

Productivity Commission SUBMISSION COVER SHEET (not for publication)



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The Australian Seed Federation (ASF) is the peak national body representing the interests of Australia's sowing seed industry. The membership of ASF comprises stakeholders from all sectors of the seed supply chain including: plant breeders, seed growers, seed processors and seed marketers.

The ASF was a key player responsible for the introduction of Plant Breeders Rights legislation into Australia in 1987 and has since continued to represent the interests of plant breeders.

The Commission seeks evidence from plant breeders and other stakeholders (particularly farmers and farmer representatives) on whether the introduction of PBRs has led to a more productive and profitable agriculture sector in Australia than would have been the case under general IP protections.

Members of the ASF will provide details under separate cover

Is there quantitative evidence to show that the introduction of PBRs led to an increase in the quality and quantity of new plant varieties, and an increase in the role of the private sector in plant breeding?

Due mainly to divestments of State Governments, and the response by GRDC (Grains Research and Development Corporation), grower groups and the global seed businesses, state-based and university breeding programs have now largely been replaced by fewer and larger privately owned, or public / private partnership breeding companies. These new companies rely on royalty revenues as their principal source of income to grow and develop their proprietary breeding businesses. As innovative plant genetics and technologies are vital to success of Australian grain production, an effective, efficient and equitable royalty revenue collection system is essential to support crop improvement.

Legislative changes to the Plant Breeders Rights (PBR) Act in 1994 allowed variety owners to apply an end point royalty to the grain produced from nominated PBR-protected varieties as a means of collecting revenue to be reinvested in their plant breeding programs. The introduction of an End Point Royalty collection system was supported by Australian grower organizations and by the GRDC. The EPR collection model was preferred in Australia over the seed based royalty collection model used in other developed grain producing countries for several reasons. Principally, as grain growers in Australia use retained seed to plant in excess of 90% of the crop each year, a seed-based royalty scheme is unviable for major self-pollinating crops.

In addition, Australian grain growers have had a strong culture of variety declaration at delivery; and the existence of monopoly grain marketing arrangements for wheat and barley (AWB, ABB) at the time supported the efficient collection of end point royalties (EPR's) at the first point of grain sale. Through this model, breeders and growers share the risks as breeders' income is directly linked to the level of variety performance and grower satisfaction, overlaid of course by seasonal conditions.

The EPR model has introduced a highly competitive business culture to plant breeding where breeding organisations compete with each other for market share by developing and commercialising attractive varieties that improve grower returns. In 1996 the first EPR wheat variety, Goldmark, was released. Over the next 14 years, more than 200 wheat, barley, oats, triticale, pulse and canola varieties bearing an EPR have been released onto the Australian market. Approximately 87% of the Australian wheat harvest and 89% of barley harvest in 2013/14 was made up of EPR bearing varieties, which is an indication of the success of proprietary or “EPR” varieties since 1996.

The success of Australia’s EPR Collection system in attracting investment in crop improvement to deliver Australia a competitive edge can be demonstrated by the recent investments made by three leading global seed companies, and owners of key patents in the new molecular technologies, in Australia’s three major wheat breeding companies: Syngenta (initially with AWB Ltd and now with Pacific Seeds) in LongReach Plant Breeders; Limagrain in Australian Grain Technologies and Monsanto in Intergrain.

Are the protections afforded under PBRs proportional to the efforts of breeders?

The ASF believes that protections afforded under PBRs are proportional to the efforts of breeders. However the protection is greatly diminished due to poor enforcement.

The Advisory Council on Intellectual Property (ACIP) is an independent body that advises the Minister on intellectual property matters. In 2005, the Government asked ACIP to:

inquire, report and make recommendations to the Australian Government on issues relating to the enforcement of plant breeder’s rights in Australia and to consider possible strategies to assist Australian plant breeder’s rights holders effectively enforce valid rights. The review should include a consideration of whether any practices and procedures relating to the enforcement of Plant Breeder’s Rights (PBR) are appropriate to be referred to the Federal Magistrates Court.

