

Protecting Plant Varieties in New Zealand

Ryan D. Jenlink

I. Introduction

Plant variety rights (PVRs) refer to the series of rights and protections afforded to the owner, most often a plant breeder, of a specific plant variety.¹ The grant of a PVR affords the owner the exclusive right to produce for sale and to sell the reproductive material associated with that particular variety, called a “protected variety”.² In New Zealand, protection for PVRs is derived from the Plant Variety Rights Act of 1987 (PVRA).³ New Zealand is also a party to 1978 revision of the International Union for the Protection of New Varieties of Plants (UPOV), which sets forth an international scheme for the protection of PVRs.⁴

In an effort to provide a more complete and thorough series of rights to plant variety owners, New Zealand is working to reform and improve the Plant Variety Rights Act and is also considering whether it will choose to ratify the 1991 revision of UPOV. The following is discussion of these reform efforts and the anticipated implications of any such changes.

II. Plant Variety Rights in New Zealand

The Plant Variety Act of 1987 requires that four criteria be established prior to the grant of protection for a plant variety; the owner must demonstrate: 1) novelty, 2) distinctness, 3) stability, and 4) denomination.⁵ Novelty means that the variety can not have been marketed with the breeder’s consent for more than a period of one year in New Zealand or for a period of four

¹ Ministry of Economic Development; Plant Variety Rights Protection in New Zealand, http://www.med.govt.nz/templates/Page_____1194.aspx (last visited November 3, 2006).

² *Id.*

³ *Id.*

⁴ *Id.*

⁵ *Id.*

years outside of New Zealand.⁶ Therefore, unlike the context in which novelty is used with regard to other forms of intellectual property (such as patents), novelty in this case does not necessarily require that a plant variety be “new” or innovative, but only that the creation of the plant variety occurred within a certain period of time.⁷ The distinctness requirement means that the characteristics of the variety must be obviously different from all preexisting varieties; that is, it must have characteristics which allow one to distinguish that particular plant variety from others.⁸ Those distinguishable characteristics of the protected variety must be stable, and, lastly, the variety must be made identifiable by a denomination.⁹

The owner of a PVR has the right to produce for sale and to sell the reproductive material of the protected variety and to reproduce the variety for the commercial production of fruits, flowers, or other products.¹⁰ Section 2 of the PVRA defines the owner of a plant variety as the person who “bred or discovered” it.¹¹ Therefore, much unlike many other forms of intellectual property protection (most notably, patents), a PVR may be granted to the person who *discovers* a naturally occurring plant.¹² The grant of a PVR does not prevent others from producing the protected variety for a noncommercial purpose, from using the plant for human consumption or another non-reproductive purpose, or from using the variety for planting breeding.¹³ Although others may use the protected variety for breeding purposes, a person who is not the owner may not use the protected variety for continued production of first-generation hybrid seed over a long

⁶ *Id.*

⁷ See Ministry of Economic Development; Plant Variety Rights Protection in New Zealand, *supra* note 1. See also Ryan D. Jenlink, *Biotechnology, Patents, and the Law: Reform of the Intellectual Property Law of New Zealand* (2008).

⁸ Ministry of Economic Development; Plant Variety Rights Protection in New Zealand, *supra* note 1.

⁹ *Id.*

¹⁰ *Id.*

¹¹ Ministry of Economic Development; Background, http://www.med.govt.nz/templates/Page_____22605.aspx (last visited November 3, 2006). See also [PVRA § 2].

¹² Ministry of Economic Development; Background, *supra* note 11. See also Ryan D. Jenlink, *Biotechnology, Patents, and the Law: Reform of the Intellectual Property Law of New Zealand* (2008).

