, Uniformity and Stability of the hybrid can be assessed either on the hybrid itself or on its parents and the formula that associate them. Some protection offices consider that a hybrid is not a variety as it would not be self-reproducible without change. This is a misinterpretation of the UPOV Convention. Indeed, by the repeated use of its parents, a hybrid can be reproduced unchanged (UPOV 1978, Art. 5(3) and UPOV 1991, Art. 1(vi) 3rd indent). Consequently, the UPOV criterion of stability is fulfilled by a hybrid.

1.1.2.3 Improving the management, quality and efficiency of DUS testing

ISF believes that a variety should be considered as being Distinct when it differs in at least one characteristic from the varieties of common knowledge, incorporated in the reference collection.

In order to improve the management, quality and efficiency of DUS testing ISF considers that:

- In-depth collaboration, both among PVP offices and between PVP offices and breeders should be encouraged. PVP Offices should take over already existing DUS examination reports from other PVP Offices. ISF urges UPOV member states to introduce quality assurance programs to assure the proper use of the respective Technical Guidelines and the use of a comprehensive reference collection in DUS testing.

- The use of DNA markers is one of the tools to improve the handling of reference collections and the planning of DUS trials

- ISF urges UPOV and other relevant bodies to develop possible additional tools for the handling of reference collections and to investigate the feasibility of setting up a data base of varieties of common knowledge, including varieties protected or applied for protection under the UPOV system and or listed or applied for listing on National level to improve the management of reference collections. Such a data base should contain characteristics and information indicated in the UPOV Technical Guidelines useful in the process of grouping varieties for the purpose of DUS testing. Such a database should be accessible to plant breeders. In addition PVP authorities are encouraged to publish variety descriptions.

- ISF is in favor of further involvement of experts from the seed industry in the DUS testing process to improve efficiency and to reduce costs. However such involvement should be under official supervision.

1.1.2.4 Ownership of DUS testing report and reference samples

ISF is of the opinion that the examination reports belong to the breeder who has paid for the examination procedure. On the request of the breeder a legalized copy of the original DUS examination report should be sent free of charge but for a reasonable handling fee to other Plant Variety Protection offices.

ISF considers that the reference sample of a variety is owned by the breeder. In particular subsamples of parental inbred lines of a reference sample should only be exchanged between examination offices on the basis of an MTA following the explicit consent of the breeder.
1.1.3 Variety denomination
ISF notes that a central database regarding variety denominations has been set up by the Community Plant Variety Office (CPVO). All authorities are encouraged to make use of this database to verify the proposals for variety denominations in their respective countries in order to prevent conflicting decisions.

1.2 Scope of protection of Plant Breeders' Rights
1.2.1 UPOV 1978
The scope of protection afforded by UPOV 1978 as mentioned in article 5, is restricted to the following acts of the propagating material of the protected variety:

- production for purposes of commercial marketing
- offering for sale
- marketing

Moreover, the right of the breeder extends to ornamental plants or parts thereof normally marketed for purposes other than propagation when they are used commercially as propagating material in the production of ornamental plants or cut flowers. Furthermore, the repeated use of a variety to produce another (hybrid) variety, requires the permission of the holder of the breeder’s right.

1.2.2 UPOV 1991
Under UPOV 1991, as ruled in article 14, the scope of protection in relation to propagating material is extended to:

- Production or reproduction (multiplication) for all purposes
- Conditioning for the purposes of propagation
- Offering for sale
- Selling or other marketing
- Exporting
- Importing
- Stocking for any of the purposes mentioned above

According to paragraph 4 of article 14, more acts can be added by national law.

The scope of protection is subject to exceptions to the Plant Breeder’s Right, (the breeder’s exception, the research exception, private use exception and the farmer’s exception: see paragraph 1.5) and to the exhaustion of the Plant Breeder’s Right (see paragraph 1.3.3)

The acts as listed above apply also to:

i) the harvested material - including entire plants and parts of plants - that has been obtained through the unauthorized use of propagating material of the protected variety, unless the breeder has had reasonable opportunity to exercise his right on that material. This provision is mandatory for all UPOV member states.

ii) the products made directly from harvested material that has been obtained through the unauthorized use of harvested material of the protected variety, unless the breeder has had reasonable opportunity to exercise his right on that harvested material. This provision is optional for the UPOV member states.

The exclusive rights of the holder of the PBR on the acts as stated above also apply to material of:

1. Varieties which are essentially derived from the protected variety, where the protected variety is not itself an essentially derived variety; (see paragraph 1.4)
2. Varieties which are not clearly distinguishable from the protected variety;
Varieties whose production requires the repeated use of the protected variety (hybrids).

ISF is convinced that the extension of the protection of the parent line to the hybrid variety produced with that parent line, should mean that all material of the hybrid variety fall under the protection of the parent line. However, due to different views on this issue breeders should consider protecting the hybrid in addition to the parental lines.

ISF is also convinced that the vegetatively reproduced plants of the protected hybrid variety should fall under the protection of the hybrid.

1.2.3 Proposals for further improvement
- The act of “offering for sale” listed as one of the acts in article 14 sub a UPOV’91 should not only refer to the plant material but should also include the placing of advertisements in the territory of the Plant Breeders Right or offers for sale anywhere which can be accessed in said territory.
- Add the act of the transfer of material of a protected variety from one country to another country through the territory of the Plant Breeder’s Right to the acts as listed in article 14 sub a UPOV’91.
- The protection of the end product should be implemented by all UPOV member states.

1.2.4 The right on harvested material (art. 14 sub 2 UPOV’91) and products derived from the harvested material (art. 14 sub 3 UPOV’91) in relation to the exhaustion of the Plant Breeder’s Right (art. 16 UPOV’91)

The extension of the scope of protection to the harvested material or to the end product that has been derived from the harvested material has specific limitations. The Right is only extended to these categories of material if the following conditions are fulfilled:

i) the “unauthorized use” of the propagating material, and
ii) the absence of a “reasonable opportunity” for the holder of the Right to exercise his Right on the propagating material or, as the case may be, on the harvested material.

These two conditions must be considered in connection with the provision of exhaustion, as laid down in article 16 UPOV’91. Article 16 determines that the Right on the material that has been sold in a particular territory where the variety is protected is exhausted, but revives once the material is being reproduced in said territory or exported to a country where no Plant Breeder’s Rights exist, except if that exported material is destined for final consumption.

In fact, as the act of reproduction requires the permission of the PVP holder, the unauthorized export of propagating material or material that will be used as such, to a country where his variety is not protected is an unauthorized act, whether the variety can be protected in the country of export or not. This means that the condition of “unauthorized use” of the propagation material can be fulfilled even if the propagation takes place in a country where the variety is not protected. As the holder in such circumstances has no reasonable opportunity to exercise his rights he is entitled to act against the material harvested from such unauthorized propagating material if imported in a country where the variety is protected.

In respect to the definition of “unauthorized use”, some persons may argue that in a country where the variety is not protected by Plant Breeders Rights the (re)production of propagating material will never be authorized if the export of the propagating material wasn’t unauthorized as explained above. ISF is of the opinion that there is unauthorized use if the breeder has not given his explicit authorization. This can be the case of a breach of contract or once material
that has been sold on the market as end product is being used as propagating material in a
country where the variety is not protected.

The second important condition is the requirement that the breeder should first exercise his
breeder’s right on the propagating material - if he has a reasonable opportunity to do so -
before he can exercise his rights on the harvested material. The issue arises here whether
this clause creates an obligation for the breeder to protect his variety in all countries where
there is a PBR system in place. In such a case one could argue that there was a possibility
for the breeder to obtain a plant breeders right on that variety with the opportunity to act
against the propagation in that country.