Table 1 summarises the review process and the ASF’s involvement.

Table 1. Enforcement of plant breeder’s rights in Australia Process Summary

Release date	Key publication type
May 2006	Review advertised
March 2007	ACIP circulated Issues Paper
May 2007	ASF provided submission to Issues Paper
June 2008	ACIP released Options Paper
August 2008	ASF provided submission to Options Paper
January 2010	ACIP releases Final Report
June 2010	Australian Government releases response to ACIP Final Report

ACIP supported many of the suggestions proposed by the ASF and believed that there were a number of barriers to the effective enforcement of plant breeder's rights (PBR) and that these discouraged the development of new plant varieties. ACIP recommended 22 legislative and procedural changes. The most significant recommendations that were accepted by government include;

- Making a new right applying to the purchase of propagating material available to PBR owners, to enable the industry to collect royalties more efficiently
- Including PBR matters within the jurisdiction of the second tier of the Federal Court to provide PBR owners with an appropriate forum for enforcing their rights
- Establishing an Expert Panel to provide guidance and opinions on PBR issues and law
- Introducing an Information Notice system that enables PBR owners to obtain information from alleged infringers on the source of plant material
- introducing powers to enable Customs to seize goods at the border that allegedly infringe PBR
- introducing exemplary damage provisions into the Plant Breeder's Rights Act 1994 (the PBR Act)
- ACIP also recommended that no changes be made to the farm saved seed provisions

Since the release of the Government response to the ACIP final report in June 2010, only including PBR matters within the jurisdiction of the second tier of the Federal Court has been put into legislation meaning that there are some serious deficiencies need to be remedied in the Australian Act

Is there evidence the introduction of PBRs has contributed to the development of Australia's seed export industry? Is this a suitable role for IP policy?

The ASF believes the introduction of Plant Breeder's Rights has contributed significantly to the development of Australia's seed export industry. However this contribution is limited by shortcomings in the enforcement of PBR in the current act and lack of protection in some export destinations.

Australia has developed and protected overseas markets for seed for sowing by providing improved genetics to specific markets. PBR legislation provides breeders with confidence to invest in the genetics for such markets and produce them in Australia without fear of losing ownership. For example, Australia has bred a variety of vetch that has a degree of frost resistance combined with good biomass for Europe and Northern Asian markets. The combination of these characteristics are not necessarily required for the domestic market and without PBR the substantial investment would not have occurred or be ongoing.

Similarly, Australian pasture seed companies have registered new varieties with PBR domestically and internationally. These new varieties have been sold or are being trialled in countries including Spain, South Africa, Argentina, Uruguay and Argentina. Breeding programmes such as this requiring millions of dollars investment would have not been contemplated without a strong PBR system.

Lucerne, Australia's largest seed for sowing export species by volume, has targeted several markets with proprietary products that has replaced the low value commodity. While many of the destination markets do not offer PBR protection, the destination use generally ensures the varieties will not be grown for seed. PBR does however allow the Australian production of improved varieties destined for these markets with the reduced risk of them being produced and sold by non licensees.

Within Australia's horticultural seed industry, leaving aside other factors such as quality, consistency of supply and price, an overseas customer is confident to produce a broad range of crops in countries such as Australia which has PBR legislation. This ensures Australia has access to world leading genetics and allows it to participate in the valuable countercyclical seed production for the Northern Hemisphere as well as an alternate production location for the Southern Hemisphere season market. International Seed companies are now limiting seed production in countries where their germplasm is not safe because of insufficient IP protection. These companies explore all possibilities to host some of this production in countries like Australia.

How adaptable is the system of PBRs to technological change? Should PBR legislation be amended in light of technological developments, or can new high-value plant varieties (however they are developed) be adequately supported by patent laws?

While PBR protection is mostly used for new varieties developed by conventional breeding methods, PBR is a protection system for plant varieties. There is no relation between the eligibility for a PBR and the technology used for developing a plant variety.

Ends