

Plant Breeders' Rights (PBR) and the unauthorised propagation of strawberry varieties

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Queensland Strawberry Growers 'Association (QSGA) manages the commercialisation of subtropical strawberry varieties bred through the Australian Strawberry Breeding Program (ASBP) for the Intellectual Property owners, through a master licence arrangement. These varieties include Red Rhapsody, Rubygem, Sundrench, Sunglow, Suncoast Delight, Aussiegem, Scarlet Rose and many others.

What is PBR?

Plant breeders' rights (PBR), also known as plant variety rights (PVR), are rights granted to the breeder of a new variety of plant that affords the breeder full and exclusive control over the propagating material (including but not limited to seed, cuttings, divisions, vegetatively propagated plants, tissue culture) and harvested material (cut flowers, fruit, foliage) of a new variety for a number of years.

PBR is a complex process, but the important take away is that any material over which PBR has been granted is fully protected by the laws of Australia and severe penalties can be applied to anyone who infringes that legal protection.

What are the criteria for a new plant to be eligible for PBR?

A variety must be new, distinct, uniform and stable.

- **NEW** – it has not been commercialised for more than one year in the country of protection
- **DISTINCT** – it differs from all other known varieties by one or more important botanical characteristics, such as height, maturity or colour
- **UNIFORM** – the plant characteristics are consistent from plant to plant within the variety
- **STABLE** – the plant characteristics are genetically fixed and, therefore, remain the same from generation to generation, or after a cycle of reproduction in the case of hybrid varieties

How does someone apply for PBR to protect a new variety?

The average time for Plant breeder's rights registration is about two and a half years from start to finish. You will need to submit an application in two parts to IP Australia (www.ipaustralia.gov.au) and hire a qualified person to assist with a growing trial. There are fees at various stages of the process.

Where can you find more information?

The Australian Government has an extensive website that gives you all of the information you need to understand the PBR of varieties within each industry. Visit www.ipaustralia.gov.au/plant-breeders-rights

How were the subtropical strawberry varieties developed?

The original breeding program for strawberries in Australia was started by the Queensland Department of Agriculture and Fisheries around 30 years ago. The breeding of strawberry varieties starts with a crossing program, and then the growing and early evaluation of seedlings is a lengthy process spanning 5-7 years. The Australian Strawberry Breeding Program (ASBP) project for the subtropical node breeding program was tendered out by Hort Innovation and, through a competitive tender process, was awarded to the Queensland Department of Agriculture & Fisheries (QDAF).

It is important to note that any funds from the sale of these new varieties are returned to the IP holders — Hort Innovation and Department of Agriculture and Fisheries (Queensland) — where they may be re-invested in the future development of the Strawberry Industry in Australia.

A recent policy change by the Hort Innovation Board means the PBR royalty funds currently held by Hort Innovation can be spent on activities outside of R&D such as marketing. SAI will consider the best use of these funds in upcoming meetings bearing in mind that they remain under the management of Hort Innovation.

Why is there a commercialisation partner?

Once the varieties were fully assessed, the next task for Hort Innovation and DAF was to identify an experienced commercialisation partner. A tender was issued to the open market, and interested businesses were asked to submit a proposal against a detailed set of requirements laid out in the tender document called a Request for Proposal (RFP). Anyone based in Australia who met the RFP criteria could apply. The process of commercialising a new variety of plant requires a very detailed understanding of the legislative framework protecting intellectual property in Australia, the ability to tightly manage access to the new plant material through licensed plant propagators and the processes in place to manage the financial aspects of the arrangement.

Why was QSGA selected in the tender process?

An independent panel set up by QDAF assessed all of the tender applications and QSGA was selected to commercialise the subtropical strawberry varieties. QSGA now has several years of experience managing the commercial arrangements behind some of the most widely grown strawberry varieties currently in Australia. QSGA responded to the open tender using the knowledge and expertise it had built in the strawberry industry and was chosen by a competitive evaluation as the commercialisation partner for the new subtropical strawberry varieties.

Unauthorised Propagation

QSGA has licensed several plant propagators throughout Australia to spread risk, and to minimise any disruption to growers of the subtropical strawberry varieties. For example, if there was a pest or disease outbreak occurring in one part of Australia, growers would hopefully be able to obtain plants from another geographic area. Having several propagators also provides competition and choice for strawberry fruit producers when ordering plants.

Despite common belief, growing bare-rooted runners and plug plants for the Australian industry is a highly sophisticated and complex process, which requires considerable capital and long-term commitment. Unless special multiplication processes are put in place, it normally takes three years for a newly licensed propagator to produce the first crop for sale. This is usually the only business conducted by plant propagators and they rely on growers signing individual non-propagation agreements to stop unauthorised propagation. It is illegal to multiply plants by planting runners from newly planted plants, but original plants purchased may be ratooned two or three times.

Runners vs Ratooning

When a strawberry runner is planted, the mother plant will send out runners (also known as stolons). These can be detached from the mother plant and re-planted as a new separate plant.

It is **ILLEGAL** to plant runners that have grown from purchased plants that are protected by PBR.

Ratooning is the practice of cutting away most of the above-ground portion of a strawberry plant but leaving the roots and the crown intact so as to allow the plant to recover and produce a fresh crop in the next season.

This practice is not recommended but is LEGAL to perform.

This protects both the variety Intellectual Property owners by ensuring proper royalties are collected and the propagation businesses whose income is based on licensed plant propagation sales.

Please note that innocent infringements can occur.



Strawberry runner with new 'daughter' plant that should be removed and destroyed.

Photo credit: Anest, Shutterstock

Why do we need royalties?

Breeding programs are expensive and take time. They involve crossing and selecting different varieties, germinating seeds from the cross, planting seedlings and measuring many facets of their performance.

For strawberries, one cycle may take several years from germinating a seed to assessing performance of a single seedling, and then planting it again in a semi-commercial block of strawberries to evaluate commercial performance.

Royalties make this process financially possible by providing an income stream for what would otherwise be an expenses-only undertaking. A royalty is a payment to the Intellectual Property (IP) holders of a new strawberry variety.

The IP holders can take a range of measures to protect their variety such as gaining PBR (a legislated framework with penalties for non-compliance), variety patenting and private agreements. The royalty can be charged in many ways, but in the Australian strawberry industry, it is typically a one-off plant royalty per thousand plants at the time of plant purchase.

Usually, it is collected by the licensed nursery, and grower purchasers sign a non-propagation document before plants are delivered.

What should you do if you become aware of unauthorised propagation?

Contact QSGA (anonymously if you wish) and we will notify QDAF and Hort Innovation, and these IP holders will consider legal proceedings.

Potential offenders need to be aware that the PBR Act allows for fines up to \$111,000 for unauthorised propagation (500 penalty points at \$222 per point Federally).

If in doubt, please contact QSGA, and discuss any issue with us. We plan to move to a satellite sensing system to monitor unauthorised strawberry plantings in the near future.



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