However, the term “his right”, in Article 14(2) of the 1991 Act, relates to the breeder’s right in
the territory in which the breeder can act against the harvested material. Thus, “reasonable
opportunity to exercise his right” in relation to the propagating material means a reasonable
opportunity in the territory concerned to exercise his right in relation to the propagating
material. Furthermore, in particular, “reasonable opportunity to exercise his right” does not
mean a reasonable opportunity to obtain a right, for example in another territory.

This interpretation above of the UPOV CAJ Advisory Group has been confirmed by the
decision of the German Supreme Court of 14 February 2006, No. X ZR 93/04.

Additionally, the “exercise of his right” means that at the moment of bringing propagating
material on the market, the holder must take care to collect money or make a contractual
arrangement with the buyer. According to the minutes of the Diplomatic Conference of the
1991 Convention and its preceding papers this requirement was implemented because the
breeder should exercise his right only once and receive a royalty only once and should do so
at the earliest possible stage. This was decided upon to avoid uncertain situations for the
trade; e.g. where the holder permits free trade of propagating material and exercises his right
only on the resulting harvested material. However, the exercise of the right differs clearly
from enforcing the right.

ISF considers that the condition for the holder to exercise his right at each reasonable
opportunity should not require him to act against illegal reproduction of material in order to be
eligible to exercise his right on the harvested material resulting from such illegal,
unauthorized production.

However, because of different views, breeders should consider that there is a risk to not
enforcing their rights against illegal reproduction.

1.2.5 Provisional Protection
Article 13 of the 1991 Act of the UPOV Convention provides for provisional protection of the
breeder during the period between the filing or the publication of the application for breeder’s
right and the grant of that right. Article 13 also states that a Contracting Party may provide
that the provisional protection shall only take effect in relation to persons whom the breeder
has notified of the filing of the application.

The implementation of this latter provision varies from country to country and is sometimes
unnecessarily complicated and cumbersome to execute. ISF urges countries to agree on a
harmonized implementation of the provision and recommends that either the publication of
the filing in the official publication of the national plant variety protection office or the use of a
label with the mention “PVP pending” should be deemed sufficient to inform the professional
user of the existence of a filed PVP application.

1.3 Essential Derivation
1.3.1 Definition of essential derivation
An essential derived variety is a variety defined in the Article 14.5(b) of the 1991 Act of the UPOV Convention, which states that a variety shall be deemed to be essentially derived from another variety, the initial variety, when

i) it is predominantly derived from the initial variety, or from a variety that is itself predominantly derived from the initial variety, while retaining the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety;

ii) it is clearly distinguishable from the initial variety and;

iii) except for the differences which result from the act of derivation, it conforms to the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety.

Essentially derived varieties may be obtained, for example, by selection of natural or induced mutants, by selection of a somaclonal variant, by selection of variant individual plants in the initial variety, by backcrossing or transformation by genetic engineering.

1.3.2 ISF consideration on essential derivation

ISF strongly supports this concept of essentially derived varieties (EDV) which allows the new technological developments to be taken into account. It has also the potential to drastically decrease the risk of plagiarism in plant breeding. ISF also considers that this principle, whilst appropriately strengthening Breeder’s Right, does not restrict the breeder’s exception, a key feature of the UPOV Convention.

ISF is opposed to plagiarism: any act or use of material/technology in a breeding process that tries to purposely make a close imitation of an existing plant variety, because it does not contribute to plant improvement as such and should be seen as an abuse of the breeders exemption.

ISF has so far developed guidelines for EDV disputes of perennial ryegrass, maize, oilseed rape, cotton and lettuce. ISF notes that even if there are not yet international agreed-upon professional rules and usages for assessing essential derivation and for solving disputes for all crops, the concept has already greatly contributed to avoid infringement, breeders being more careful in their breeding programs.

The principle of essential derivation involves questions of scope of protection and enforcement of the rights of the breeder. It is, therefore, left to the initiative of the breeder to enforce these rights. ISF stresses that the determination of essential derivation is not part of the procedure of the granting of the Breeder’s Right. However, registration data of the varieties based on UPOV guidelines should be available after granting of rights to enable breeders to compare their varieties.

1.3.3 ISF interpretation on essential derivation

1.3.3.1 The technical aspect: the derivation

For a variety to be considered as essentially derived, it must fulfil three requirements in relation to the initial variety:

a) Predominant derivation from the initial variety (Article 14.5.b.i).

b) Clear distinctness in the sense of the UPOV Convention (Article 14.5.b.ii);

c) Conformity to the initial variety in the expression of the essential characteristics that result from the genotype or combination of genotypes of the initial variety (Article 14.5.b.iii);
ISF is strongly of the opinion that the definition of essential characteristics should not be restricted to a limited sub-set of DUS characteristics. NO AGREEMENT ON THIS PIECE IN YELLOW: THIS NEEDS FURTHER DISCUSSION IN IPC. TO BE MENTIONED IN BC.

If one of these requirements is not fulfilled, there is no essential derivation.

a). Predominant derivation

An essentially derived variety may have been predominantly derived from the initial variety or from a variety that has itself been predominantly derived from the initial variety. If we take the chain A-B-C-D, where A is the initial variety, variety B is predominantly derived from A and variety C is predominantly derived from B, then C will also be predominantly derived from A. If C meets the remaining requirements for essential derivation it will be regarded as an EDV from A. Furthermore, variety D, predominantly derived from C is also a variety predominantly derived from a variety that is itself predominantly derived from the initial variety and consequently should be regarded as an EDV from A if it is in conformity to A. Therefore it is possible to have an unlimited “cascade” of essential derivation. Whether any predominantly derived variety in such a case can still be considered as essentially derived from the initial variety will depend on the level of conformity that still exists between the derived variety and the initial variety.

Paragraph c of Article 14-5 further provides a non-exhaustive list of acts which can be regarded as potential acts of predominant derivation which may lead to the creation of EDVs if the other requirements - distinctness and a high degree of conformity with the initial variety - as set by the Convention are met. Usually it is understood that predominant derivation includes acts, by using the material of the initial variety, like selection of mutants or off types or backcrossing followed by selection.

Because of the continuous evolution of plant breeding techniques it is necessary to clarify the status of some new techniques under the ISF interpretation of the predominant derivation requirement. The collection of molecular data from the initial variety and the subsequent application of the obtained DNA profiles with the explicit intention to select for similar genotypes in a particular population, which is mostly related to the initial variety, may also be regarded as predominant derivation from the initial variety.

Therefore, for the purpose of EDV assessment, “predominant derivation” may result from:

i) The use of mainly the plant material of an initial variety for selection or (back) crossing followed by selection in the breeding process,

or

ii) The use of molecular marker data, collected from an initial variety, for the purpose of selection of genotypes close or similar to the genotype of the initial variety, or in the case of hybrids, close or similar to the genotype of its parent lines.

The wording “predominant derivation” implies there can be no more than one initial variety. This ISF position on predominant derivation does not modify the scope of the protection under UPOV 1991, and allows the EDV provision to evolve with the plant breeding techniques, while keeping the freedom to operate under the Breeder’s Exception.

b. Distinctness

Before assessment of essential derivation of a variety takes place it should be established that this variety is clearly distinguishable from the initial variety. Distinctness may be determined by DUS tests for protection and/or listing. The issue of non-distinguishable varieties is ruled under article 14.5(a)(ii).
c. Conformity to the initial variety

ISF is fully supportive of the statement in UPOV document IOM/IV/2 that an EDV will have a difference of only one or a few phenotypic characteristics compared to the initial variety. ISF is continuing to develop guidelines for various crops in which a genetic threshold is established in order to support EDV dispute procedures. If both phenotype and genotype of the putative EDV are found to be above the conformity threshold as set for the crop in question, the first requirement (1), "predominant derivation from the initial variety" has to be assessed.

