

Right 5: Farmers' recognition and reward for contributing to conservation [Section 39(i)(iii) & Section 45(2)(C)]

The Act has provision to reward and recognize the Individual farmer/s or farming and tribal communities for their role in conservation of varietal wealth of crop plants and contribution to Plant Genetic Resources (PGR) development. Awards to the farmers have been installed. The Authority confers the "Plant Genome Savior Community Award" annually on the basis of shortlisting and site verification of the applications received from the community of farmers/farming community based organizations who have a long track record for conserving plant agro-biodiversity. There shall be maximum of five awards in a year, consisting of a cash of Rs. Ten lakhs each, a citation and a memento. There shall be maximum of 10 rewards (comprising of citation, memento and cash of Rs. One lakh Fifty Thousand each) in a year. There shall be maximum of 20 recognitions (consisting of a citation, memento and cash of Rs. One lakh each) in a year.

Right 6: Registration of farmers' varieties Right [Section 39(1)(iii)]

The PPV&FR Act allows for the registration of existing farmers' varieties that fulfill requirements for distinctness, uniformity, stability and denomination, but does not include that of novelty. This right provides opportunity to the farmers for a limited period of time, from the moment when a crop species is species is included in the crop portfolio under the PPV&FR Act for registration. Once registered, these varieties are entitled to all PBRs.

7: Prior authorization for the commercialization of essentially derived varieties [Section 28 (6)]

When farmers' varieties, whether extant or new, are used by a third party as source material for the development of an essentially derived variety, the farmers need to provide prior authorization for its commercialization. Such a process can allow farmers to negotiate the terms of authorization with the breeder, which may include royalties, benefit-sharing, etc.

Right 8: Exemption from registration fees for farmers [Section 44]

Under PPV&FR Act, farmers have the privilege of being completely exempted from payment of any kind of fees or other payments that are normally payable for variety registration, tests for distinctness, uniformity and stability (DUS), and other services rendered by the PPV&FR Authority as well as for legal proceedings related to infringement or other causes in courts, tribunal, etc.

Right 9: Farmer protection from innocent infringement [Section 42]

If a farmer can prove before the court that he or she was not aware of the existence of any rights at the time of an infringement on any such rights, as detailed in the PPV&FR Act, he or she will not be charged. This provision is made in consideration of the centuries old unrestrained rights that the farmers had over the seed of all varieties, the novel nature of the PPV&FR Act and the poor legal literacy of the Indian farmers.

Establishment of "National Gene Fund" (NGF)

A National Gene Fund (NGF) has been established under this Act the receipts of which includes benefit shares, registration fee, compensation payments and other grants from national and international organizations.

Legal definition of a farmer as per the Act

As per the Act "Farmers" means any person who - (i) Cultivates crops by cultivating the land himself, or (ii) Cultivates crops by directly supervising the cultivation or land through any other person, or (iii) This provision is made, severally or jointly, with any other person any wild species or traditional varieties or adds value to such wild species or traditional varieties through selection and identification of their useful properties. The Act recognizes the Farmer as not only as cultivator, but also as conservator of traditional varieties, as Plant Breeder and as eligible person to register the Plant Varieties.

Implementation of the Act

The Ministry of Agriculture, Co-operation and Farmers' Welfare, Government of India, has been identified as the nodal agency for implementing the PPV&FR Act through an authority known as "The Protection of Plant Varieties and Farmers Rights Authority" located at New Delhi. The Rules of the Act have been notified by Government of India. The authority came into force in November, 2005. At present, the 147 crops are eligible for registration as notified by the PPV&FR Authority.

List of crops notified which are eligible for registration

Rice, wheat, maize, sorghum, pearl millet, chickpea, mungbean, urdbean, field pea, kidney bean, lentil, pigeon pea, Indian mustard, karan rat, rapeseed (toria), gobhi saison, groundnut, soybean, sunflower, safflower, castor, sesame, linseed, cotton, jute, sugarcane, black pepper, small cardamom, turmeric, ginger, tomato, brinjal, okra, cauliflower, cabbage, potato, onion, garlic, rose, chrysanthemum, mango, isabgol, menthol mint, damask rose periwinkle, brahmi, coconut, orchids, pomegranate, eucalyptus, casuarina, bitter guard, bottle gourd, cucumber, pumpkin, barley, corander, fenugreek, almond, apple, pear, apricot, cherry, walnut, grapes, Indian jujube (ber), tea, acid lime, mandarin, sweet orange, bougainvillea, banana, canna, gladiolus, muskmelon, watermelon, jasmine, tuberose, papaya, china aster, peach, Japanese plum, strawberry, chilli, bell pepper and paprika, finger millet, foxtail millet, amaranth, ridge gourd, spinach beet, carnation, noni, bael, jamun/black plum, nutmeg, jasmine/mogra, custard apple / sugar apple, karanj, neem, Indian gooseberry, guava, litchi, marigold, betelvine, chit pine, raigera, mulberry, jasmine, common/ sweet buckwheat, faba bean, jatropha, proso millet, barnyard millet, little millet, kodo millet, elephant foot yam, cashew, arcanut, chronjo, tamarind, sweet potato, cassava and poplar.