¹³ Ministry of Economic Development; Plant Variety Rights Protection in New Zealand, *supra* note 1.

period of time; thus effectively limiting the potential for a non-owner to derive any economic benefit. The protection afforded by the PVRA extends for a period of twenty years from the granting of protection for non-woody plants and twenty-three years for woody plants.¹⁴

Similar to the intellectual property protection awarded by New Zealand's PVPA is the International Union for the Protection of New Varieties of Plants (UPOV), of which New Zealand is a member.¹⁵ The 1978 version of UPOV (UPOV '78), the version which New Zealand has ratified and is thus a party, is the statute upon which New Zealand's PVRA is based.¹⁶ In 1991, the UPOV Convention revised its agreement to provide a more extensive series of rights to plant breeders than its 1978 predecessor.¹⁷ Upon the proposal of the 1991 modifications, New Zealand elected not to ratify and has not yet done so.¹⁸

The rights provided to plant breeders under the Plant Variety Rights Act, as supported by UPOV 78, are not nearly as extensive or exclusive as those rights which might be afforded to plant breeders were New Zealand to adopt the 1991 version of UPOV (UPOV '91).¹⁹ The rights under the current act are comparatively limited in scope.²⁰

In 2002, New Zealand's Plant Variety Rights Act was reviewed with a major part of that review process devoted to consideration of whether or not New Zealand should ratify UPOV '91.²¹

Most plant breeders consider the rights afforded under the pre-reform PVRA to be an inadequate means of providing incentives for the development of new plant varieties in New

¹⁴ *Id.*

¹⁵ Ministry of Economic Development; Background, *supra* note 11.

¹⁶ *Id.*

¹⁷ Ministry of Economic Development; Consideration of Ratification of UPOV 91; Executive Summary, http://www.med.govt.nz/templates/Page_____22604.aspx (last visited November 3, 2006).

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.*

Zealand.²² The PVRA is meant to provide plant breeders with the opportunity to recoup their investments expended in the development of a protected variety.²³ Agriculture has traditionally had a significant economic presence in New Zealand. Hence, the unavailability of new, innovative, and productive plant varieties to New Zealand's farmers could place them at a severe disadvantage in the global agricultural market in which they seek to compete.²⁴ This unavailability of adequate protection further frustrates New Zealand's attempts to inspire and promote economic growth and prosperity.²⁵

Under the unreformed PVRA regime, farmers were not deemed to be infringing the rights of plant breeders when they save and use the seed of protected varieties without paying any royalty to the breeder, a so-called "farmer's exception."²⁶ Although some farmers voice fierce objections to the prospect of accruing royalty payments in the absence of such an exemption, there are others who are prepared to pay royalties with each new purchase of seed for the reason of encouraging the development and introduction of new varieties and the introduction of new varieties into New Zealand's agricultural sector.²⁷

Because the PVRA defines owner as the person who bred or *discovered*²⁸ the variety, PVRs can be obtained for a naturally occurring, discovered plant variety.²⁹ Most of New Zealand's trading partners, conversely, do not protect "discovered" varieties.³⁰ Although the number of "discovered" varieties protected under the PVRA is quite small when compared to the

²² *Id.*

²³ Ministry of Economic Development; The Nature and Magnitude of the Problem and the Need for Government Action, http://www.med.govt.nz/templates/Page___1792.aspx (last visited November 3, 2006).

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ In this context, it should be noted that "discovered" is meant to describe naturally-occurring plant varieties as distinguished from those plant varieties which a farmer or researcher, whether the result of directed research or fortuity, might develop.

²⁹ *Id.*

³⁰ *Id.*

total number of protected varieties, it is nevertheless possible that these “discovered” varieties may impede the rights of the Māori under Article II of the Treaty of Waitangi.³¹