As it can be very challenging for the owner of the initial variety to prove predominant derivation ISF strongly believes that it is necessary to reverse the burden of proof when there is a high degree of phenotypic and genetic conformity between the initial variety and the putative EDV.

The adjective "essential" before the noun "characteristics" has been left out as the terms "relevant", "important" and "essential" have been used interchangeably as synonyms by UPOV in various documents and definitions (see UPOV TG/1/3 Chapter 2 and 7). They mean not more or less than all the characteristics related to the description and the testing for distinctness, uniformity and stability of the variety in question, irrespective of their significance for the possible value of the said variety.

1.3.3.2 The legal aspect: the dependence

The principle of dependence only exists in favour of a non-essentially derived protected variety. This means that:

a) The initial variety must be protected (Article 14, 5, a, i);

b) The initial variety is not itself an essentially derived variety (Article 14, 5, a, i);

c) Dependence can only exist from one protected initial variety alone (Article 14, 5, b).

If one of these requirements is not fulfilled, there is no dependence. Each essentially derived variety shall only be dependent on one variety, the protected initial variety. Therefore: a cascade of dependence cannot exist.

Essential derivation is a question of technical fact, whereas dependency resulting therefrom is a potential legal consequence. Therefore, if a variety has been proven to be an EDV, it remains an EDV forever. When the protection period of the initial variety has been exhausted, all varieties derived therefrom remain essentially derived from that initial variety. But they will not be dependent from that no-longer-protected initial variety. The EDV’s in the chain will also not be dependent from each other. This principle has been introduced to protect the interest of the initial breeder.

1.3.4 Entry into force of the EDV clause

ISF is of the opinion that varieties that were of common knowledge before the date of entry into force of the new legislation should remain independent.

1.3.5 Interpretation and wording of the essential derivation

Although different wordings for the EDV concept have been implemented in some national laws, ISF is of the opinion that each such wording should be interpreted in a manner that is consistent with the principles embodied in UPOV 1991.

ISF considers that the original UPOV wording needs further clarification to avoid ambiguities.

as it is possible to find some ambiguities and discrepancies between the different indents.
As a contribution of the on-going discussion regarding a clearer wording of the EDV definition of Article 14.5(b) of the 1991 Act of the UPOV Convention, ISF proposes the following:

A variety shall be deemed to be essentially derived from another variety (“the initial variety”) when

i. it is predominantly derived from the initial variety, or from subsequent varieties that are themselves predominantly derived from the initial variety

ii. it is clearly distinguishable from the initial variety and

iii. except for one or a few characteristics it conforms to the initial variety in the expression of the characteristics that result from the genotype or combination of genotypes of the initial variety.

Each indent refers to each one of three technical components of the derivation:

i) the genotypic predominant derivation from the initial variety or subsequent EDV's;

ii) the clear distinctness in the sense of the UPOV Convention, and;

iii) the phenotypic overall conformity between the EDV and the initial variety.

Yellow piece above to be transformed into separate position paper after Rio 2012

1.3.6 The use of characteristics related to converted varieties

ISF understands that a converted variety is an essentially derived variety which has been obtained from a pre-existing variety by techniques such as gene transfer, multiple back-crossing or mutation leading to a new variety differing from the pre-existing one only by the newly included characteristic.

- In order to assess distinctness between the converted and the initial variety, ISF considers it necessary to comply with the UPOV principles stating that a variety is “defined by the expression of the characteristics resulting from a given genotype or combination of genotypes”. In addition, in accordance with the 1978 and the 1991 Acts of the UPOV Convention, ISF considers that in the distinctness assessment procedure only the inherent nature of the variety counts, without indicating the methods of development.

- Consequently only converted varieties having a clear phenotypic difference can be considered as distinct from the initial variety. If the differentiating characteristic is not included in the list of the UPOV characteristics, that characteristic should be added to the list by the Breeder’s Right office as an additional phenotypic characteristic, at the request and/or with the agreement of the breeder. The characteristic fulfills the basic conditions requested by UPOV.

- The following examples illustrate the ISF position:

A variety and its herbicide tolerant form to a given herbicide should be considered as distinct (assessment of distinctness should include the spray of the herbicide).

Two “identical” varieties tolerant to the same herbicide but through different mechanisms of tolerance should not be considered as distinct. This does not preclude the protection of the two different mechanisms by patents if the patenting criteria are met.

A male sterile line should be considered as distinct from its male fertile counterpart.

Male sterile forms of a variety obtained via for instance different cytoplasms should not be considered as distinct.
If the application for Breeder’s Right for a converted variety is filed by the owner of the initial variety or by an authorized licensee of the owner of this initial variety, and if the converted variety differs from the initial variety only by the introduced characteristic, then, a fast-track procedure for assessing distinctness should be possible. This procedure is already used for some species in certain countries and had proved its practical interest. If, during the procedure, other differences are discovered in addition to the introduced characteristics, then, the variety should undergo the normal DUS testing procedure.

1.4 Exceptions to the Breeder’s Right

1.4.1 Breeder’s exception

During the conference that led to the first UPOV Convention of 1961, the founding members agreed unanimously on “the principle of independence” as a basis for the Plant Breeders Rights system. This means that a new, distinct variety is independent from the varieties that were used to create this variety during the breeding process. At that time this was a strong deviation from the long existing Patent Rights system that is founded on “the principle of dependence”, meaning that if a patent is a further developed teaching of another patent, the later patent is dependent upon the first patent. For the founders of the UPOV Convention the principle of independence was considered to be important for the stimulation of innovation in breeding. This follows from the fact that breeding is by definition the creation of improved varieties by recombining existing varieties.

As an exemption to the general principle of independence the concept of “essentially derived varieties” was introduced in the UPOV Convention of 1991 (see further 1.4). The principle of independence was implemented in the so called “breeder’s exception” which is still one of the cornerstones of the Plant Breeders Rights system. The breeder’s exception, (article 15.1 (iii) of the UPOV Convention 1991 ) provides for an exception to the Breeder’s Right for "acts done for the purpose of breeding other varieties" and for the commercialization of the new varieties obtained, except if these new varieties are “essentially derived varieties”.

ISF understands the breeder’s exception in the way that a plant breeder can use, for further breeding, protected varieties in accordance with the UPOV Convention he has had obtained lawfully. The varieties should thus have been commercialized with the consent of the PBR holder. This does not mean that access and use of such protected varieties cannot be subject to restrictions under other international and/or national law.

As parental lines are very often not put on the market as such, some PBR offices argue that one of the conditions for granting Breeder’s Right to that kind of varieties should be that the variety be made available to third parties, on request, of the seed of the variety.

ISF opposes strongly that interpretation on the following grounds:

- Legally speaking to impose an additional condition for the granting of Breeder’s Right would be contrary to the UPOV Convention which states that no further or different conditions than in article 5 of the 1991 Act must be required. The parallel made with "enabling disclosure" in the patent laws is irrelevant, one of the main differences between Breeders’ Right and patents being in fact the breeder's exception.

