



COMPARATIVE ANALYSIS OF THE LAWS ON THE PROTECTION OF NEW PLANT VARIETIES OF THE DPR KOREA AND THE RUSSIAN FEDERATION

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Abstract - *The legal protection of the rights of breeders who have developed new plant varieties is one of the important guarantees for resolving acute food problems by increasing agricultural production not only in the scope of an individual country, but also on a worldwide scale. Hence, several multilateral treaties have been concluded to protect new plant varieties or the breeders' rights and individual countries are enacting and enforcing relevant national laws. The DPR Korea and the Russian Federation also enacted national laws on the protection of new plant varieties in conformity with the international demand for the protection of new plant varieties and their specific conditions. A comparative analysis of the laws related to the protection of new plant varieties of the DPR Korea and the Russian Federation would be of particular significance in developing bilateral cooperation in the agricultural field in view of the present situation where relations between the two countries are getting increasingly close. The paper attempts to compare and analyze some of the differences in the protection of the new plant varieties of the DPR Korea and Russia in terms of the parties and objects of variety right protection, the eligibility requirements of protection, the contents of rights, the period of protection etc.*

Keywords: *DPR Korea; law on the protection of new plant varieties; civil code of Russian Federation; new plant variety; breeder; breeding achievement*

INTRODUCTION

With the development of biotechnology, breeding of new plant species and protection of their products is becoming increasingly important because of their direct connection with food production resources of mankind. The reason for protecting new plant varieties is that breeding superior varieties in terms of quality, quantity, maturity, disease resistance, etc. is of great importance in agricultural development and improvement of diet.

On the other hand, breeding new plant species is costly and time-consuming, as well as requiring expertise or skills. And even when a great deal of efforts and costs are exerted, it doesn't necessarily mean that good results are to be achieved. Therefore, in order to actively promote breeding of new plant species, a legal system governing the protection of the rights of breeders is required.



At present, globally, protection over the rights of breeders who have developed new plant varieties can be divided into three categories. Protection can be through patent, *sui generis* system, or a combination of these two systems¹. For example, new plant varieties are patentable in Australia and New Zealand². However, in countries that are members of the European Patent Office (EPO), the patenting of plant varieties, per se, is prohibited³. In Europe, for example, article 53(b) of the European Patent Convention prohibits the patenting of "plant varieties" as such⁴. On the other hand, the United States protects plant varieties through a combination of patents and *sui generis* law⁵.

In terms of such categories, the DPR Korea and the Russian Federation falls into the category of countries that protect new plant varieties through *sui generis* law.

The Law of the DPR Korea on Invention⁶ clearly provides that "New plant varieties are enlisted as one of the unpatentable subject matters defined in"⁷. In this connection, the DPR Korea introduced a *sui generis* system for the protection of intellectual property rights over new plant varieties, which led to the enactment of the "Law of the DPR Korea on the Protection of New Plant Varieties" on 6 October 2022.

This, however, does not mean that no system had existed for the protection of breeders of new plant varieties before the adoption of this law. As with many other countries, technological solutions invented during the breeding of plant new varieties, namely breeding methods or processes, have been recognised as methodological inventions and protected through patents. In addition, breeders of new plant varieties were awarded bonuses and registration certificates according to the provisions of the Law on Science and Technology⁸ that provides for giving money awards to citizens who benefited the state through scientific and technological achievements, and the Law on the

¹ Gunjan Bhagchandani, *Laws Relating Protection of Plant Varieties and Farmer's Rights: Intellectual Property Rights and their implementations* 263 (Jagan Nath University, 2018).

² Victoria Henson-Apollonio, *Patent Protection for Plant Material* 39 (UPOV Publication No.792(E), 2005).

³ *Ibid.*, 2005, at 38.

⁴ Laurence R. Helfer, *Intellectual property rights in plant varieties : International legal regimes and policy options for national governments* 43 (FAO, 2004).

⁵ Dan L. Burk, *Patent and Related Rights: A Global Kaleidoscope: The Oxford Handbook of Intellectual Property Law* 486 (Oxford University Press, 2018).

⁶ Adopted on 13 May 1998 and finally amended on 29 August 2023.

⁷ Article 19 of the Invention Law of the Democratic People's Republic of Korea.

⁸ Adopted on 15 December 1988 and finally amended on 23 August 2022.