The 1991 version of UPOV differs from New Zealand’s PVRA in several important ways. Most importantly, UPOV ’91 is a great expansion of the rights of the plant breeder over UPOV ’78, upon which the PVRA is based.³² The UPOV ’91 revision was meant to address concerns regarding: 1) conflicts arising between PVRs and patents, 2) changes in the way plant breeding now takes place, and 3) the failure of UPOV ’78 to deal with essentially derived varieties³³.³⁴ The basic right of plant breeders to sell or offer for sale the protected variety is essentially the same under both regulatory schemes.³⁵ While the unreformed PVRA reserves for the owner the sole and exclusive authority to authorize propagation of protected varieties for commercial marketing, UPOV ’91 allows the owner to authorize propagation for the protected varieties for virtually all purposes, with exception only to farm-saved seed to be utilized in agricultural production.³⁶ UPOV ’91 further expands breeder’s rights by conveying the ability to authorize conditioning³⁷ for the purpose of propagation; the PVRA did not.³⁸ Under UPOV ’91, breeders would also gain the sole and exclusive rights to authorize export of the protected

³¹ Among other obligations, Article II of the Treaty of Waitangi in essence reserves the intellectual property rights to certain indigenous species to the Māori, *See* Ministry of Economic Development; The Nature and Magnitude of the Problem and the Need for Government Action, *supra* note 23. *See also* Ryan D. Jenlink, *Māori Claims to Traditional Knowledge of New Zealand* (2008).

³² Ministry of Economic Development; Why Review the Plant Variety Act of 1987, http://www.med.govt.nz/templates/Page_____1783.aspx (last visited November 3, 2006).

³³ An essentially derived variety is one that is derived from an initial variety, while retaining the expression of the essential characteristics of the initial variety, but is clearly distinguishable from the initial variety.” Ministry of Economic Development; Adequacy of Protection Provided by the PVRA 87, http://www.med.govt.nz/templates/Page_____1812.aspx (last visited November 3, 2006).

³⁴ Ministry of Economic Development; Why Review the Plant Variety Act of 1987, *supra* note 32.

³⁵ *Id.*

³⁶ *Id.*

³⁷ “Conditioning” refers to the common practice of operations such as drying, cleaning, or treating with fungicide, material which is to be used for propagating purposes. Ministry of Economic Development; Implications for New Zealand of Extending the Rights Granted to Plant Breeders, http://www.med.govt.nz/templates/Page_____1785.aspx (last visited November 3, 2006).

³⁸ Ministry of Economic Development; Appendix: Comparison of Provisions of PVRA 87 and UPOV 91, http://www.med.govt.nz/templates/Page_____1787.aspx (last visited November 3, 2006).

variety, to authorize stocking of the protected variety, and, exclusively, to apply to varieties essentially derived from the protected variety.³⁹ The term of protection for woody plants was increased from 23 years under the PVRA to 25 years under UPOV '91⁴⁰ while the minimum of 20 years for all other non-woody plants remained unchanged.⁴¹

III. Review of PVRA 1987

In 2002, New Zealand began the process of reviewing the Plant Variety Rights Act by preparing a draft of the modifications to the act for public consultation with one of the preliminary stages being a public comment period.⁴² The submissions received from the public largely dealt with many of the aforementioned issues which had previously plagued the PVRA.⁴³

In July of 2003 New Zealand's Cabinet amended the PVRA so as to expand a plant breeder's rights to mirror the rights breeders would enjoy under UPOV '91 were it to be ratified.⁴⁴ The Cabinet, however, agreed to not ratify UPOV '91 at that time, fearing that such an action might cripple New Zealand's ability to respond to and resolve disputes of ownership of certain indigenous intellectual property arising under the Treaty of Waitangi.⁴⁵ Specifically, UPOV '91 would alter the definition of "breeder" to include any person who "discovered or developed" a variety.⁴⁶ Accompanying this definitional change, law-makers foresaw the possibility that a person could use an indigenous plant variety to develop a new variety without

³⁹ *Id.*

⁴⁰ The scope of "woody" plants was also expanded to include vines. Ministry of Economic Development; Appendix: Comparison of Provisions of PVRA 87 and UPOV 91, *Id.*

⁴¹ Ministry of Economic Development; Appendix: Comparison of Provisions of PVRA 87 and UPOV 91, *supra* note 38.

⁴² Ministry of Economic Development; Draft Plant Variety Rights Amendment Bill, http://www.med.govt.nz/templates/Page___15418.aspx (last visited November 3, 2006).