- The objective of the breeder’s exception is to give access to PVP-ed genetic resources that are commercially available allowing their use for further breeding. In the case of hybrids, the genetic variability of the parent lines is available through the respective hybrids which are on the market. Breeding a distinct hybrid variety from a released hybrid variety needs more time and effort than using straight away a parent line in order to breed another valuable parent line. The latter would obviously be an infringement of the interest of the owner/original breeder of that first parent line, when
11.xxx
done by a third party. For that reason the breeder of the first parent line is not obliged
to disclose that parent line to other parties, even if it is protected by Breeder’s Right,
until the PVP protection for the hybrid is exhausted.

1.4.2 Farmer’s exception

From the start of agriculture farmers have saved seed from their own crops for re-sowing the
following year; there was no other form of seed supply. In fact that practice was normal and
indeed, in some places, is still essential in circumstances where the only seed available to
plant a new crop is seed harvested from a prior season on-farm harvest. Seed that is saved
by farmers from the growing of cultivars they have selected themselves does not impact the
rights of third parties.

During the 20th Century, scientific plant breeding based on accumulated new genetic
knowledge and new technologies has rendered the development of new varieties much more
efficient than in the past leading to the emergence of a new category of people, the
professional plant breeders. Those plant breeders have created and are still creating new
varieties used by an increasing number of farmers worldwide. The new cultivars integrating
more and more genetic variability, together with improved cultural practices have resulted in
a dramatic increase in food and fiber production.

The consequence of that necessary evolution is that plant breeding is no longer a by-product
of agriculture, but a separate activity as such.

In order to evolve step by step, the first UPOV Convention limited the scope of Breeder’s
Rights to the production, for commercial marketing, of the reproductive or vegetative
propagating material of the new variety, and for offering for sale or marketing such material.
The reproduction of propagating material for the use of these seeds on their own farm, but
not allowing the commercializing of the produced seeds fell outside the scope of the
Breeder’s Right. That was an implicit recognition of the so-called “farmer’s exception”.
“Farmer’s exception”, “farmer’s exemption”, and “farmer’s privilege”, are synonyms that refer
to an exception to the Breeder’s Right, pursuant to the first International Union for the
Protection of Plant Varieties (UPOV) Act agreed in 1961, and that were later included in the

Thirty years later, in 1991, the Convention was reviewed and the reference to “commercial
marketing” was cancelled, thus extending the Breeder’s Right to (i.a.) all acts of
(re)production with the propagating material. However, two exceptions to Breeder’s Right in
this respect were maintained:

- A compulsory exception for acts done privately and for non-commercial
  purposes, thus allowing seeds to be produced by subsistence farmers.

- An optional exception, within reasonable limits and subject to the safe-guarding
  of the legitimate interests of the breeder, of the Breeder’s Right in order to
  permit farmers to use for propagating purposes, on their own holding, the
  product of the harvest which they have obtained by planting, on their own
  holding, of the protected variety.

ISF members consider that strong and effective intellectual property protection is necessary
to ensure an acceptable return on a research investment and to encourage further breeding
and research that will be essential to meet the challenges mankind has to face in the coming
years, i.e. feeding an increasing population whilst preserving the planet.

The recommendation adopted by the Diplomatic Conference of 1991, indicating that the
optional exception “should not be read so as to be intended to open the possibility of
extending the practice commonly called “farmer’s exception” to sectors of agricultural or
horticultural production in which such a privilege is not a common practice on the territory of the contracted party concerned” must also be taken into account.

Farm saved seed of protected, proprietary varieties erodes incentives for further innovation and breeding by reducing the appropriate share of the created value to the breeders. Therefore, ISF believes that farm-saved seed of protected, proprietary varieties should not be permitted without reasonable remuneration to the breeder.

ISF members continue to support their position for improving the economic position of all farmers, including subsistence farmers, by facilitating their transition to increased productivity and economic well-being.

Private and non-commercial use of farm saved seed harvested from protected varieties by subsistence farmers should remain allowable.

1.4.3 Distinctness and Essential Derivation

The finally adopted definition of essentially derived varieties during the Diplomatic Conference of March 1991 is such that it could be possible to confuse the concepts of distinctness and essential derivation. This possibility would be increased if DNA markers were to be used to determine distinctness or if they were used prematurely without prior studies to help determine EDV status. The risk would be to have first overlap and then confusion of the two notions.

As it is clear that the two concepts are legally different, ISF considers that it would be a mistake to confuse them for the following reasons:

- the assessment of distinctness is based on clear difference between expressed characteristics resulting from the genome;
- the assessment of essential derivation is based on conformity of the expressed characteristics resulting from the genome;
- the question of distinctness is a question of granting the right whereas the question of essential derivation is a question of the scope of protection.

Furthermore, the decision of distinctness and then of granting the property title (if the variety is also new, uniform and stable) is the responsibility of official services, whereas the demonstration of essential derivation is the business of the holder of the right of the presumed initial variety.

For these reasons, ISF considers that:

- there are good grounds to maintain separately the two notions of distinctness and essential derivation;
- for these reasons, it is necessary as far as possible to use different tools for defining the two concepts; both DUS testing and EDV assessment are using phenotypic characteristics, but for the EDV assessment also genotypic comparison can be used;
- assessment of essential derivation could be based on variety origin, breeding methods, heterosis, appropriate phenotypic and/or genotypic characteristics.

1.5 Enforcement

Intellectual Property Rights are enshrined in law. They provide an economic and legal mechanism to reward innovation and are central to sustaining a vibrant and successful plant breeding industry. Whilst plant breeding may be the core activity of a company its actual
business is to create wealth by managing and commercializing the new varieties which constitute its Intellectual Property. As a result of infringements and weak ineffective IP management, losses to the global seeds industry are substantive. Infringement is prohibited by law and is a global problem. The OECD estimates the total value of trade in faked or infringed goods exceeds $200 billion dollars which is greater than the GDP of more than 150 countries. IP infringement is not victimless. In seeds and agriculture the consumer as well as the innovator is often the victim. This perpetual annual loss of income threatens the very existence of many diverse breeding programs whilst denying others their due reward for product innovation.

Regrettably many seed companies appear to accept a level of infringement as inevitable. They are frequently reluctant to sue infringers believing them to be loyal customers. They fear bad press and being accused of being heavy handed from farmer organizations and anti-IP NGOs. In all too many cases they are more concerned about these relationships than they are with upholding their Rights and protecting their IP. In short these companies are accepting infringement even at a cost to their own business. It is of course understandable that companies have a concern about their relationships with customers with many preferring to tolerate infringement rather than direct action.

In addition to the action from the Official bodies, one solution to overcome such difficulties is to establish independent and private organizations that take care of the interest of the breeder’s IP. Several examples exist, such as AGRI Inspect in South Africa, ARPOV in Argentina, BSPB in the UK, GESLIVE in Spain, the Canadian Plant Technology Agency, SICASOV in France, STV in Germany, and URUPOV in Uruguay. Such industry supported organisations act as an intermediated on behalf of individual breeders and this independence in some way shields companies from the detail of pursuing individual infringements. Such organisations have proven to be successful and it can be expected that this will be extended to other countries and to specific situations in order to curb infringement.

However, in order to educate stakeholders, the communication about the value of the intellectual property is essential, and should be a part of the enforcement efforts. Seed and genetics are not the same, and the distinction between tangible and intangible goods must be part of the core message to stakeholders.

The illegal reproduction and use of protected seed is one of the main challenges facing the seed industry.

In light of the technical nature of plant breeding legal disputes, ISF is of the opinion that countries should develop the relevant legal and technical expertise in the judicial system to resolve such matters. Where feasible, ISF recommends that courts should take advantage of the expertise that resides in official DUS testing institutions.

Arbitration is a preferred solution for disputes between seed companies. This can be facilitated through the dispute settlement rules as provided by ISF.