Management of Crop Seeds⁹ that provides for rewarding institutions, enterprises, organisations and citizens that contributed to breeding new seeds of crops and increasing agricultural production. Such bonuses or certificates were merely commendation or tokens of registration awarded to the breeders of new plant varieties by the state but were not intellectual property rights.

The adoption of the law on new plant varieties provided a legal guarantee for protecting new species of plants as intellectual property in the DPR Korea.

Meanwhile, the Patent Law of the Russian Federation adopted in 1992 and amended several times thereafter stipulated that patent cannot be granted for varieties of plants and animals¹⁰, and the Law on Breeding Achievements of the Russian Federation was enacted as a special law. The Patent Law and the Law on Breeding Achievements was extinguished by the adoption of Part 4 of 2006 Civil Code. Part 4 of the Civil Code of Russian Federation provides for patents in Chapter 72 and the right to a breeding achievement in Chapter 73 respectively. And in Paragraph 6 of Article 1350 of Chapter 72 of the Civil Code spells out that the varieties of plants cannot be protected by law as inventions. This indicates that the Russian Federation also adopts the method of protecting new plant varieties through sui generis law.

The national legislations governing new plant varieties of the DPR Korea and Russia share much common in that they both rely on sui generis law, but they have certain distinguishing characteristics in their particulars.

In general, in terms of national legislation relating to the protection of new plant varieties, states can be classified into five categories depending on whether they are members of relevant international treaties or not: that is whether they are members of (1) WTO only (2) WTO and the 1991 UPOV Act (3) WTO and the 1978 UPOV Act (4) either the 1978 UPOV Act or 1991 UPOV Act, or (5) no IPR agreement relating to the protection of plant varieties¹¹.

The Russian Federation falls into second category while the DPR Korea falls into the fifth category of states.

This constitutes the main reason that explains the differences between the intellectual property law systems regarding new plant varieties of the Russian Federation and the DPR Korea.

⁹ Adopted on 14 December 2011 and finally amended on 23 August 2022.

¹⁰ Article 4 of the Patent Law of the Russian Federation.

¹¹ Laurence R. Helfer, *Intellectual property rights in plant varieties : International legal regimes and policy options for national governments* 61 (FAO, 2004).



The differences between states that fall into the second category and those falling into the fifth category in terms of required obligations relating to plant varieties are listed in the following table¹².

Required IPR obligations relating to plant varieties	Member of WTO & 1991 UPOV Act	Not a Member of WTO, UPOV or other IPR agreement
Applicable subject matter	All varieties of plants.	Any number of plant varieties may be protected.
Eligibility Requirements	Novelty, distinctness, uniformity and stability.	No requirements for eligibility.
Protected material	Vegetative and reproductive propagating material; harvested material, under particular conditions.	No material need be protected.
National treatment and most favoured nation treatment	Applicable to all WTO Members.	State may deny protection to foreign breeders or protect only some foreign breeders.
Exclusive rights granted to plant breeders	All exclusive rights listed in article 14 of 1991 Act.	No exclusive rights required to be granted to plant breeders.
Rights of remuneration granted to plant breeders	Not allowed as substitute for exclusive rights; allowed under compulsory license of article 17 of 1991 Act.	No right of remuneration required to be granted to plant breeders.
Term of protection	20 and 25 year terms required by article 19 of 1991 Act.	No particular term required.
Effective enforcement measures	Required.	No enforcement measures required.
Exceptions and	None required, but permitted only under	None required.

¹² *Ibid.*, 2004, at 62-64.



limitations	conditions stated in article 15 of 1991 Act.	
Other requirements	Those imposed by 1991 Act.	None.

Table 1. Required IPR obligations relating to plant varieties

As can be seen in Table 1, the states members of WTO and 1991 UPOV Act such as Russia are under a number of obligations required by the conventions.

But States belonging to the fifth category, including the DPR Korea, are under no obligation to protect plant varieties or the rights of breeders.¹³

But absence of obligations does not mean the absence of rights. All states have the right to adopt and implement national laws relating to the protection of new plant varieties for their agricultural development. An increasing number of states recognise the need to create a favorable environment for investment in plant breeding, which is deemed a vital means in agricultural development and the basis for overall economic development.

Although the DPR Korea is not a party to the UPOV Acts, it has enacted a new law on the protection of new plant varieties in 2022, reflecting the contents of 1978 and 1991 UPOV Acts and taking full account of domestic laws concerning the protection of plant varieties in other countries.

