

APSA Position on Intellectual Property Rights For the Seed Industry

More than half of the world's population lives in the APSA (Asia and Pacific) region, with the majority directly or indirectly engaged in agriculture. Most of these farmers have smallholdings and practice subsistence agriculture. Sustainable food production is the key issue in feeding this large population of this region and would need innovative research in order to provide performing varieties to farmers that can ensure sufficient income for their families.

- a. ***Plant Variety Protection***: With increasing demand for food, feed and fiber to meet the growing population, there is an urgent need to have innovative breeding and research in important crop plants, especially for securing food and nutritional security. APSA recognizes the UPOV Convention and the Act of 1991 as the best system of plant variety protection. APSA encourages countries in the region to ratify and implement the 1991 Act of the UPOV Convention.
- b. ***Why IPR***: Effective IPR system balances protection as an incentive for innovation and access to enable others to further improve plant varieties. Plant breeders' rights (PBR) with breeder's exception, allows the use of protected varieties for further breeding without the authorization of the breeder.
- c. ***Plant Breeders' Rights and other related international agreements***: APSA believes that legislations on plant breeders' rights, the Convention on Biological Diversity (CBD), the Nagoya Protocol and the International Treaty for Plant Genetic

Resources for food and Agriculture (ITPGRFA) should be coherent and mutually reinforcing and should be dealt separately from the legislations on CBD, Nagoya Protocol and ITPGRFA.

- d. ***Distinctness, Uniformity and Stability (DUS)***: APSA recognizes the novelty and distinctness, uniformity and stability (DUS) system of UPOV and that each variety should be designated by suitable denomination for protection across the APSA region. Countries in the region should harmonize the DUS characteristics of different crops. The registered denominations together with the variety descriptions should be made readily available by the national authorities of all the countries in the region in order to provide more transparency with respect to the protected varieties.

(Notes: A variety shall be deemed to be *distinct* if it is clearly distinguishable phenotypically from any other variety whose existence is a matter of common knowledge at the time of filing of the application; *uniform* if subject to the variation that may be expected from the particular features of its propagation, it is sufficiently uniform in its relevant characteristics; and stable, if its relevant characteristics remain unchanged after repeated propagation.)

- e. ***Pest and Disease Resistance***: APSA believes that pest and disease resistance characteristics should be part of DUS testing and should be clearly defined, as appropriate. Countries in the region should have tests for disease identification and resistance nomenclature and they should be standardized across the region.

(Notes: Pest and disease resistance characteristics are within the scope of DUS testing. A degree of resistance needs to be clearly defined including race specificity. According to APSA, in order to establish the distinctness, the characteristic of disease resistance should also be documented and brought into the UPOV DUS guidelines. Considering the importance of disease resistance breeding in Asia, APSA supports the need of standardized tests and DUS characteristics to be adopted for all disease resistances in various crops and disease codes introduced as per the guidelines of ISHI.)

f. **DNA Markers:** APSA advocates the use of DNA markers for variety identification for the purpose of enforcement of IPR laws. DNA markers may be useful in establishing genetic similarities between initial varieties and Essentially Derived Varieties (EDV's). APSA encourages the countries in the region to adopt a harmonized approach and develop common protocols for the use of DNA markers. The APSA countries governments shall actively participate in UPOV efforts to develop capacity in this area.

(Notes: Use of DNA markers for variety identification and genetic similarity are within the scope of UPOV. DNA based markers can be advocated for variety identification purposes including enforcement of IPR besides use in establishing genetic similarity between initial and essentially derived varieties. The UPOV also accepts use of marker data to help manage the reference collection. This technology can be employed in DUS testing if capable of fully predicting DUS characteristics. However, the use of DNA based markers alone for establishing DUS, could significantly undermine the strength of protection.)

g. **Essentially Derived Variety (EDV):** APSA recognizes the concept of EDV as prescribed in the 1991 Act of the UPOV Convention. A variety is considered as essentially derived, if it is a predominantly derived from the initial variety. The variety should be clearly distinct from the initial variety and conform to the initial variety in the expression of the essential characteristics that result from the genotype of the initial variety.

(Notes: A variety shall be deemed to be essentially derived from another variety ('the initial variety') when, 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 and is clearly distinguishable from the initial variety, and except for the difference 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 by the selection of a natural or induced mutant, or of a soma-clonal variant, the selection of a variant individual from plants of the initial variety, backcrossing, or transformation by genetic engineering. The above mention techniques and methodologies used to obtain EDV are not exhaustive.)

h. **Period of Protection:** APSA supports the duration of breeders' rights under the 1991 Act of the UPOV Convention, under which the protection is granted for a period of at least 20 years from the date of granting.

(Notes: The breeder's rights are granted for a fixed period. Under the 1991 Act of the UPOV Convention, the period is not less than twenty (20) years from the date of the grant of the breeder's rights. For trees and vines, the said period is not less than twenty five (25) years from the said date.)