1.5.1 Main infringements of plant variety IP rights

1.5.1.1 Illegal sales of propagating material of the protected variety

This infringement could occur in all countries where plant varieties are protected either by UPOV plant breeders’ rights or by patent. Examples include:

- The sales of farm-saved seed by a farmer or the sales of seed illegally produced by a seed producer or a seed company. In general it is sold without the variety denomination. This is known as brown bagging.
- Varieties “stolen” by another company and sold under a different variety denomination
- Import of seed produced in a country where the variety is not protected
• The sales or production of cuttings or grafted plants, increasingly common in ornamentals and vegetables
• Unauthorized export of propagating material from a country where the variety is protected.

1.5.1.2 Illegal use of farm-saved seed

The use of farm-saved seed is mainly in open pollinated and vegetatively propagated varieties, such as cereals, pulses and potato. Farmers are increasingly using saved seed of F1 hybrids to produce F2 hybrids. The difficulty to gather information on a suspected use of farm-saved seed is linked to the complexity of the production and selling chain. In cereals, for example, it is as follows: the breeder provides basic seed to the seed producer with a right to produce. The producer produces the certified seed that is sold to a retailer who in turn sells the seed to the farmer. The breeder, consequently, has no information on the farmers who have used the seed of his variety and could be producing farm-saved seed the following year.

ISF believes that farmers should provide information on their use of farm saved seed of protected varieties. Mechanisms should be in place to allow breeders to gather the information necessary to obtain their remuneration.

The advice given to the breeder in order of priority is:

First and foremost understand that enforcement is a process that starts with the first point of sale. From this point

• Try and keep contact with the distributors and farmers (easier said than done)
• Provide basic seed to the producer under a contract with conditions of sales, either in the form of bag-tags or license agreements. These conditions of sales could require producers to provide information on the retailers and, by a so-called “perpetual cause” oblige the retailers to provide information on the farmers. The retailer may also be asked in this clause to put a statement on the seed bags that the variety is protected and that in case the farmer produces seed to be used on their own farm, that they are obliged to provide information to the breeder about the variety, the seed quantity to be produced and the area to be sown.
• The legality of such conditions of sales must be checked in each country. One of the legal objections that retailers reluctant to provide ‘sensitive client information’ could use is that the condition to provide information on farmers is “onerous”, damaging to their business interests and therefore not applicable. A solution to this potential problem would be to have the retailers send information on the seed of varieties purchased by farmers to an independent organization or person, which can then be provided to the breeders, subject to compliance with data privacy laws in the country. This step would decouple the retailer and the information.
• In case steps 1 and 2 are unsuccessful, the last solution is to gather evidence through private investigators of the use of farm-saved seed and non-payment of royalties. This is expensive and not easy but may be necessary from time to time to establish jurisprudence.

1.5.2 Illegal imports or export

The enforcement of IP rights in case of import or export is a complex issue depending on the interpretation of the exhaustion of the right of the titleholder. It is generally held that there is
no international exhaustion between countries except within some free trade zones. The situation must be checked on a case-by-case basis. Where there is no exhaustion of the right, the following acts, done without the consent of the title holder, are illegal:

- Import of seed into a country where the variety is protected
- Export of seed from a country where the variety is protected

In case of alleged illegal import or export the titleholder should take the following action:

- Collect evidence of the import or export
- Contact customs officials for seizure at the port of entry
- Ask for royalty payment or destruction of the seed

1.5.3 Conclusions

Enforcement of the intellectual property rights is the responsibility of the titleholder, who should:

- Operate effective conditions of sale with specific terms to cover and protect your IP
- Know precisely what the scope of the right is
- Endeavour to monitor from first point of sale
- Develop market intelligence
- Collect evidence of infringements
- And then take action against the infringers.

This is not an easy task but given the amount of money at stake certainly worth doing. In addition, not reacting to infringement is politically detrimental and is commercially damaging to the entire industry.

The establishment of independent and private organizations that facilitate the work of individual companies by taking care of the interests of breeders can be a good solution and the feasibility of this should be considered on a national basis.

Generally speaking intellectual property is poorly understood and this is a serious weakness. As an industry we must continue to educate all stakeholders, growers and influencers on the role and value of intellectual property. We must be prepared to evolve new systems which are appropriate for the country, species or situation. Above all we must uphold and enforce our bestowed rights.

2. Patents for Plant Related Inventions

Agricultural sciences especially in the area of plant breeding and genetics have significantly expanded in the last decades. Sophisticated methods of plant breeding and variety development based on advanced technologies such as DNA marker technology and genome sequencing have been developed, which enhance the possibilities for more precise and efficient breeding. These advancements have in many crops significantly shortened the product development cycle, and have created both new opportunities and challenges for the seed industry especially in the area of protection of intellectual property.

ISF considers that both plant breeder’s rights and patents are efficient protection systems, which are needed to stimulate the full scope of innovation in agricultural sciences. Both systems have inherent differences based on the nature of the innovation they protect.
Nonetheless, ISF considers that the preferred form of protection of varieties *per se* is through plant breeders rights.

In consequence, plant breeders are confronted with the opportunity and challenge of two main different, complimentary and overlapping IP systems with only limited opportunities for harmonization: Just as the requirements and conditions of the patent system (e.g., public availability of material and information) cannot be transposed to the PVP system, neither can the requirements and conditions of the PVP system (e.g., a general breeders’ exemption) be transposed to the patent system.

While the two systems – patent and PVP – cannot be fully harmonized, it is key to ensure a smooth co-existence. A key requirement for any IP system is to achieve the right balance between protection as an incentive for innovation and access to enable others to further improve and innovate. With regard to the interaction between patents and PVP this means, that both systems need to be carefully implemented to provide incentives for new innovation while continuing to encourage and ensure access to genetic variability and improvements. It also means that the benefit of the PVP system’s breeder’s exemption need to be preserved even if patented traits are involved.

The balance between access and protection is influenced by the scope and quality of patent claims, the length of patent protection, and exemptions to the patent right for research and breeding. While patents on GM crops are less controversial, patents on “native traits” and breeding methods are debated and may require new, creative solutions.

ISF is cognizant of the fact that understanding of IP systems in the seed area – both PVP and patents – and their respective use in licensing and enforcement requires continuing education and discourse among breeders and other stakeholders in patent and PVP offices, governments, NGOs and grower associations.

### 2.1 Scope of Patentability

**CHECK IF PARTS FROM THE INTRODUCTION SHOULD MOVE TO HERE.**

ISF believes that inventions relating to man-made traits (defined as “*traits introduced or modified in the genome by human actions such as man-made mutants or GM traits*”) and modern technologies should be eligible to patent protection.

ISF is cognizant of the fact that the area of patents on native traits (defined as “*traits based on naturally occurring genetics assembled in the target plant by crossing and selection*”) and traditional (biological) breeding processes is currently debated.

ISF is of the view that solutions need to be found which maximize the innovation potential – both for patentable inventions and new varieties. Such solutions should reflect the specific needs of a national or regional seed industry and its respective legislative system.

### 2.2 Prerequisites for Patentability

To maximize innovation through the grant of valid, high-quality patents, ISF favors rigorous application of the criteria for patentability and urges governments to give the necessary means in terms of human resources and skills to the patent offices and courts to allow for high—quality, fast and cost efficient examination and opposition procedures.

As for any area of technology, plant related inventions (including sequences or partial sequences of genes, or molecular markers) should only be granted a patent, if the same rigorous patentability criteria, namely novelty, industrial application and non-obviousness, are
fulfilled. In general, the results of routine work as conducted by traditional breeders should not be patentable. Inventive steps / non-obviousness require either a high burden for experimentation (i.e., difficulties to establish the invention) or surprising effects.