The definition of propagating material¹⁴, the conditions required for the protection of new plant varieties¹⁵, the application and evaluation procedures of new plant varieties, etc. were provided so as to fully reflect the requirements of the international conventions on the protection of new plant varieties. Such provisions will comprise the similarities of the systems of protecting new plant varieties of the DPR Korea and the Russian Federation.

However, the DPR Korea, as a non-member of international conventions on the protection of new plant varieties, has also incorporated, in the law on the protection of new plant varieties, provisions

¹³ *Ibid.*, 2004, at 69.

¹⁴ Article 2 (Definition of Terms) of the DPRK Law on the Protection of New Plant Varieties states in paragraph 4 that “Propagating material, which is a part of a plant that can reproduce a new plant in a certain way, includes seeds, fruits, roots, stems, seedlings, shoots, leaves, flowers, etc.”

¹⁵ Article 14 the DPRK Law on the Protection of New Plant Varieties specifies the conditions under which variety rights can be obtained. In order to obtain variety rights, the new plant variety should belong to the subject matters of variety right application, and it must be novel, distinctive, uniform and stable.



that suit its own situation, that is, the provisions that are distinctive from those of relevant conventions. Such provisions will be features distinctive from the system of new plant variety protection of the Russian Federation and will be the main subject matter of the present paper.

The laws on protecting new plant varieties in the two countries are different from each other due to the differences in the accession to international conventions or international organizations related to the protection of new plant varieties and the difference in the socio-economic relations on which the agriculture of the two countries are based.

This paper aims at offering a comparative analysis of the differences of the laws on new plant variety protection in the DPR Korea and the Russian Federation in terms of the parties and objects of the rights of new plant varieties, the conditions of protection, the restrictions of rights and the period of protection.

1. Subjects and objects of variety rights

The subjects and objects of the right to new plant varieties are fundamental starting points in the law on the protection of new plant varieties.

How to determine the extent of the breeders, as the subjects to obtain protection for new plant varieties, and the range of varieties to be protected is directly related to the motivation and purpose of the plant variety protection law of particular states.

Since the aim and motivation of the enactment of new plant variety protection laws are not consistent across countries, and the 1978 and 1991 UPOV Acts provides differently, the national laws on the protection of new plant varieties of individual countries have different provisions regarding the subjects and objects of the new plant variety rights.

The laws on the protection of new plant varieties of the DPR Korea and Russia also have some differences in the definition of a breeder and the range of varieties to be protected.

1.1 Definition of a breeder

It is commonly recognized in international conventions and national laws of almost all countries that the subject of the right to a new plant variety is a breeder. But there are different definitions of a breeder. For example, the 1978 UPOV Act failed to give a clear-cut definition of the term, while the 1991 UPOV Act defines the term breeder as a person who has bred or discovered and developed a new variety¹⁶.

¹⁶ Article 1(4) 1991 UPOV Act.



The national laws on the protection of new plant varieties provide different definitions of the term as shown in the table below.

DPR Korea (Law on the Protection of New Plant Varieties)	Russian Federation (Civil Code)
Article 2 (Definition of the term) 2. Breeding refers to the creation by a breeder of new plant varieties with better characteristics using different methods. 3. A breeder is a person who personally bred a new plant variety.	Article 1410. The Author of a Breeding Achievement The author of a breeding achievement is the citizen by whose creative labour the breeding achievement has been created, developed or discovered. Unless otherwise proven, the person specified as the author in a patent application for a breeding achievement is deemed the author of the breeding achievement.

Table 2. Comparison of definitions of a breeder between the DPRK Law and Russian Law

As can be seen from the table, the subjects of new plant varieties are breeders in both national laws of the DPR Korea and Russia, but there is a difference in the provisions on breeding.

In a word, the difference lies in the inclusion of 'discoveries' of plant species in breeding.

The DPR Korean Law on the Protection of New Plant Varieties confines breeding to the creation (development) of new varieties, while Russian Law includes, in breeding, the "discovery" of new varieties in the wild.

In this regard, the discovery of new variation in existing varieties is regarded as breeding activities in some countries, while it is denied in some countries. One of the major reasons for such inconsistency is that, since the 1978 UPOV Act does not explicitly define the term breeder, variation in a natural state, including the discovery of mutations, has become the source of new variety creation, thus leaving room for interpreting a mere discovery as an object of protection.