So far, more than 3000 plant varieties under different category including more than 1200 farmer's varieties have been registered and certificates have been issued.

Fees for registration of varieties

Sl. No.	Type of variety	Fees for Registration
1	Extant Variety notified under section 5 of the Seeds Act, 1966	Rs. 2000/-
2	New Variety/Essentially Derived Variety (EDV) / Extant Variety about which there is common knowledge (VCK)	Individual Rs. 7000/- Educational Rs. 10000/- Commercial Rs. 50000/-
3	Farmer varieties	No Fee

The status of implementation of the PPV&FR Act in UAS, Bangalore

1. Registration of varieties/hybrids developed by the University
 - a. The Registration Certificates issued by the Authority in respect of following crops (Registration No. & year are shown in the parenthesis)

Rice	BR-2655 (46/2013), Hemavathi-4107 or DWR-4107 (189/2013)
Finger millet	Ratna/GPU 48 (349/2016) & GPU 67 (424/2016)
Maize	NAC-6004 (9/2011), NAC-6002 (10/2011) & NAH-2049 (108/2012)
Pigeon Pea	BRG-1 (28/2012)
Sunflower	KBSh-41 (182/2014), KBSh-42 (184/2014), KBSh-44 (181/2014) & KBSh-53 (185/2014)
b. Applications submitted but registration pending	
Rice	IR-30864, MAAS 946-1 & MAAS 26.
Finger Millet	Finger Millet - KMR-301, KMR-204, MR-6 & ML-365
Pigeon Pea	BRG-4

2. Many training programmes/ Workshops have been organized to create awareness about the Act among the students, teachers/scientists, farmers, private seed industry through Krishi Vignana Kendras coming under the jurisdiction of Directorate of Extension, UAS, Bangalore.
3. Guiding and facilitating the farmers to apply for Plant Genome Savior Awards given by the PPV&FR Authority. So far Shri. Shankar Guru and Shri. Rechanna Farmers from Mysore district have been awarded.
4. Guiding KVK staff to identify and encourage farmers who can submit the application for registration of Farmers Varieties.
5. There is DUS programme in small millets and jackfruit in the University.
6. UAS, Bangalore has established Intellectual Property Management Cell (IPMC) in the Directorate of Research, which facilitates all the issues related to implementation of the act in the University.

For Details on Variety Registration you may also contact the following address

The Registrar PPV&FR Authority, GOI NASC Complex, DPS Marg, New Delhi-110012 Phone: 011-25840777, Fax: 011-25840478 Email: plantauthority@gmail.com Website: www.plantauthority.gov.in	Deputy Registrar Regional Registry PPV&FR Authority GOI UASHS Campus, Naville Shivamogga-577201 Mob: 9449207306
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For more details please contact

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University of Agricultural Sciences, Bangalore

Protection of Plant Varieties and Farmers' Rights Act 2001

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Protection of Plant Varieties and Farmers' Rights Act 2001

Introduction

With the rediscovery of Mendel's laws of inheritance in 1900, organized plant breeding programmes started under the auspices of agricultural research institutions and commercial private companies. In order to provide incentives to commercial breeders, several nations in Europe and North America enacted a legislation to confer proprietary rights to breeders over the varieties developed by them. In the 1960s, an International Union for the Protection of New Varieties of Plants (UPOV) was formed by countries which had started conferring rights on breeders of new crop varieties in order to develop uniform guidelines with reference to such rights. In the 1980s, FAO of the United Nations set up a Commission on Plant Genetic Resources under the chairmanship of Dr. M. S. Swaminathan, through which the concept of Farmers' Rights was developed. An international treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) was adopted by the FAO conference in 2001 and entered into force on 29 June 2004 for which India is also a signatory. The treaty recognizes the catalytic contributions that farmers and their communities have made and continue to make to the conservation and development of plant genetic resources. The treaty gives governments the responsibility for implementing these rights. The convention on biological diversity adopted at Rio-de Janeiro in 1992 also accords recognition to the contributions of rural and tribal communities in the area of Bio-diversity conservation and enhancement. In 1994, the M. S. Swaminathan Research Foundation (MSSRF) submitted to the government of India a draft Act for plant variety protection incorporating provisions for recognizing the role of farm women and men in conservation, cultivation and breeding. Later, in 1996, MSSRF recommended that proposed legislation may be titled "Plant Variety Protection and Farmers' Rights Act" in order to stress that Farmers and Breeders are allies in the struggle for sustainable food security and that their rights must be mutually reinforcing and not antagonistic. Such an Act titled "PPVFR Act" was passed by both the houses of our parliament in 2001. The Indian law which has been hailed as a progressive legislation has notable features. The legislation gives concurrent attention to the rights of farmers, breeders, researchers, seed industry and protection of public interest. This act is designed to establish an effective system of protection of plant varieties. The act also recognizes the rights of the farmers in respect to their contribution made in conserving, improving and making available plant genetic resources for the development of new plant varieties and also as evolvers of farmer's varieties.