2.3 Scope and term of protection

The patent system has in many countries not yet been adequately adapted to protect living, self-reproductive material. Making copies of the patented subject matter, an activity usually restricted by the patent right, is an intended and expected use for propagating materials such as seed. Such an expectation may result in exhaustion of the patent rights after the sale of seed with regard to the next propagation of the seed. Efficient patent protection for biological material requires specific regulations regarding the exhaustion after sale to permit its intended use by customers as propagating material. ISF supports the approach in the EU Biopatent Directive (98/44/EC), which regulates that patent protection extends also to a product obtained through propagation or multiplication provided it possesses the same patented characteristics or – when it comes to genetic information – to all material in which the genetic information is contained and performs its function.

ISF is of the opinion that the duration of the patent right should be sufficient to allow a reasonable return on investment for the inventor. Therefore, ISF is concerned about the increasing regulatory efforts and times as well as costs required to obtain market approval for regulated traits and technologies which reduce the effective patent duration to an extent that endangers the ability to obtain a fair return on the investment. It should be considered to compensate for this loss of effective patent term by – for example – prolonging patent protection to a reasonable effective period (e.g. 15 years). This is especially critical when breeders’ exemptions are provided under the patent law, which enable competitors to start development activities during the patent term thereby further reducing the effective protection term.

2.4 Exemptions from the scope of protection

In ISF’s view certain exceptions from patent rights are necessary in the field of plant breeding to maximize overall the number of new innovations. Any such exception needs to strike the right balance between freedom-to-innovate (breed) and the incentive to innovate and should follow the guideline provided in Article 30 TRIPs i.e. they should “(i) not unreasonably conflict with a normal exploitation of the patent and (ii) do not unreasonably prejudice the legitimate interests of the patent owner, and (iii) taking account of the legitimate interests of third parties.”

For the seed industry both a general research exemption and a specific breeders’ exemption in patent laws should be considered. While the PVP laws provide such exemptions in a consistent way, research exemptions in patent laws are not harmonized and breeders’ exemptions in patent laws are rare exceptions being currently available in only a few countries.

2.4.1 Research Exemption

ISF supports a balanced research exemption which allows for research on (but not with) patented inventions. Research needs to be dedicated to the creation of new knowledge on, or an improvement of, the invention. While it should be permitted to further improve inventions, mere use as a research tool should not be permitted. In that, the area of plant related innovations should not be treated different than other areas of technology. A research
exemption can exist in parallel to a breeders' exemption and should not limit such breeders’ exemption's scope.

**CHECK FOR PROPER USE OF EXCEPTION VS EXEMPTION**

**2.4.2 Breeders' Exemption**

Breeding and developing new varieties may not qualify as “research” and may require a specific breeder's exemption in addition.

A plant variety which is subject to patent protection may comprise two protectable aspects:
- A gene or trait, which can be patented in several legislations, and
- The genetic background, which in most countries can be protected by plant breeders rights. The genetic background can also be patented in some countries but in practice this has only occurred, to date, in the US.

Breeding with a commercialized plant variety comprising a patented gene or trait and non-patented genetic background, should not be considered an infringement of the respective patent on the gene or trait *

If a new plant variety, resulting from that breeding, is outside the scope of the patent claims, it should be freely exploitable by its developer. However, if the newly developed variety still falls under the scope of the patent claims, no commercial acts (as defined in article 14.1 of the UPOV 1991 Convention) should be done with the new variety without consent of the patent holder. To compensate the patentee for loss of effective patent term for the patented trait, mechanisms should be in place to ensure a minimum of 15 years effective patent protection (see 2.3).

**FOOTNOTE *: PLEASE NOTE THESE PRINCIPLES ALSO APPLY TO THE USE OF PLANT MATERIAL COVERED BY PRODUCT BY PROCESS CLAIMS.**

**2.4.3 Infringement and Low Level Presence of Patented Gene**

There is legal uncertainty regarding the IP consequences of a low level presence of seeds with patented traits or genes. ISF holds that incidental contamination should not constitute IP infringement.

[Stewardship for GM traits need to be ensured. WE NEED TO CONSIDER SEPARATING THE REGULATORY FROM THE IP. MOVE TO SMALL §: ‘PLEASE BE REMINDED THAT...’]

**2.4.4 Farm-saved-seed from varieties with a patented element**

In general ISF does not endorse any exemptions for farm-saved-seed (FSS) whether under the PVP or the patent law. However, if a legislator chooses to provide a FSS exception for patents, it should be enforceable to allow breeders to obtain reasonable remuneration. The same principles as elaborated in 1.5.2 should apply to any FSS exception for patents.

With regards to regulated traits there are additional stewardship issues (see xyz).

**2.5 Patent Information**

In view of the increasing impact of patents on commercialized varieties and the difficulty that breeders have in determining which patents cover which varieties ISF is of the opinion that information regarding Patent rights applicable to commercialized varieties should be easily and publically available (either through a public source or through the IP holder).
2.6 Licensing

ISF is not in favor of compulsory licensing. However, ISF acknowledges the principle of compulsory licensing in case of public interest as provided for in patent laws.

ISF encourages contractual voluntary licensing under fair, reasonable and non-discriminatory (FRAND) terms.

3. Plant Genetic Resources for Food and Agriculture

THE CHAIRMAN OF IPC IS DRAFTING A REVISION OF THIS CHAPTER 3 AIMED AT SHORTENING THE TEXT, WHILE KEEPING THE SPIRIT.

3.1 The need of Plant Genetic Resources

In the past 10,000 years, since the origins of agriculture, farmers have selected crop cultivars from the genetic diversity available to them. They molded genetic resources over centuries through phenotypic selection, allowing and even facilitating genetic exchange between cultivars and weedy relatives, and by transporting cultivars from one region of the globe to another. By incorporating and re-mixing genetic diversity in new varieties, modern plant breeding has created more variation in food crops than has ever been available to farmers and consumers. 1)

All nations are strongly dependent on each other in terms of genetic resources. Each nation grows or imports food crops whose centre of diversity lies outside their national boundaries, and are thus inherently dependent on multiple and foreign sources of germplasm. The historic widespread use of plant genetic resources for food and agriculture is evident in the ancestry of individual crop varieties. Farmers and breeders have traditionally relied on open access to these genetic resources. 1)

Plant genetic resources that are exchanged and used in a successive and continuous release of improved varieties through plant breeding have brought and continue to bring great benefits to society. While the commercial value of plant genetic resources per se is relatively small, their potential value when used in agriculture makes it essential to conserve them. This is so even if advances in biotechnology, viz. a better knowledge of the plant genome and the use of a few model plants such as Arabidopsis thaliana, were to render them less necessary. 1)

The development of new varieties is essential to increase the productivity of food crops to match the growing world population. While new technologies may allow plant metabolism to be improved thereby rendering access to new plant genetic resources less important, it also allows a better use of genetic resources. 2)

Any genetic material of plant origin that is of potential value for creating improved germplasm is a plant genetic resource. FAO categorizes them into wild and weed species, closely related to cultivated species, landraces, special genetic stocks including elite and current breeders’ lines, cultivated and obsolete varieties. Not all genetic resources have the same immediate utility. Public or private breeders, for instance, mostly use germplasm from adapted and productive commercial varieties in the creation of new varieties. 2)

The maintenance of genetic resources requires the active involvement and support of governments. It is indeed like education, a long-term activity measured over decades and therefore of public interest. To place such a burden on the various agricultural sectors such as the agro-food industry, farmers and breeders would be counter-productive in the struggle against hunger and malnutrition. 2)