Hence, the 1991 UPOV Act defined the term breeder as a person who has bred or 'discovered *and* developed' a variety. However, Russian Law on Protection of New Plant Varieties is characteristic in that it defines a breeder as a person who has 'discovered *or* developed' a new variety.

In the DPR Korea, in view of the rationale that discovery itself is not a creative activity and of practical inadequacy of individual ownership of genetic resources in natural state, discovery is excluded from the concept of breeding.



1.2 Range of varieties to be protected

Not all plant varieties are protected under the 1978 UPOV Act¹⁷, but the 1991 UPOV Act requires states parties to protect all kinds of plant varieties within ten years from the ratification of the convention¹⁸. Accordingly, individual countries reasonably define the range of plant varieties as the objects of protection according to the requirements of the UPOV Acts to which they are parties. For example, Argentina is a member of only the 1978 UPOV Act, but it protects all genera and species, and Poland, as a member of the 1991 UPOV Act, protects all genera and species.¹⁹

Russia acceded to the 1991 UPOV Act in 1998, and therefore, from 2008 it is under obligation to include all plant varieties in the range of objects of protection. Accordingly, Russian Law on the Protection of New Plant Varieties does not restrict the range of protected varieties.

On the contrary, the DPRK Law on the Protection of New Plant Varieties restricts the varieties to be protected. The relevant provisions are shown in the table below.

DPR Korea (Law on the Protection of New Plant Varieties)	Russian Federation (Civil Code)
<p>Article 8 (The subject matters of application for variety rights)</p> <p>The subject matters of application for variety rights include;</p> <ol style="list-style-type: none"> 1. The varieties belonging to the genera or species of plants protected by the state, and 2. the varieties registered with the relevant variety registration organ. 	<p>Article 1412. The Objects of Intellectual Rights to Breeding Achievements</p> <p>1. The objects of intellectual rights to breeding achievements are the plant varieties and animal breeds registered in the State Register of Protected Breeding Achievements if these results of intellectual activity meet the requirements established by the present Code as applicable to such breeding achievements.</p>

Table 3. Comparison of the provisions on the range of objects of new plant varieties of the national

¹⁷ Article 4 of the 1978 UPOV Act.

¹⁸ Article 3 (2) of the 1991 UPOV Act.

¹⁹ Evans Sikinyi, *Experiences in Plant Variety Protection under the UPOV Convention* 253 (UPOV Publication No.792(E), 2005).



laws of the DPR Korea and the Russian Federation

As shown in the table, the DPR Korea confines the object of protection to the varieties registered with the relevant variety registration organ among the genera and species fixed by the state.

In general, the national registration system aims at ensuring the stability of the state agricultural production by allowing only varieties with a certain degree of performance for crops significant in national food policy. In this country, the production and dissemination of crops are possible only when they are registered with the National Committee of Species Registration affiliated to the Agricultural Committee, the Marine Plant and Fishery Registration Committee affiliated to the Ministry of Fisheries and the Forest Plant Variety Registration Committee affiliated to the Academy of Forest Science. Thus, when a breeder or the institution to which he is affiliated to has bred a new plant variety, they must register it with the relevant variety registration organ, not for intellectual property protection, but according to administrative procedures, and only such registered breeds can be put into production.

The application for variety rights under the DPRK Law on the Protection of New Plant Varieties is to confer intellectual property rights to breeders of new varieties whose production and dissemination are already permitted by national registration. In other words, applications for the rights in new plant varieties are aimed at protecting rights of breeders in respect of new plant varieties, which have been registered on a national level.

It should be noted that the registration of new plant varieties for the purpose of production and dissemination is conducted by various institutions according to the kinds of plants, but the registration of variety rights is carried out in a unified way by the National Variety Registration Committee.

2. Eligibility requirements

International conventions and national legislations governing new plant variety protection commonly defines eligibility requirements of new plant varieties as novelty, distinctness, uniformity and stability.

However, there are certain differences in terms of the conditions for recognizing novelty and whether the denomination of varieties is included in the eligibility requirements or not.

The paper attempts to offer a comparative analysis of the eligibility requirements of the DPR Korean Law and Russian Law in terms of novelty and denomination of varieties.