⁴³ Ministry of Economic Development; Consideration of Ratification of UPOV 91; Executive Summary, *supra* note 17.

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*

the consent of the party holding rights to the indigenous plant.⁴⁷ In such a way, persons not having any rightful claim to indigenous plants might gain rights to varieties derived from that indigenous plant. Awarding protection to varieties developed in such a way could impede upon the rights of the Māori under the Treaty of Waitangi.⁴⁸

A difficulty also presents with respect to the mandate of UPOV '91 that plant variety protection be extended to all plant genera and species.⁴⁹ This requirement is an expansion of the 24 genera or species garnering protection under UPOV 78.⁵⁰ The mandatory protection of all plant species or genera would present a problem in that this requirement would cripple the commissioner's ability deny variety protection on the grounds that a particular variety was developed from an indigenous species reserved to the Māori under the Treaty of Waitangi.⁵¹

Prospectively, the Cabinet will reconsider the adoption of UPOV upon the resolution of disputes under the Treaty of Waitangi and completion of New Zealand's policy on bioprospecting⁵², or after three years from consideration in 2003.⁵³ Deferring the question of ratification for such a period of time will also allow New Zealand's policy-makers to observe the sufficiency of the amendments in gaining access to overseas markets⁵⁴ in the absence of ratification of UPOV '91.⁵⁵

More than three years has passed since that original Cabinet decision to postpone the question of UPOV '91 ratification. With the Treaty of Waitangi claims yet unresolved and New

⁴⁷ Ministry of Economic Development; Consideration of Ratification of UPOV 91; Background, *supra* note 11.

⁴⁸ *See Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² "Bioprospecting is the collection of biological material and the analysis of its material properties, or its molecular, biochemical or genetic content, for the purpose of developing a commercial product." Ministry of Economic Development; Consideration of Ratification of UPOV 91; Background, *supra* note 11.

⁵³ *Id.*

⁵⁴ Many policy-makers believe that ratification of UPOV '91, because it provides more rights to plant breeders, will encourage plant breeders to make their varieties available in New Zealand.

⁵⁵ Ministry of Economic Development; Consideration of Ratification of UPOV 91; Executive Summary, *supra* note 17.

Zealand's bioprospecting policy still incomplete, it is again time for New Zealand to face the looming question of ratification of UPOV '91.⁵⁶ Three years ago, those formulating the amendments to New Zealand's PVRA chose to wait until those amendments had been enacted to consider whether to ratify UPOV '91, but with those legislative amendments to the PVRA not yet enacted, the determined effect of these amendments is none-the-more clear now than it was three years ago.⁵⁷ The fact that New Zealand still, in essence, operates under a regime based on UPOV '78 is the source of additional difficulty in assessing whether ratification of UPOV '91 could provide additional benefits to New Zealand and its plant breeders.⁵⁸

A majority of the submissions to the drafting committee supported adoption of UPOV '91 because of the added protections which would be realized under UPOV '91. However, there is significant reason to believe that enactment of the amendments to the PVRA will bring about many of these same desired effects without actually enacting UPOV '91.⁵⁹ For example, many submitters believe that the limited rights to breeders in the absence of UPOV '91⁶⁰ dissuade foreign plant breeders from introducing their varieties in New Zealand.⁶¹ While this may well be true, whether the amendments to the PVRA will be sufficient to encourage foreign investment of resources in New Zealand and the introduction of new plant varieties is yet unknown.⁶²

IV. Anticipated Effects of the PVRA Reform

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ "The draft PVRA Amendment Bill will make most of the substantive changes to the PVRA required to bring it into conformance with UPOV 91, but will not bring the PVRA completely into alignment with UPOV 91." Ministry of Economic Development; Consideration of Ratification of UPOV 91; Executive Summary, *supra* note 17.

⁶¹ Ministry of Economic Development; Consideration of Ratification of UPOV 91; Background, *supra* note 11.