3.2 International treaties
3.2.1 The Convention on Biological Diversity (CBD)

Farmers and breeders have traditionally relied on open access to genetic resources, including improved commercialized varieties protected under the UPOV Convention. However, with the entry into force of the CBD the sovereign right of nations to control access to their biological diversity has received formal recognition and complicated access to genetic resources.²

The approach mandated by the CBD – “prior informed consent” (PIC) and on the basis of “mutually agreed terms” (MAT) with “countries of origin” – are, due to the complexity and the high costs of negotiations, the establishment of agreements and the difficulty to find the correct authorities or communities to deal with, not best suited to the majority of plant genetic resources used for food and agriculture. Such bilateral agreements on access are therefore detrimental to their use and conservation. Public research and small breeding companies in developing countries are particularly at risk, as an overwhelming majority of all germplasm from gene banks is accessed by them.¹ Bilateral approaches through the CBD may be appropriate when a small number of countries or companies need access to a particular species or group of species, and/or when highly expensive and specialized research gives a strong competitive advantage to an institution.²

ISF expects its members to respect the laws of all countries in which they operate. However, the CBD is being implemented by different countries at different rates and in different ways. Most countries have neither put in place a requirement for PIC with appropriate mechanisms for obtaining it, nor stated definitively that they will not require it. Demanding evidence of consent to access in these countries imposes the Intellectual Property protection applicant a condition that cannot be fulfilled. Furthermore, most biological inventions are made with biological material to which the inventor has legitimate access without any prior access agreement. For these reasons, ISF cannot accept any universal requirement to demonstrate Prior Informed Consent in Intellectual Property protection applications.³

The CBD is also debating a certificate of origin, source or legal provenance that would be required to guarantee benefit sharing once genetic resources had left the provider country. ISF is not in favor of such a certificate, as neither its need nor true value has been demonstrated. The complex parentage of genetic resources used for plant breeding and the continuous recombination of genes render its implementation impractical.⁴

ISF proposes to solve this problem by providing information on the “source” of the biological material, i.e. that the applicant should be obliged to say from where he/she obtained the material. Normally he/she knows and is allowed to indicate this with possible exceptions:

- In the breeding community, one reason why the source could not be known is that the biological material comes from the breeder’s nursery and that there is no record of the original source;
- Sometimes the biological resource has been received in the frame of a confidential contract and the disclosure of the origin would be a breach of that contract.

If the applicant does not know the “source” of the material, or is not allowed to disclose it by contractual agreement, he/she may reasonably be asked to explain why not.⁵

The International Regime (IR) for access and benefit sharing in the CBD will by its complexity and bureaucracy not be usable for breeders. Therefore ISF urges the parties to recognize the International Treaty (IT-PGRFA) with its multilateral system as the only mechanism for a practical implementation of access and benefit sharing for all crops where breeding is applied.
3.2.2 The FAO International Treaty on Plant Genetic Resources for Food and Agriculture (PGRFA)

The future of agriculture depends on international cooperation and on expanding the exchange of crops and their traits that farmers and breeders all over the world have developed and exchanged over years. Since all countries and regions of the world today are strongly interdependent in their use of genetic resources for food and agriculture, ISF supports the PGRFA that the FAO Conference adopted in November 2001 (the “Treaty”). This legally binding Treaty covers all plant genetic resources relevant for food and agriculture and is in harmony with the CBD.

Through the Treaty, which came into force on 29 June 2004, countries have agreed to establish an efficient, effective and transparent Multilateral System to facilitate access to plant genetic resources for food and agriculture, and to share the benefits in a fair and equitable way. Genetic resources may be obtained from the Multilateral System (MS) for utilization and conservation in research, breeding and training.

Multilateral approaches offer opportunities for developing common and cost-effective conservation strategies, and for coordination and mutual support among partners. It offers participants access to a far greater range of germplasm than is generally possible in bilateral arrangements. Thus, it is preferable for crops with a wide geographical distribution. This advantage is even greater if one considers multilateral agreements covering a range of crop species.

The Treaty provides a legal framework that not only recognizes the need for conservation and sustainable use of PGRFA but also delineates a regime for access and benefit sharing. For the most important food crops the Treaty establishes a Multilateral System that facilitates access and tempers the concept of national sovereignty with the recognition that all countries depend largely on PGRFA originating in other countries, thereby implicitly affirming the scientific and historical soundness of the “common heritage” approach.

ISF strongly supports the Multilateral System and the principle of the Standard Material Transfer Agreement (SMTA). Successful implementation of the Treaty depends on the degree to which the SMTA is acceptable in practice for seed companies to utilize material.

The main concerns of the seed industry are linked to the absence of threshold for the level of incorporation of accessed material in the final product, and to ambiguity as regards the duration of benefit sharing in case of restrictions for further research and breeding.

[Comment A. van den Hurk: It is stated that the seed industry has concerns with the absence of a threshold. I wonder if this is a concern and in what context. In the negotiations of the SMTA we lobbied for a threshold. This was unfortunately not reached. The fact that the SMTA now defines any incorporation as incorporation does not seem to stop companies to sign SMTA’s, at least in the Netherlands.]

ISF looks forward to the implementation of the Treaty. It is

3.3 Implementation of the International Treaty on PGRFA

Although disputed phrases such as “their genetic parts or components” and “in the form received” in Article 12.3.d of the Treaty still need to be clearly defined, ISF believes that genes or molecular sequences isolated from the accessed plant material should not be considered “in the form received”. ISF looks forward to the implementation of the Treaty. It is
in favor of facilitated access to PGRFA as an important source of breeding material for use in the development of new varieties of plants and supports the principle of equitable sharing of the benefits arising from the commercialization of these new varieties. 2)

According to the Treaty, mandatory monetary benefit sharing occurs when a product is commercialized, except that whenever such a product is available without restriction to others for further research and breeding (Article 13.2.d (ii) of the Treaty).

Thus, the triggering conditions for mandatory monetary benefit sharing are commercialization and proven non-availability of the product for further research and breeding. If one of these conditions is not fulfilled, there is no mandatory monetary benefit sharing, in addition to the benefit sharing by technology transfer. 2)

For these reasons ISF interprets critical parts of articles 12 and 13 as follows:

- Commercialization triggering benefit sharing means the sale or licensing for sale of the propagating material of that new product, by the person or his successor in title or possession having received the material from the MS and having developed a new product incorporating part of the received material.
- The deposit of an application in order to obtain intellectual property protection cannot be considered as commercialization, as it does not involve any commercial act and does not generate any commercial benefits.
- Incorporation of material accessed under the MS means any transfer of genetic parts or components of the material accessed under the MS pursuant to the terms of the MTA, be it through crosses or genetic engineering into a new product.
- Different processes for incorporation may be taken into account when determining benefit sharing, such as:
  - Crossing the material received with other genetic resources
  - Transfer of one or several traits isolated from the material received to other genetic resources.
- It is not possible to claim any intellectual property or other rights that limit the facilitated access to the PGRFA, or their genetic parts or components, in their form received from the MS.
- It is possible to claim intellectual property or other rights that limit access to the genetic parts or components isolated or inherited from the material received, provided of course that the patentability criteria are fulfilled and in particular the utility one in case of patent. A genetic sequence as such, without proved industrial activity, should not be patentable. However, the rights granted should in no case limit access to the initial genetic material.
- Any other interpretation would be inconsistent within art. 13 that states, “A recipient who commercializes a product that is a PGRFA and that incorporates material accessed from the Multilateral System, should pay […] an equitable share of the benefits arising from the commercialization of that product, except whenever such a product is available without restriction to others for further research and breeding”. This clearly means that a person who has incorporated material accessed from the MS into a product that is a new PGRFA may claim property rights or other rights that limit access to that new PGRFA.
- The MTA ensures the application of Article 12.3 through the literal incorporation of the Article 12.3(a), (d), (f) and (g) in it. 5) 6)

[Comment A. van den Hurk: the text of the bullets seems right, but I am not sure why all these points should be mentioned. I don't see the contribution at this stage. The text seems to refer to articles of the Treaty. This does not seem to be relevant any longer now the sMTA is in place.]
3.4 Farmer’s Rights

In today’s industrialized and urbanized societies almost all agricultural production is undertaken by farmers who specialize in production using seeds that have been developed by plant breeders. At the same time many farmers, particularly in developing countries, continue their traditional practices of seed saving and exchange for their seed supply; and in so doing also play a role in distributing germplasm and exploiting genetic resources.