2.1 Novelty condition

DPR Korea (Law on the Protection of New Plant Varieties)	Russian Federation (Civil Code)
<p>Article 14 (The conditions under which variety rights can be obtained)</p> <p>1. In order to obtain variety rights, the new plant variety should have novelty.</p> <p>Unless a breeder has transferred the propagating material of a new plant variety to a third party by sale or dissemination before the date of applying for a variety right, it satisfies the novelty condition.</p> <p>Article 15 (Exceptional novelty condition)</p> <p>If a breeder has transferred the propagating material of a new plant variety to a third party by sale or dissemination within the scope of a comparative test of the variety for registration, and he applied for the variety right within one year after the registration of the variety, then the variety is deemed to have novelty</p>	<p>Article 1413. The Conditions of Protectability of a Breeding Achievement</p> <p>3. A plant variety and an animal breed are deemed novel if when a patent application is filed the seeds or breeding material of this breeding achievement had neither been on sale nor had been otherwise transferred by the breeder, his successor or with their consent to other persons for the breeding achievement to be used:</p> <p>1) on the territory of the Russian Federation more than one year before the said date;</p> <p>2) on the territory of another state more than four years, or for varieties of vine, arboreal decorative and arboreal fruit cultures, more than six years before the said date.</p>

Table 4. Comparison of the provisions on the novelty condition of new plant varieties of the national laws of the DPR Korea and the Russian Federation

Although, the DPR Korea and the Russian Federation defines novelty as one of the eligibility requirements of a variety right, they take different approaches to the conditions for recognizing novelty.

In general, the grace period is one year prior to the date of application in the country where the application is filed and in countries other than that in which the application has been filed and six years in case of trees and vines and four years for all other species.²⁰ This is also defined in the 1978

²⁰ Gunjan Bhagchandani, *Laws Relating Protection of Plant Varieties and Farmer's Rights: Intellectual Property Rights and their implementations* 265 (Jagan Nath University, 2018).



UPOV Act²¹ and in the 1991 UPOV Act²² and in the national laws of many states, including China²³, India²⁴ and Australia²⁵.

However, this is not the case with the Law of the DPR Korea on the Protection of New Plant Varieties. In this country, the sale or supply of new plant varieties is mainly made after registering them as national varieties. The imported varieties can be sold or supplied only when they are acclimatized to suit the climatic and soil conditions of the country and registered as national varieties. Hence, the DPRK Law on the Protection of New Plant Varieties defined the term “new plant variety” as referring to a new plant variety that was bred in the DPR Korea or acclimatized to the conditions of the country. Therefore, the period of four or six years since the sale of plants in foreign countries stipulated in the UPOV Acts or national laws of other countries is of little relevance in this country.

The Law stipulates that if an application for variety rights is filed within a year after the national registration of the variety, it satisfies the novelty condition. If a breeder has transferred the propagating material of a new plant variety to a third party by sale or dissemination within the scope of a comparative test of the variety for registration, and he applied for the variety right within one year after the registration of the variety, then the variety is deemed to have novelty.

2.2 Denomination

The UPOV Acts provides for the denomination of varieties as a condition for the protection of variety rights of breeders.²⁶ Most countries, including China²⁷, Australia²⁸ and India²⁹, have defined the

²¹ Article 6(1) of the 1978 UPOV Act.

²² Article 6(1) of the 1991 UPOV Act.

²³ Article 14 of the Regulations of the People’s Republic of China on the Protection of New Varieties of Plants, as amended in 2013.

²⁴ Rajkumar S. Adukia, *Handbook on Intellectual Property Rights in India* 103 (2013), available at http://www.metastudio.org/Science%20and%20Ethics/file/readDoc/535a76367d9d331598f49e2d/34_Hb_on_IPR.pdf.

²⁵ IP Australia, *A Guide to Applying for your Plant Breeder’s Right: IP Australia Plant Breeder’s Rights Application Guide* 10 (IP Australia, 2012).

²⁶ Article 13 of the 1978 UPOV Act, Article 20 of the 1991 UPOV Act.

²⁷ Article 2 of the Regulations of the People’s Republic of China on the Protection of New Varieties of Plants amended in 2013 states that “Article 2 The new plant variety referred to in these Regulations means a cultivated plant variety, or a developed one based on a discovered wild plant, which is new, distinct, uniform and stable, and whose denomination is adequately designated.”

