

Plant Variety Rights Act 1987 review: Issues Paper – Submission template

Name	
Email	
Organisation/iwi	PGG Wrightson Seeds Limited
Interest	<p>PGG Wrightson Seeds is part of PGG Wrightson Limited, which is one of New Zealand’s largest agribusinesses with over 150 years involvement in New Zealand agriculture.</p> <p>PGG Wrightson Seeds is Australasia's largest proprietary seed company, with a focus on research and development. This approach produces our innovative new varieties and products which is key to our success. PGG Wrightson Seeds, alongside its partners, invests NZD16 million per annum into plant breeding and related research activities. Our objective is to enhance the profitability of farmers and growers by providing them with proprietary cereal, turf, grass and forage seeds that provide high quality feed and turf.</p> <p>We seek to work with research providers to develop technologies to help New Zealand farmers. We have long term relationships with two primary research partners, AgResearch and Plant and Food Research, and look to work with world leading research and development players in the forage area.</p> <p>PGG Wrightson Seeds are involved in the development, breeding, production, and sales of forage products for the New Zealand farmer. A key part of our research and development relates to Intellectual Property and specifically Plant Variety Rights. It is important that we are able to protect the products developed from our investment appropriately so that we are able to continue to invest in research and development. Therefore, PGG Wrightson Seeds are keenly interested in the PVR Act review.</p>

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I would like my submission (or specified parts of my submission) to be kept confidential, and attach my reasons and grounds under the *Official Information Act 1982* that I believe apply, for consideration by MBIE.

Responses to Issues Paper questions

Your submission may respond to any or all of the questions from the Issues Paper. There is an additional box at the end for any other comments you may wish to make.

Text boxes will expand as you complete them.

Objectives of the PVR Act

1 Do you think the objectives correctly state what the purpose of the PVR regime should be? Why/why not?

Yes, we believe the objectives clearly state what the purpose of the PVR regime should be. Aside from meeting our international and domestic treaty obligations, it is extremely important that the PVR regime should operate to encourage plant breeders to invest in the development of new varieties, especially with the increasing need to breed varieties that are sustainable and address environmental concerns. PGG Wrightson Seeds, alongside its partners, invests NZD16 million per annum into plant breeding and related research activities. To be able to continue to invest significant dollars in these activities, we require the ability and the certainty to protect and extract a return from the innovations that we develop.

2 Do you think the PVR regime is meeting these objectives? Why/why not?

The current regime does not meet all of the objectives in terms of providing an appropriate balance between the interests of plant breeders, farmers/growers and society as a whole. For the continuation of improved development of genetics in some industries (for example - grain), there needs to be a fairer way to compensate breeders in relation to farm- saved seed. Across all industries there needs to be a better way to deter infringement and enforce Plant Variety Rights. In addition, the ability to prosecute and the penalties applied are currently inadequate.

3 What are the costs and benefits of New Zealand's PVR regime not being consistent with UPOV 91 (e.g. in terms of access to commercially valuable new varieties, incentives to develop new varieties)? What is the size of these costs/benefits? What are the flow on effects of these costs/benefits? Please provide supporting evidence where possible.

We believe there are no benefits of not aligning with UPOV 91 but there are a number of costs.

One major cost of not being aligned would be the signal this sends other countries if New Zealand decides to not adopt UPOV 91. There is the potential that overseas countries may revisit why they should protect New Zealand bred varieties in their countries if New Zealand does not reciprocate by protecting their IP. It would be viewed as a decision not to recognise IP rights of others. This is manifested by the inability to collect royalties on farm-saved seed.

The UPOV 91 allowance to introduce royalty collections on farm-saved seed will encourage the continued investment in breeding of varieties for genetic gain in New Zealand. Furthermore, overseas companies will be encouraged to bring their best varieties to New Zealand if they can be more certain of a satisfactory return on their investment. In some industries, such as the grain seed industry (which is relatively small), there are limited opportunities to earn the royalties required to maintain breeding programmes, which are long-term and expensive. There needs to be an incentive for breeders to continue to make improvements and this could be accomplished through enhanced royalty opportunities of payment of farm- saved seed and increased penalties on infringements. The huge investment made into the breeding programmes results in significant gains to the end user. For example, the investment in perennial ryegrass breeding has seen genetic gains average 0.74% per annum for the last 30 years, to the benefit of the animal forage industry.