Thus, plant genetic resources can be explored, characterized and developed by plant breeders and exploited by breeders and farmers at the same time that they are being conserved, both in situ and ex situ. Therefore, as a means of supporting sustainable use ISF fully supports an access and benefit sharing system that respects intellectual property, whether the intellectual property is created by farmers or by plant breeders in the public or private sectors.  

The so called “farmer’s right” mentioned in the Treaty is in no way related to the farmer’s exception (also known as “farmer’s exemption or farmer’s privilege) of the UPOV Convention. Although it was not referred to as such at that time, the background of the “farmer’s right” concept can be found in how the issues of the conservation, use and availability of plant genetic resources were addressed in the 1983 FAO International Undertaking on Plant Genetic Resources. In fact, the “farmer’s right” issue arose in the subsequent discussions within the FAO and from the potential inconsistency between availability of plant genetic resources as common heritage of mankind and the breeder's private right of intellectual property. After the CBD (1992), a series of discussions held within the FAO would ultimately result in the treaty (PGRFA), which was approved in 2001 and entered into force on June 29, 2004. This Treaty acknowledges the contribution of farmers to the conservation, improvement and availability of such resources, and the farmer’s rights are indeed based on that contribution.

There is neither an inconsistency between the “farmer’s right” of the Treaty and the breeder’s right set out in the UPOV Acts, nor an ambiguity between the farmer’s exception (UPOV) with the “farmer’s right” (Treaty).

First, while the breeder's right gives rise to an international obligation of the States that signed the TRIPS, the FAO Treaty expressly left the implementation of the “farmer’s right” in the hands of national governments; thus, the application of such rights does not constitute an international obligation.

Secondly, the breeder’s right is an exclusive right granted to the breeder by the State, whereby the breeder is able to prevent any other person from creating, using or selling his own new plant variety for a certain period. Such new plant variety must unequivocally meet the following requirements: new, distinct, uniform and stable. On the other hand, the “farmer’s right” acknowledges the work of the farmers expressly for the opposite reason, i.e. because of their contribution to maintaining the diversity of cultivated plants existing in nature (not arising from human intellectual creation), which are preexistent (not new or distinct) and biodiverse (not uniform or stable). This allows farmers or farmers’ communities to be granted an exclusive right for their varieties which they can capitalize as they wish. This means they can decide under what conditions other users are allowed to (re)produce and/or exchange seeds of their varieties.

A difficulty in regard to farmers’ varieties is that in many countries the marketing of these varieties is only allowed if varieties are registered on the national marketing list. For a variety to get on such a list, it needs to fulfill the DUS (and sometimes VCU) criteria. These marketing requirements should be seen completely separate from the Intellectual Property Rights regime and fall under the competence of national (or regional) authorities. ISF supports the approach of the European Union in this regard where the marketing of these varieties is dealt with in a separate marketing regime for conservation varieties.
Third, the farmer’s exception is an exception to the breeder’s right, aimed at enabling farmers to set aside and use seed from a protected variety in their own land. The farmer’s exception relates to the use of modern plant varieties protected by plant breeders’ rights and only by professional farmers. As soon as the activities of a farmer account as private or non-commercial the saving of seeds of protected varieties would be allowed without restrictions under article 15.1 (i) UPOV’91 (see also 1.5.2.). On the other hand, as regards the “farmer’s right”, article 9 of the FAO Treaty expressly acknowledged the implementation of a system to enable farmers to “save, use, exchange and sell farm-saved seed propagating/material subject to national law and as appropriate.” Clearly, according to the letter and spirit of this article, the FAO Treaty acknowledged that each State has its own domestic needs and priorities, as well as legal obligations arising from other international agreements or conventions that were adopted by such State. Since most of the States have ratified the WTO and the UPOV International Treaties that protect new and distinct plant varieties, it is evident that the existence of property rights is an express limitation to the “farmer’s right“ defined in the FAO Treaty.

In other words, all seeds of any plant species constitute plant genetic resources, and such seeds can be freely used by the farmers under the seed trade regulations in force in each particular country. The seeds from modern plant varieties protected by a breeder’s right or by other intellectual property rights are also included in those plant genetic resources from the time when the varieties are marketed. However, in this case, the use of those seeds by the farmers is subject and shall be governed by the national legislation on intellectual property.

[Comments A. van den Hurk: this chapter should be further elaborated is the explanation of farmers’ rights and the explanation of Article 9.3. I would suggest to get some input here from Mr. Herrlinger from the BDP as well, as he made a legal analysis of the article.]

WATCH FOR DECLARATION FOR SOURCE AND ORIGIN

3.5 Conclusions

With respect to the future use and conservation of plant genetic resources for food and agriculture ISF:

- Supports [the International Treaty on PGRFA] [all kinds of breeding efforts] and access to genetic resources for food and agriculture through the Multilateral System;

- Demands that the International Treaty is recognized by the CBD-International Regime protocol as the overriding mechanism for ABS in relation to all PGRFA.

- Urges the expansion of the list of crops under the Multilateral System to all crops where breeding occurs

- Is not in favor of a certificate or origin but proposes to solve the problem by providing information on the ‘source’ of the biological material.

- Recommends a far stronger government support for the conservation of genetic resources for food and agriculture.

- Requests that conditions for access and benefit sharing for germplasm of all species not yet covered by the Multilateral System will be governed by an MTA similar to that of the International Treaty.

- Underlines that the farmer’s exception, exemption or privilege, on the one hand, and “farmer’s rights” on the other hand, are different concepts that cannot be mixed up;

- Sustains that the “farmer’s rights” as set out in the FAO Treaty does not override the intellectual property rights arising from the breeder’s right of the UPOV Convention or vice versa.
- Secures that the breeder’s right of the UPOV Convention and the “farmer’s rights” as set out in the FAO Treaty, are complementary to each other \(^9\).

Notes

1) Plant Genetic Resources for Food and Agriculture, Christchurch, May 2007
2) Plant Genetic Resources for Food and Agriculture: Use and Conservation, Santiago, June 2005
4) ISF Position on Access to Plant Genetic Resources for Research and Breeding, October 2008
5) Interpretation of Article 12.3(d) of the International Treaty on Plant Genetic Resources for Food and Agriculture.
6) ISF Contribution to the Establishment of a Material Transfer Agreement (MTA) for the Multilateral System (MS) of the International Treaty on Plant Genetic Resources for Food and Agriculture
7) Farmers Rights, Antalya, May 2009
8) The remaining chapter is almost entirely based on the articles “Farmer’s exception, farmer’s rights and other related issues”, by Miguel Rapela, Seed News, Year XIV, Number 1, January/February 2010
9) Miguel Rapela, ibid