⁶² *Id.*

Like all grants of intellectual property, PVRs, because they reserve certain rights exclusively to the owner, have the effect of imposing certain costs on society, either as an increase in price or a reduction in choice to consumers.⁶³ However, this societal cost is balanced against the benefits that society will incur from increasing and encouraging innovation, research, and discovery in the field.⁶⁴

The drafted amendments awaiting enactment are directed at increasing the exclusive rights of plant breeders and, in so doing, increasing their incentives to create new and innovative plant varieties.⁶⁵ However, because the drafted amendments stop short of a full ratification of UPOV '91, there is doubt to whether or not those amendments to the PVRA will be sufficient to both provide incentives to New Zealand's plant breeders to invest in the development of new varieties and to encourage foreign plant breeders to release their varieties in New Zealand.⁶⁶ Another perceived problem of stopping short of full ratification of UPOV '91 is that the PVRs awarded by the amended PVRA will be applicable only in New Zealand, while UPOV '91, as the internationally recognized standard for award of PVRs gives the protections to plant breeders beyond national borders⁶⁷ For so long as New Zealand remains a non-party to UPOV '91, the member countries of UPOV '91, Australia, Japan, the United States, and the United Kingdom among them, are not obligated to provide the enhanced protection UPOV '91 brings to New Zealand citizens.⁶⁸

Under UPOV '91, plant breeders would gain the exclusive right to control the production and reproduction of the protected variety, a right that, under the PVRA or UPOV '78, was

⁶³ Ministry of Economic Development; Implications for New Zealand of Extending the Rights Granted to Plant Breeders, *supra* note 37.

⁶⁴ *Id.*

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ *Id.*

limited to control of production or reproduction for *sale* of the protected variety.⁶⁹ The most significant effect of this change might be felt by New Zealand's farmers who fear that they could face increased costs because they would no longer enjoy an exemption for farm-saved seed.⁷⁰ Should New Zealand at some point choose to ratify UPOV '91, is to make an exception to Article 14 of UPOV '91, which gives the plant breeder the exclusive rights to propagation of the protected variety.⁷¹ Article 15(2) of UPOV '91 allows countries ratifying UPOV '91 to make an exception for the "farmers' privilege"⁷² as it is called.⁷³ If New Zealand, for some reason, chose not to enact a farmer's exemption, farmers would either be forced to pay royalties to the variety owner or to purchase new seed every planting of a crop.⁷⁴ This right would, however, provide PVR owners the opportunity to generate more revenue from their investments and could therefore encourage the development of more new varieties as well as encourage the introduction of foreign varieties into New Zealand's agricultural sector.⁷⁵ Unfortunately, the introduction of foreign-owned protected varieties into New Zealand's market could cause a greater portion of the revenue gained from sales of protected seeds and plants to flow out of New Zealand's economy.⁷⁶ The hope is that these varieties could nonetheless increase productivity so as to provide a boost to New Zealand's economy.

Supporters of the farmer's privilege point to increased costs to the farmers as well as ecological considerations.⁷⁷ Critics suggest that forcing farmers to pay royalties or to purchase new seed with each planting could lead to a foreseeable decrease in the number of varieties

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² Farmers Privilege refers to the farmer's ability to use the seed saved from previous crops to plant another crop, sometimes referred to as the "farm-saved seed exception" or the "farmers' entitlement". *Id.*

⁷³ *Id.*

⁷⁴ *Id.*

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

produced and to farmers growing only a few protected varieties, thereby discouraging biodiversity.⁷⁸ Plant-breeding has its origins with farmers selectively breeding centuries before plant breeders gained PVRs. Thus, farmers were selecting the same varieties season after season with no detrimental loss of biological diversity; many believe that allowing farmers to continue to utilize saved seed benefits the ecological community in its entirety.⁷⁹