4 Do you think there would be a material difference between implementing a sui generis regime that gives effect to UPOV 1991 (as permitted under the CPTPP) and actually becoming a party to UPOV 91? If so, what would the costs/benefits be?

We believe that it makes good sense to become a party to UPOV 91. This will improve international credibility as well as provide certainty for IP owners by using the globally aligned framework familiar to countries with which we partner. We also believe it would require less additional resources than the establishment of a sui generis approach.

Farm-saved seed

5 Are there important features of the current situation regarding farm-saved seed that we have not mentioned?

We believe the issues paper covers most of the important features of the current situation, most importantly the fact that the current legislation means breeders lose a significant amount of royalty revenue each year (please see the next question for more detail). Royalties are important in underpinning the breeding and research investment and do not cover all costs. Without sufficient royalties, less investment takes place. If this continues, access to overseas germplasm could also decline as overseas breeders expect to get paid adequate royalties for this access. Currently they miss out on significant revenue from farm-saved seed (especially in the cereal industry).

Another concern we have with the current system relates to the genetic integrity of the variety, where farm-saved seed is unmanaged under legislation.

In discussions the NZPBRA have had with Federated Farmers, we understand that while fragmented in their views, the farmers are generally supportive of farm-saved seed royalty payments, subject to finalising details on royalty rates and suitable collection mechanisms. PGG Wrightson Seeds do not agree with the argument made of a 'one size fits all' royalty mechanism for all crops (i.e. Seed Point vs End Point royalties) and want to see flexibility in the legislation as this would be fair to all parties. For example, the milling wheat industry has been successfully collecting an end point royalty for many years now, while other industries are structured in ways where this is not possible.

6 Can you provide any additional evidence/information that would assist us to understand this issue? For example, the nature and extent of royalties that are currently paid in different sectors, and the proportion of crops planted each year using farm-saved seed.

Farm-saved seed does impact on the return of investment for new varieties in the cereal industry. For PGG Wrightson Seeds we calculate our projected cereal royalties from the previous years cereal seed sales. Each year, we find a substantial shortfall in cereal royalties paid when compared with cereal seed volumes sold the year before. The approach used is to review seed cereal volumes for both retail and wholesale sales and compare with the subsequent end point royalties received. To do this, assumptions around yield and sowing rates are made. Both with feed and dual-purpose varieties (feed and milling) we see significant royalty slippage, as high as 40-50%. Some of this can be attributed to incorrect varieties being nominated by the grower or by the variety 'going' to a neighbouring dairy farmer for feed and not to a flour mill where a royalty is collected. Inaccurate actual yield figures could also be a contributing factor due to droughts etc, so we acknowledge that there are a number of variables that could contribute to reduced royalty collection.

We were also involved in an exercise two years ago which indicated for wheat and barley that there was an estimated uncollected \$1.25 million royalty revenue from farm-saved seed for the grain industry. Although these numbers are not exact, with assumptions for average yields and sowing rates being made, we found that farm-saved seed represented over 30% for wheat (feed and milling combined) and over 50% for barley. Most of the farm-saved seed is related to feed grains as both milling wheat and malting barley require certified seed to be planted as per contract requirements. Therefore, we estimate very little farm-saved seed for this area (an estimated 5-10%).

Other industries (for example apple and berry) recognise plant breeders' efforts through a share to the breeders.

7

Do you think there are problems with the current farm-saved seed arrangements? What are they? What is the size of these problems? What are the consequences of these problems? Please provide evidence where possible.

Yes, there are problems with the current farm-saved seed arrangements. As already discussed, breeders are not making a sufficient return on the significant investment in breeding and development of new varieties in many species. It can cost over NZD1 million to develop some varieties. PGG Wrightson Seeds, alongside its partners, invests each year a total of NZD16 million across a range of forage and arable crops.

With farm-saved seed, we feel the major issues are within the cereal industry, mainly for wheat and barley, and in ryegrass for pastures. The NZPBRA working group, of which we are a member, did an analysis that estimates there is a total of \$2 million (1.25m for Cereals) in uncollected royalties every year under the current system.

