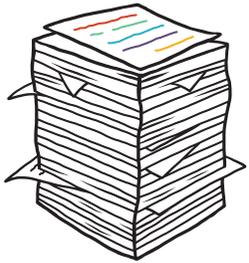
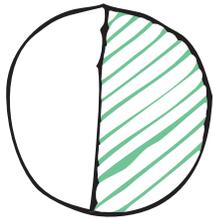


The Economic Impact of Plant Breeder's Rights in Australia



10,000+

plant variety rights applied for in Australia since the system was established in 1988



55%

of all PBR applications are made by firms/individuals with an address outside Australia – leading source countries are USA, Netherlands and Germany

PBR creates an incentive to invest in domestically bred cultivars and encourages international transfer of varieties and germplasm



Some end use sectors rely heavily on domestic breeding and others on overseas breeding



% domestic applications

\$12 billion

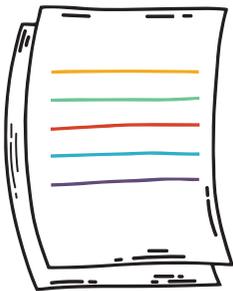
collective turnover of Australian firms who own PBR over the 5 years to 2020

78,000

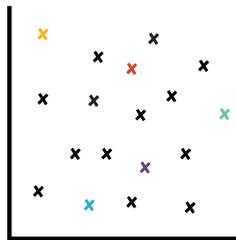
PBR applying firms employ 78,000 full time equivalent (FTE)



Top location of Australian applicants – NSW, ACT and Vic



No correlation between PBR usage and plant-related patents – only 34 organisations have both



The importance of PBR to a sector is not correlated with the number of applications

The 1,154 applications in broadacre crops drive large production (\$12 billion in 2020). Other sectors are more PBR intensive such as ornamentals and turf with 5,486 applications supporting production (\$1.5 billion in 2020)

Largest sectors by end-use, 2020 production



Wheat (\$4.9 billion)



Barley (\$3.0 billion)

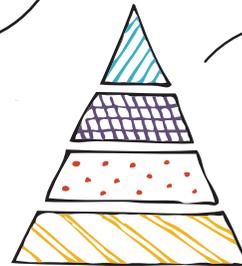


Forage crops (\$2.8 billion)

Economic impact of new cultivars (e.g. wheat) released in the average year = \$35 million each year

PBR is key to inducing investment in variety improvement

Additional economic output from new cultivars each year is \$1.5 billion (estimated)



Economic impact comprises both the value captured by PBR holders and the value new cultivars generate when used in downstream sectors

PBR are likely to have the largest economic impact where: output is high, yield growth is high, alternative means of appropriation are limited

(e.g. open-pollinated cultivars dominate – broadacre crops including wheat, barley and canola)



Research gaps:

role of PBR in appropriating returns, investment in breeding and commercialisation.

To be explored in 2022/2023 via survey.