²⁸ “Each new variety must have a unique name (also called the variety denomination) that identifies it from other varieties of the same plant class.” : “A Guide to Applying for your Plant Breeder’s Right” See IP Australia, A



denomination of the varieties as a condition to be protected varieties.

Article 1473 of the Russian Civil Code, which defines the conditions of protectability of a breeding achievement, does not include the name of breeding achievement as a separate condition.

However, Article 1439, which is a separate clause concerning the name of breeding achievements, includes relatively detailed provisions on it. According to this article, the author is entitled to give a name to the breeding achievement and the name of the breeding achievement suggested by the author or on the consent thereof by another person (applicant) filing a patent application shall be approved by the federal executive body charged with breeding achievement matters. If the name suggested does not meet the requirements established by law³⁰, the applicant should suggest another name. Otherwise, the federal executive body may refuse to register the breeding achievement. This means that the Russian law on new plants varieties indirectly recognizes the name of a breed achievement as one of the un-negligible protectability conditions. This seems to reflect the requirements of the 1991 UPOV Act, to which the Russian Federation is a party.

However, in the DPR Korea, the denomination of new plant varieties is designated to varieties at the time of registering with relevant variety registration organ according to the relevant administrative procedures. Therefore, denomination is not a condition for obtaining variety rights, and whether the denomination of a plant variety is the same as that of the nationally registered variety is examined in the formal examination. The formal examination examines (1) whether a new plant variety in respect of which variety rights are applied for belongs to a genus or species of plants under state protection, (2) whether the new plant variety has been registered, (3) whether the name of the new plant variety is the same as the registered variety, and (4) whether the application document meets the stated formal requirements. Where the variety right application is found acceptable on formal

Guide to Applying for your Plant Breeder's Right: IP Australia Plant Breeder's Rights Application Guide 15 (IP Australia, 2012).

²⁹ Rajkumar S. Adukia, *Handbook on Intellectual Property Rights in India* 103 (2013), available at http://www.metastudio.org/Science%20and%20Ethics/file/readDoc/535a76367d9d331598f49e2d/34_Hb_on_IPR.pdf.

³⁰ Article 1419 (2) states that;

“The name of the breeding achievement shall allow the identification of the breeding achievement, it shall be brief and different from the names of existing breeding achievements of the same or similar botanical or zoological species. It shall neither be made up of figures only nor be misleading as to the properties, origin, significance of the breeding achievement, the personality of its author, nor be conflicting with the principles of humanity and moral principles.”



examination, it is published.³¹

3. CONTENTS OF A VARIETY RIGHT

The contents of the laws on the protection of new plant variety rights of the DPR Korea and the Russian Federation have certain dissimilarities, which can be found in the aspects of farm saved seed by an individual farmer and the period of protection.

3.1 Farm saved seed

Farm saved seed generally refers to the practice of retaining part of a harvest to use as sowing seed for subsequent crops.³² States may provide for breeders' and farmers' exemption. Under the UPOV Convention, a country may elect to leave farmers free to use the saved seeds of a protected plant for their own use, so long as they do not sell them.³³ For example, in China, farmers can save the seeds for their own field or exchange crop seeds with other farmers³⁴, and in India, farmers are entitled to save, use, sow, resow, exchange, share, or sell farm produce including seed (unlabeled, brown bag sale) of the variety.³⁵ On the other hand, the European Union allows farm saved seeds in respect to particular kinds of crops and requires payments depending on the amount of production.³⁶

Russian Civil Code defines that the use of a vegetable material produced on a farm for two years as seeds for growing on the area of the farm a plant type available on the list of genera and species established by the Government of the Russian Federation is not deemed an infringement of the exclusive right to a breeding achievement³⁷.

But the DPR Korean Law has no provisions on farm saved seed. According to the law, a variety right is not effective when individual citizens use it for individual consumption, for the purpose of scientific

³¹ Article 19 of the DPRK Law on the Protection of New Plant Varieties.

³² IP Australia, *A Guide to Applying for your Plant Breeder's Right: IP Australia Plant Breeder's Rights Application Guide* 33 (IP Australia, 2012).

³³ Alan G. Isaac and Walter G. Park, *Open development: is the 'open source' analogy relevant to biotechnology? : The Role of Intellectual Property Rights in Biotechnology Innovation* 229 (David Castle, 2009).

³⁴ Qin Fang Wang and Yinliang Liu, *IPR Protection in China-A General Review* 243 (UPOV Publication No. 792(E), 2005).