The consequence of this is likely to be a reduced investment in breeding which would result in inferior or fewer varieties being released into the market, and a lack of genetic integrity of varieties which are extremely critical for maltsters and flour mills to meet their customer specifications. More recently we have had major disease challenges in cereals (Ramularia in Barley and Speckled Leaf Blotch in wheat) and fungicide resistance, which will in turn require more breeding investment to bring resistant varieties to market. To enable this to happen, investment will need to increase. In the end, farmers and end users will be significantly impacted if this investment is not made.

In pasture seeds, some large enterprises who own both seed producing farms and dairy farms are transferring seed for their own use from the seed farm to the dairy farms. We believe this transfer of seed from one farm operation to another, even though they are under common ownership, should be an infringement of the PVR Act. Further to this, in some instances the ownership of the arable operation and the dairy operation is not exactly the same and so this should be seen as an infringement of the PVR Act.

8

Do you think there are benefits of the farm-saved seed arrangements? What are they? What is the size of these benefits? What are the consequences of these benefits? Please provide evidence where possible.

PGG Wrightson Seeds do not see a lot of benefits in the current farm-saved seed arrangements, however, we recognise and support the long-held tradition of farmers saving seed for their own use. However, we have concerns that protected varieties are being multiplied and sold to other farmers. This illegal 'black market' has many consequences. Not only are breeders not being compensated for these transactions, but the government forgoes revenue from taxes.

PGG Wrightson Seeds can accept farmers saving seed for their own use on farm, provided they have purchased the seed legally and a farm-saved seed royalty is paid to the breeder.

With farm operations growing in size and complexity, the legislation also needs to cover the potential avoidance for farm-saved seed royalties by large or corporate farms. One option that might be considered is that farm-saved seed be limited to family ownership or farms of a maximum size.

9

Do PVR owners use mechanisms outside the PVR regime to control farmers' use or saving of the seeds of their protected varieties? What are these?

Plant breeders and PVR owners do, in some circumstances, try to manage farmers use of farm-saved seed. An example of this is the use of contracts between growers/farmers and the breeder at the time of the initial seed purchase to try and ensure seed is not saved. These contracts often relate to seed production or export contracts. Having legislated regulations for this would ensure better practice as well as fairness and consistency across the system.

10 Do you think farmers should have to get permission from the PVR owner before sowing the farm-saved seed of a protected variety? Why/why not?

While there is some appeal to the idea of farmers needing to seek permission prior to sowing farm-saved seed, we are unsure how feasible this would be to administer. In reality we would suggest that if stronger, more easily enforceable penalties for infringement are put in place to encourage compliance, then there would be less of a requirement to monitor this at the front end. On that basis our view is, providing farmers pay their royalties for farm-saved seed, we do not believe permission needs to be sought.

11 What do you think the costs and benefits of a mandatory royalty scheme would be? What could such a scheme look like (e.g. should it cover all, or only some, varieties)?

The immediate benefit of a mandatory royalty scheme would be to secure a return on the development of new improved seed varieties.

As already discussed, the royalty mechanism needs to be flexible enough to deal with different species or crop types and not a 'one collection model' (seed-point) for all. It should be left to the industry to decide and this is common practice in other industries. There is no need to prescribe a collection point for all crops and the current flexibility for different crop types works well and should be maintained.

Ideally farmers would recognise their legal obligations and ensure payment on farm-saved seed. If this occurred, then it would be self-regulated. However, if there is a view that this voluntary system is too loose then possibly there could be the creation of 'The Royalty Collection Agency' as proposed by the NZPBRA. This agency would collect royalties only on farm-saved seed of PVR protected varieties.

Rights over harvested material

12 Are there important features of the current situation regarding rights over harvested material that we have not mentioned?

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13 Do you agree with our definition of 'harvested material'? Why/why not?

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14 Do you think there are problems with the current scope of PVR owners' rights over harvested material? What are they? What is the size of these problems? What are the consequences of these problems? Please provide evidence where possible.

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15 Do you think there are benefits to the current scope of PVR owners' rights over harvested material? What are they? What is the size of these benefits? What are the consequences of these benefits? Please provide evidence where possible.