- i. ***Protection of Parental Lines:*** Inbred lines used for making hybrids and which are not commercially sold, should not be used for further breeding without the consent of its owner.

(Notes: APSA supports the interpretation of UPOV Convention that the commercialization of a hybrid does not affect the novelty of the respective parental inbred lines. Protecting parental lines will ensure derived EDV's protection from those parental lines.)

- j. ***Farmers' Privilege:*** APSA supports the '*Farmers' Privilege*' as provided in 1991 Act of the UPOV Convention, under which these activities including '*subsistence farming*', which constitute acts done privately and for non-commercial purposes, are excluded from the scope of the breeder's right, and farmers who conduct these kinds of activities freely benefit from the availability of the protected new varieties. APSA supports the optional exception, where each country of the region may within reasonable limits and subject to the safeguarding of the legitimate interests of the breeder of a protected variety allow farmers to use their own seed on their own farm but not for the purpose of 'across the fence' sales.

(Notes: Prior to the 1991 Act of the UPOV Convention, the scope of plant breeders' rights was limited 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 by using these seeds on their own farm, but not allowing commercialization of the produced seeds, was not covered. The 1991 Act extended the plant breeder's rights to *inter alia* cover all acts of reproducing the propagating material, with two exceptions, namely, compulsory exception for acts done privately and for non – commercial purposes, thus allowing seeds to be produced and used by subsistence farmers; and farmer's exception (also referred as 'Farmer's privilege' or 'farm saved seed'), as described in Art. 15 (2) of the Act, which can permit farmers within reasonable limits and subject to the safe-guarding of the legitimate interests of the breeder, 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.)

k. **Patents:** APSA believes that there is a role for patents in the region, as a means of adding value to innovations. APSA supports that there should be a robust patent system, supported by active participation of the seed industry in providing guidance for the patent examination process, *per se*. APSA believes that patents should not be applied to essential biological processes and native traits, so as not to restrict access to genetic resources and retard innovation. APSA believes that the 'Breeders' Exemption' should apply in cases where genetic material contains patented traits. If the patented trait is required for commercialization of the new variety, then APSA believes that a license needs to be obtained from the owner of the patent.

(Notes unlike Plant breeder's rights, patents do not provide "the breeder's exemption", namely free access to the protected genetic materials by breeders. Thus, the plant materials that contain a

patented trait cannot be used for further development of new varieties without permission of the patent holder. There is always uncertainty whether the patent holder is willing to make the license available to others.

Innovation in genetics and breeding including new technologies and access to genetic resources are essential for increasing sustained food supply.)

- I. **Plant Genetic Resources:** APSA considers access to genetic diversity as critical to innovation and plant breeding. APSA believes that there are various systems to deal with access to genetic resources and favors the use of the ITPGRFA for all plant breeding activities and for all plant species. APSA believes that all the countries in the region should ratify and implement the ITPGRFA. However, APSA suggests that improvements in the Standard Material Transfer Agreement (SMTA) should be made. Benefit sharing from the products not available for research and breeding derived from MLS can only be triggered if the product:
 - Incorporates at least 3.125% of the plant genetic resource for agriculture from the multilateral system (MLS) by pedigree (5 crosses) and / or,
 - Incorporates a trait of value derived from the plant genetic resource for agriculture of the multilateral system.

To avoid perpetual payment obligations, APSA proposes to include limitations in the duration of the payment.

(Notes: The ITPGRFA, which in harmony with the Convention on Biological Diversity (CBD), provides for the conservation and

sustainable use of Plant Genetic Resources for Food and Agriculture (PGRFA), delineates a regime for access and benefit sharing for those resources. For many important food crops the Treaty establishes a Multilateral System (MLS) that facilitates access to those materials that have been placed within it and is designed to operate on the principle that countries are interdependent on PGRFA, thereby implicitly affirming the scientific and historical soundness of the “common heritage” approach.

In creating the Multilateral System for PGRFA the Treaty provides facilitated access to genetic resources (of an agreed list of crops in Annex 1 of the Treaty) and specifies conditions for benefit sharing. Articles 12.3(a) through (h) of the Treaty acknowledge the applicability of intellectual property rights. APSA interprets and supports the article 12.3(d) as follows:

- 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 Multilateral System.

- 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 that the criteria for the granting of the respective intellectual property right and ITPGRFA requirements are fulfilled. IP rights, where granted, should not limit access to the initial genetic material.

- Varieties protected by PBR are available without restriction for further breeding and demonstrate a contribution to Access and Benefit Sharing.

APSA urges the expansion of the list of crops in Annex I of the ITPGRFA to include all crops where breeding occurs and other genetic resources utilized in breeding these crops.)

A harmonized IPR system based on the 1991 Act of the UPOV Convention will encourage countries in the Asia and the Pacific region to continuously deliver innovative genetics to farmers and to provide APSA members the incentive to invest more in breeding and innovative technologies.