Proponents of expanded breeders' rights, however, argue that allowing farmers to save and replant seed reduces their ability to recoup their investment in breeding and research and, consequentially, reduces their incentive to create new varieties or invest in the progress of this field.⁸⁰ An expansion of breeder's right, in the alternative, is thought to encourage new breeding and development by allowing breeders a better opportunity for a return on their efforts.⁸¹

If New Zealand chooses to ratify UPOV '91, it might in turn choose to implement one of a series of options under Article 15(2).⁸² The Ministry of Economic development outlines four options to address the farmer's exemption for saved seed: 1) Farmer would pay a full royalty on farm saved seed, 2) farmers would pay a reduced royalty payment on farm saved seed, 3) farmers would have limited rights with regard to farm saved seed, or 4) farmers would allow unrestricted rights to use farm saved seed.⁸³ Exactly which of these options is best to be implemented depends upon a careful balancing of factors such as the costs to the farmers, the benefits to the PVR owner, the costs to the end consumer, and the overall associated benefits and costs to society.⁸⁴

⁷⁸ *Id.*

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *See Id.*

⁸³ *Id.*

⁸⁴ *See Id.*

Another substantial change which would be realized under UPOV '91 is the right of the PVR owner to export the propagating material. Under the PVRA, the permission of the PVR owner is not required to export propagating material of a protected variety.⁸⁵ Provisions of UPOV '91, however, require the PVR owner to consent if that material is to be used for further propagation following export.⁸⁶ This provision of UPOV would make much easier policing the export of protected varieties, and thus to guard against infringement on an international level.⁸⁷ Those attempting to export and potentially internationally pirate protected varieties developed in New Zealand would need to first obtain authorization by the owner.⁸⁸ Supporters of this right cite examples like visiting scientists attempting to procure cutting from apple trees or the finding of "Pacific Rose" apples being illegally grown in Chile as evidence for the necessity of this right.⁸⁹

New Zealand's pre-reform PVRA does not provide for the right to authorize conditioning.⁹⁰ Such a right to authorization would apply to material being prepared for propagation.⁹¹ Although this right would allow PVR owners more control over their varieties and the ways in which of those varieties are used, it also stands to be yet another mechanism by which the costs to those who are commonly involved in conditioning material and to those who are involved in agriculture, are increased.⁹² Further, PVR owners would have the ability to grant

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Id.*

⁸⁹ *Id.*

⁹⁰ "Conditioning" refers to the common practice of operations such as drying, cleaning, or treating with fungicide, material which is to be used for propagating purposes. Ministry of Economic Development; Implications for New Zealand of Extending the Rights Granted to Plant Breeders, *supra* note 32. *See supra*, note 35.

⁹¹ Ministry of Economic Development; Implications for New Zealand of Extending the Rights Granted to Plant Breeders, *supra* note 32.

⁹² *Id.*

or not grant to authorization to whomever they choose, thereby potentially decreasing competition in the industry and further increasing costs to the end user.⁹³

Ratification of UPOV '91 would also result in the advent of the plant breeder's right to authorize or not authorize the stocking of propagating material for certain purposes.⁹⁴ This right adds another means by which the PVR own may more easily monitor any infringement of their rights.⁹⁵ This right would enable PVR owners to prohibit persons from stocking propagating material for later commercial use or to prohibit use of stocked material after the expiration of variety protection.⁹⁶ This right, however, may be subject to certain limitations; for example, where the variety is a basic food plant, Article 17 of UPOV '91 would allow stocking in the public interest.⁹⁷

V. Conclusion

Although there appear to be economic incentives which encourage the ratification of UPOV '91, New Zealand, because of its unique situation with regard to rights of traditional knowledge held by native peoples, may be preempted from doing just that. If that is the case, New Zealand faces the risk of losing the economic benefits which a more thorough series of rights in plant varieties could potentially produce. If New Zealand wishes to compete in a global agricultural market while refusing to implement UPOV, it must look to other ways to encourage PVR owners to invest their resources in New Zealand and thus reap the benefit of those varieties.

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ *Id.*

⁹⁷ *Id.*