Rights over similar varieties

16 Are there other important features of the current situation regarding distinctness that we have not mentioned?

As we support the accession to UPOV 91, this includes the support of the introduction of an Essentially Derived Variety (EDV) system. The most important thing is to strike a balance between the introduction of an EDV regime that protects innovation while maintaining the 'breeders privilege' to work with and use material with Plant Variety Rights.

To assist in clarity around this we propose that there is a need to be able to determine distinctness using molecular and improved phenotypic tools. A good example of this is traits such as herbicide tolerance that are not currently included in any morphological description but provide absolute separation when herbicide is applied. Currently this trait is at best allowed to be considered as supplementary data. Similarly, the molecular world is moving so rapidly that it must be considered as a means of differentiating varieties going forward.

17 Are there other important features of the concept of EDVs that we have not mentioned?

There was a loophole in the Australian PBR law that in cases where a party bred an EDV but had then not applied to protect this variety by Plant Breeders Rights, an EDV declaration could not be sought by the original breeder. We believe this is currently being rectified in the Australian Act (<http://www.kwm.com/en/au/knowledge/insights/australian-plant-breeders-rights-to-be-significantly-strengthened-20180618>). We are of the view that we need to ensure that this provision is included in the New Zealand law.

The application of genetic distance based on molecular analysis should be considered as a means of assisting in determination of EDV.

18 Do you think there are problems with the current approach for assessing distinctness? What are they? What is the size of these problems? What are the consequences of these problems? Please provide evidence where possible.

Yes, there are problems with the current approach for assessing distinctness. One of the key problems is that the resources available to achieve the required standards in centralised testing are under pressure. This may require more resources being provided for the testing authority. Also, we need to ensure experienced staff are maintained and advice is sought from experienced people within the industry.

19 Do you think there are benefits with the current approach for assessing distinctness? What are they? What is the size of these benefits? What are the consequences of these benefits? Please provide evidence where possible.

One of the benefits of the current approach which we would like to see continue under UPOV 91 is the centralised trial system, which needs to be well resourced to ensure it runs well. The integrity of the DUS system depends heavily on the quality of the field trials run to measure morphological traits and the experience of the operators.

20 How might technological change affect the problems/benefits of the current approach for assessing distinctness that you have identified?

Technological change will potentially help address the problems of the current approach around assessing distinctness. For example, the current approach could be much aided by the use of molecular tools and/or improved phenotypic tools. There is a growing body of evidence around use of proximal sensing tools for measurement of phenotypic traits.

21 Do you have any examples of a plant breeder 'free-riding' off a variety? How often does this happen? What commercial impact did this have? Please provide evidence where possible.

It is likely that there are cultivars sold by some seed merchants that breach PVR or are an essentially derived variety from PVR'd varieties. This could be hard to prove, especially if the seed sold is uncertified and varies from year to year. This is particularly problematic in open pollinated varieties. This also makes it difficult to provide evidence of specific examples. The ratification of UPOV 91 in New Zealand may assist with prosecutions of these breaches.

In terms of examples and how often it occurs this is a hard area to provide strong evidence in.

22 Do you think there are problems with not having an EDV regime? What are they? What is the size of these problems? What are the consequences of these problems? Please provide evidence where possible.

Yes, we believe there are problems in not having an EDV regime. One of these is that overseas breeders would expect under UPOV 91 to have protection of their EDVs. Not having it may impact on their willingness to provide new germplasm to New Zealand. The other main reason is that "free-riding" does not promote innovation. The absence of EDV undermines the New Zealand Government drive for greater industry investment into research and development.

23 Do you think there are benefits of not having an EDV regime? What are they? What is the size of these benefits? What are the consequences of these benefits? Please provide evidence where possible.

No there are no benefits of not having an EDV regime. We need EDV to provide a climate that supports investment in innovation and protection for those who take the risks inherent in investing in research.

24 How might technological change affect the problems/benefits of not having an EDV regime that you have identified?

We don't believe that technological changes will affect the problems of not having an EDV regime.

However, the recognition of molecular analysis to assist in determining the genetic relatedness would be a significant improvement to an EDV regime. The advances already available, and in development, with molecular markers, genome sequencing and also in phenotypic tools such as LiDAR and hyperspectral sensing make this an essential platform for future PVR work.