³⁵ Padma Nambisan, *An Introduction to Ethical, Safety and Intellectual Property Rights Issues in Biotechnology* 325 (Elsevier, 2017).

³⁶ EU (1994) Council regulation (EC) No 2100/94 of 27 July 1994 on community plant variety rights.

³⁷ Article 1422(4) of the Civil Code of Russian Federation.



research and experiments, or for breeding other plant varieties³⁸.

In the DPR Korea, land is owned by state and cooperative organizations³⁹, and private ownership of property is limited to the property of citizens for their personal and consumptive purposes.⁴⁰ In this respect, the DPRK Land Law stipulates that individuals can own no more than 20-30 *pyong* (approximately 66-99m³) of kitchen gardens.⁴¹ Therefore, the farm saved seeds by individual farmers is not of practical relevance, and such practice can be included in the ‘circumstances where individuals use varieties for their own consumption’.

3.2 Period of protection

The 1991 Act extends the term of protection to 20 years, and requires over 25-year term for tree and vine varieties.⁴²

Russia, as a member of the 1991 UPOV Act, has a relatively long term of protection, while the DPR Korea, non-member of the Act, has a relatively short term of protection to suit the circumstances of the country.

The relevant articles are compared in the table below.

DPR Korea (Law on the Protection of New Plant Varieties)	Russian Federation (Civil Code)
<p>Article 32 (Period of Protection of New Plant Variety Rights)</p> <p>The period of protection of variety rights is normally 15 years from the date of registration of variety rights with the national variety registration organ. But the period of variety rights in respect</p>	<p>Article 1424. The Effective Term of the Exclusive Right to a Breeding Achievement</p> <p>1. The effective term of the exclusive right to a breeding achievement and of a patent certifying such right shall be counted from the date of state registration of the breeding achievement in the State Register of Protected Breeding Achievements, and it is equal to 30 years.</p>

³⁸ Article 43 of the DPRK Law on the Protection of New Plant Varieties.

³⁹ Articles 18 and 19 of the Constitution of the Democratic People’s Republic of Korea (as amended and supplemented on 23 March 2026).

⁴⁰ Article 21 of the Constitution of the Democratic People’s Republic of Korea.

⁴¹ Article 13 of the DPRK Land Law (adopted 29 April 1977, finally amended on 31 May 2022).

⁴² Article 19 of the 1991 UPOV Act.



of tree varieties is 20 years.	2. For varieties of vine, arboreal decorative, fruit cultures and forest varieties, including their stock, the effective term of the exclusive right and of a patent certifying such right is equal to 35 years.
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Table 5. Comparison of the provisions on the term of protection of breeding achievements in the national laws of the DPR Korea and the Russian Federation

As is shown in the table above, the period of protection of variety rights is 15 or 20 years in the DPR Korea, while Russia has a relatively long period of protection- 30 or 35 years.

But the period of protection in the DPR Korea cannot be deemed short at all compared to other non-members of the 1991 UPOV Act such as Bangladesh⁴³, which has 14 or 16-year term and India⁴⁴, which has 15 or 18-year term of protection. On the other hand, the term of protection in Russian Civil Code is distinctively long compared to other members of the 1991 UPOV Act such as Australia⁴⁵, which has 20 or 25 years of protection period.

CONCLUSION

As discussed above, the national laws on the protection of variety rights of the DPR Korea and the Russian Federation are distinctive in certain aspects, including the definition of a breeder, the range of varieties to be protected, the conditions for recognizing novelty, denomination, farm saved seed and the term of protection etc.

Yet, the laws of the two countries have more in common in many aspects in terms of the structure and framework underlying the whole body of laws. This is related to the DPR Korea's deliberate consideration of the national legislative practices of neighboring countries such as Russia and China while drafting and enacting its own national law on new plant varieties in 2022.

It is hoped that the present paper providing a comparative analysis of the laws of the DPR Korea and the Russian Federation on new plant varieties contribute to strengthening academic exchange of the two countries in IP law system and cooperation in several areas, including agriculture.

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⁴³ Article 22 of the 2019 Plant Varieties Protection Act of Bangladesh.

⁴⁴ Section 24 of the 2001 Protection of Plant Varieties and Farmers Rights Act of India.

⁴⁵ Article 32 of the 1987 Plant Variety Rights Act of Australia.



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