India being the signatory, to the TRIPS agreement of the World Trade Organization (WTO) had agreed to provide protection to plant varieties and opted to come out with our own proposal to honor the international binding. Keeping the interest of the farmers, researchers, seed industry and the international binding, the Government of India enacted "The Protection of Plant Varieties and Farmers' Rights Act (PPV&FR)" in 2001 and regulations for implementing the act were formulated in 2003. Later, so many recommendations and proposals were made and finally the PPVFR Act came into enforcement in 2005 after making rules of the Act and notification in the central Gazette. It is very essential to understand the details of the PPV&FR Act by all those stake holders of plant varieties and agricultural development and research as this act involves many technical and legal issues.

The main objectives of the Act are

- To establish an effective system for the protection of plant varieties, the rights of farmers and plant breeders and to encourage the development of new varieties of plants.
- To recognize and protect the rights of farmers in respect of their contributions made at any time in conserving, improving and making available plant genetic resources for the development of new plant varieties.
- To accelerate agricultural development in the country, protect plant breeders' rights, stimulate investment for research and development both in public & private sector for the development of new plant varieties.
- Facilitate the growth of seed industry in the country which will ensure the availability of high quality seeds and planting material to the farmers.

Salient features of the Act Registration of plant varieties

The registration of a plant variety under the PPVFR Act is legal process and as per the Act it is needed to protect the intellectual property issues of owners of the variety and seed trade with regard to the protected varieties under the act. This process establishes the Plant Breeders Rights (PBR) on the plant variety in favour of the applicant(s). PBR is a legal ownership right granted on a plant variety. Ownership of PBR is not permanent but only for a specific period (15-18 years). PBR can be inheritable by succession, transferable and salable.

Who are eligible for Registration of Plant Varieties

A person/an organization/Individual Farmer/A group of community of farmers who have bred or conserved a variety or their assignees. As per the Section 16 of the Act, the eligibility applies to

(a) Any person claiming to be the breeder of the variety or (b) Any successor of the breeder of the variety, or (c) Any person being the assignee of the breeder of the variety in respect of the rights to make such application; or (d) Any farmers or group of farmers or community of farmers claiming to be the breeder of the variety; or (e) Any person authorized in the prescribed manner by a person specified in (a) to (d) to make the application on his behalf; or (f) Any university or publicly funded agricultural institution claiming to be the breeder of the variety.

The crop varieties that can be registered

The Act does not define the names of the crops whose varieties are eligible for registration. According to the Act, the GOI is empowered to decide and notify in the Government Gazette as to which crops are to be brought under the purview of this Act. The act covers all plants species where plant varieties are available with a particular denomination. Therefore, plant species falling under food crops, oil seeds, fiber and fodder crops, spices, aromatic and medicinal plants, vegetables, fruits, ornamental crops, plantation crops, biofuel plants, mulberry, forest trees, mangroves etc. are covered under the act.

The type of varieties that can be registered

1. New Varieties, 2. Extant Varieties, 3. Farmers' Varieties, 4. Essentially Derived Variety (EDV)

New Variety: A new variety can be registered under the Act if it conforms to the criteria for novelty, distinctiveness, uniformity and stability.

Extant Varieties: Extant variety means a variety available in India which is - (i) Notified under Section 5 of the Seeds Act, 1966; or (ii) Farmers' variety; or (iii) A variety about which there is common knowledge (iv) Any other variety which is in public domain (released by Private/Public Organizations)

Farmers' Variety: As per Section 2 (j) Farmers Variety means a variety "which has been traditionally cultivated and evolved by the farmers in their fields" or is a wild relative or land race or a variety about which the farmers possess the common knowledge.