Compulsory licences

25 Are there important features of the current situation regarding compulsory licences that we have not mentioned?

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26 Do you think there are problems with the current compulsory licence regime? What are they? What is the size of these problems? What are the consequences of these problems? Please provide evidence where possible.

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27 Do you think there are benefits with the current compulsory licence regime? What are they? What is the size of these benefits? What are the consequences of these benefits? Please provide evidence where possible.

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Enforcement: infringements and offences

28 Are there important features of the current situation regarding infringements and offences that we have not mentioned?

We believe the current situation regarding infringements and offences requires more focus on penalties for infringing and making it easier for companies to pursue infringement. As part of this, it would be useful to have more clarity around understanding what happens if royalty payments for farm-saved seed are not made. If the farm-saved seed royalty payments become mandatory it is important to have clear and meaningful deterrent monetary fines, so people pay the required royalties. These fines should be consistent with other IP penalties in New Zealand.

29 Have you been involved in a dispute relating to the infringement of a PVR? How was it resolved? How was it resolved (e.g. was alternative dispute resolution used)? How effective was the process?

We are currently involved in High Court Proceedings for an alleged breach of our PVR. We cannot comment further as the matter is before the courts in sub judice.

30 How prevalent are PVR infringements and offences?

While it is difficult to catch and prove offences, the industry view is that this is prevalent, especially in open pollinated species where it may be difficult to detect infringements without molecular tests. Again, the fine for infringing needs to be sufficient to act as a deterrent.

31 Do you think there are problems with the infringement provisions in the PVR Act? What are they? What is the size of these problems? What are the consequences of these problems? Please provide evidence where possible.

The industry believes in general that there are not enough teeth in the law to provide a proper deterrent and the costs of taking a court action are also a deterrent to IP owners from taking cases to court. In Australia there is a current bill before parliament which is introducing a significant change to the quantum of damages that may be awarded by allowing additional damages – including the “need to deter, the conduct of the infringement party, the benefit to the infringing party and other relevant matters.”

(<http://www.kwm.com/en/au/knowledge/insights/australian-plant-breeders-rights-to-be-significantly-strengthened-20180618>). A review of this bill would be timely with looking at the NZ PVR Act remedies.

32 Do you think there are problems with the offence provisions in the PVR Act? What are they? What is the size of these problems? What are the consequences of these problems? Please provide evidence where possible.

Yes, there are problems with the offence provisions in the PVR Act. When companies have deliberately sought to promote an unprotected variety as protected then the infringement penalty should be higher than the current \$1000 to act as a better deterrent.

The kaitiaki relationship and the PVR Act

33 How does the current PVR regime assist, or fail to prevent, activity that is prejudicial to the kaitiaki relationship? What are the negative impacts of that activity on the kaitiaki relationship?

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34 What are the problems that arise from the PVR grant process, or the grant of PVR over taonga species-derived varieties more generally, for kaitiaki relationships? Please provide examples.

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35 What role could a Māori advisory committee play in supporting the Commissioner of PVRs?

Guidance over appropriate naming using the Maori language would be positive to ensure offensive or inappropriate naming doesn't occur.

36 How does industry currently work with kaitiaki in the development of plant varieties? Do you have any examples where the kaitiaki relationship was been considered in the development of a variety?

[Click here to enter text.](#)

'Discovered' varieties

37 Are there examples of traditional varieties derived from taonga species that have been granted PVR protection? Do you consider there is a risk of this occurring?

Offensive names

38 What characteristics might make a variety name offensive to a significant section of the community, including Māori?

As covered under question 35, it would be very useful to have guidance when choosing names for varieties so as to avoid using names offensive to Maori.

Transparency and participation in the PVR regime

39 What information do you think should/should not be accessible on the PVR register? Why?

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40 As a plant breeder, do you gather information on the origin of genetic material used in plant breeding?

Other Treaty of Waitangi considerations

41 What else should we be thinking about in considering the Crown's Treaty of Waitangi obligations to Māori in the PVR regime? Why?

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Additional issues

42 Do you have any comments on these additional issues, or wish to raise any other issues not covered either in this section, or elsewhere in this paper?

It is important that the PVR Act extends to cover rights over export as is provided for in UPOV 91.

Other comments

43 Are there any additional comments you wish to make about the PVR Act review Issues Paper?

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