Essentially Derived Variety (EDV): A variety essentially derived from an Initial Variety (IV) can also be registered provided that it differs from the Initial Variety for at least for one character and meets the DUS needs. Material derived through single gene transfer, recurrent back cross derivatives, CMS line, mutant, somaclonal variants, chimeras, poly-embryo, ploidy level changes and deletion/ substitution lines, etc. can come under EDV.

Process of Varietal Registration

- Submission of filled up application to the Registrar in the prescribed format along with Technical Questionnaire and related documents.
- Submission of Seed to the Authority for conducting DUS Test.
- Advertisement of application to call for any opposition.
- Issue of certification of Registration.
- Publication of list of registered varieties.
- Breeder to deposit the seeds/propagating material of registered varieties to National Gene Bank.
- Registration to confer Right of PBR by issuing Certificate of Registration.

Plant Variety Registry

A National Register of Plant Varieties is maintained at the Head Office of the Plant Variety Registry in the Authority. The registry is headed by The Registrar General. To facilitate regional requirement, registry offices have been opened in

Guwahati (Assam), Ranchi (Jharkhand), Shimoga (Karnataka), Pune (Maharashtra) and Palanpur (Jharkhand Pradesh). These registries are headed by Deputy Registrars and have notified states in their jurisdiction.

National Register of Plant Varieties

A Register called the National Register of Plant Varieties is kept at the head office of the Registry wherein the names of all the registered plant varieties along with the names and addresses of their respective breeders, the rights of such breeders in respect of the registered varieties, the particulars of the denomination of each registered variety, its seed or other propagating material along with specification of salient features thereof and such other matters are maintained.

Breeders' Rights

Breeder of a registered variety shall have an exclusive right to produce, sell, market, distribute, import or export the variety. In the case of an Extant variety, unless a breeder or his successor establishes his right, the central government, and in cases where such extant variety is notified for a state or for any area thereof under the Section 5 of the Seeds Act, 1966 (54 of 1966), the state government shall be deemed to be the owner of such rights.

Researchers' Rights

a) The use of any variety registered under this Act by any person using such variety for conducting experiment or research, or (b) The use of a variety by any person as an initial source of variety for the purpose of creating other varieties provided that the authorization of the breeder of a registered variety is required where the repeated use of such variety as a parental line is necessary for commercial production of such other newly developed variety.

Farmers Rights as per the PPV & FR Act, 2001

The PPV&FR Act recognizes the multiple roles played by farmers in cultivating, conserving, developing and selecting varieties. With regard to developing or selecting varieties, the Act refers to the value added by farmers to wild species or traditional varieties/ landraces through selection and identification for their economic traits. Accordingly, farmers' rights encompass the roles of farmers as users, conservers and breeders. Farmers are granted nine specific rights, which are briefed here.

Right 1: Access to seed [Section 39(1)(iv)]

Farmers are entitled to save, use, sow, re-sow, exchange, share or sell their farm produce, including seed of protected varieties, in the same manner as they were entitled to before the coming into force of the PPV&FR Act. However, farmers are not entitled to sell branded seed of a variety protected under this Act.

Right 2: Benefit sharing Right [Section 26]

Plant breeders and legal entities including farmers who provide Plant Genetic Resources (PCR) to breeders for developing new varieties shall receive a fair share of benefit from the commercial gains of the registered varieties. Out of all the national plant variety protection laws enacted since 2001, the PPV&FR Act is the first that integrates a provision for Access and Benefit-Sharing (ABS) along with Plant Breeder's Rights (PBRs). Accession of the genetic resource used in breeding is permitted under the Biological Diversity Act, 2002. However, the PPV&FR Act requires a breeder to make a sworn declaration on the geographical origin of the genetic resources used in the pedigree of the new variety and its accession.

Right 3: Compensation [Section 39(2)]

The seed of the registered variety must be sold with the full disclosure of their agronomic performance under recommended management conditions. When such seed is sold to farmers but fails to provide the expected performance under recommended management conditions, the farmer is eligible to claim compensation from the breeder through the intervention of the PPV&FR Authority.

Right 4: Reasonable seed price [Section 47]

Farmers have the right to access seed of registered varieties at a reasonable and remunerative price. When this condition is not met, the breeder's exclusive right over the variety is suspended under the provision concerning compulsory licensing and the breeder is obligated to license the seed production, distribution and sales of the variety to a competent legal entity. Most of the laws for plant variety protection have provisions on compulsory licensing of protected varieties to ensure adequate seed supply to farmers, and several of them also use unfair pricing as grounds for compulsory licensing.