

What happened in the **Sweetpotato** Fund last year?

Annual Report 2020/21



About Hort Innovation and the Sweetpotato Fund

Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australia's horticulture sector. We work closely with industry to invest the sweetpotato R&D and marketing levies, together with Australian Government contributions, into key initiatives for growers, through the Sweetpotato Fund. We're extremely proud of the work we do to help drive productivity, profitability and demand for sweetpotato growers, and for the horticulture sector at large.

Throughout another challenging year for the horticulture sector, activity in the Sweetpotato Fund remained strong. Read on for an overview of what was delivered.

We also encourage you to download a copy of the overarching Hort Innovation Annual Report 2020/21 at www.horticulture.com.au/annual-report-portal to better understand how Hort Innovation worked for the benefit of the horticulture sector during the year.

In this report...

Sweetpotato Fund snapshot 2020/21 1

Just some of the things delivered for you during the year 2

Here's what your fund invested in over the year 3

Making investments in 2020/21 4

Financial operating statement 6

What will be the fund's focus over the next five years? 7

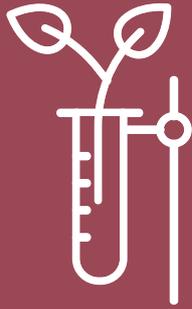
R&D case study 8

Trade case study 10

Marketing case study 11

Minor use permits 13

Appendix: How strategic levy investments are made 15



\$843,806

invested in R&D



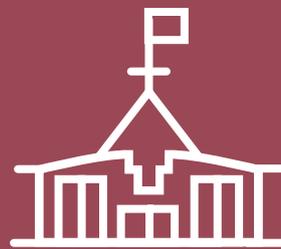
\$870,536

invested in marketing



19

active R&D investments



\$1.51M

in levies collected

by the Government and passed on to Hort Innovation for investment



15%

Australia's sweetpotato production grew in value from 2018/19 to 2019/20 by 15 per cent



9%

Production volume grew at an average annual rate of 9 per cent over the five years to 2019/20



88%

Almost all of Australia's sweetpotatoes are grown in Queensland and New South Wales, with 88 per cent of production volume coming from Queensland

These facts and more can be found in the Australian Horticulture Statistics Handbook, which is delivered by Hort Innovation each year. The handbook is packed with horticulture statistical information and analysis for some 75 categories, for use by individual industries and the wider sector. The 2019/20 edition was released in early 2021 and features an interactive dashboard format for desktop users. See www.horticulture.com.au/horticulture-statistics-handbook.

Just some of the things delivered for you during the year



A new investment to improve the quality of sweetpotato across the supply chain through investigating pre- and post-harvest quality issues – see hortinn.com/pw20000



Preparation support for pest incursions such as fall armyworm and serpentine leafminer, including emergency minor use permits and longer-term investments to bolster the horticulture sector's response



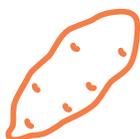
The sweetpotato Harvest to Home dashboard providing regular household purchase data and insight reporting, at www.harvesttohome.net.au



A domestic marketing campaign and The Good Mood Food across-horticulture campaign to support industries through the effects of another challenging year – see www.horticulture.com.au/the-good-mood-food*



Investments in the Hort Frontiers strategic partnership initiative to address longer-term and often complex issues and opportunities critical to the future of Australian horticulture – see www.horticulture.com.au/hort-frontiers*

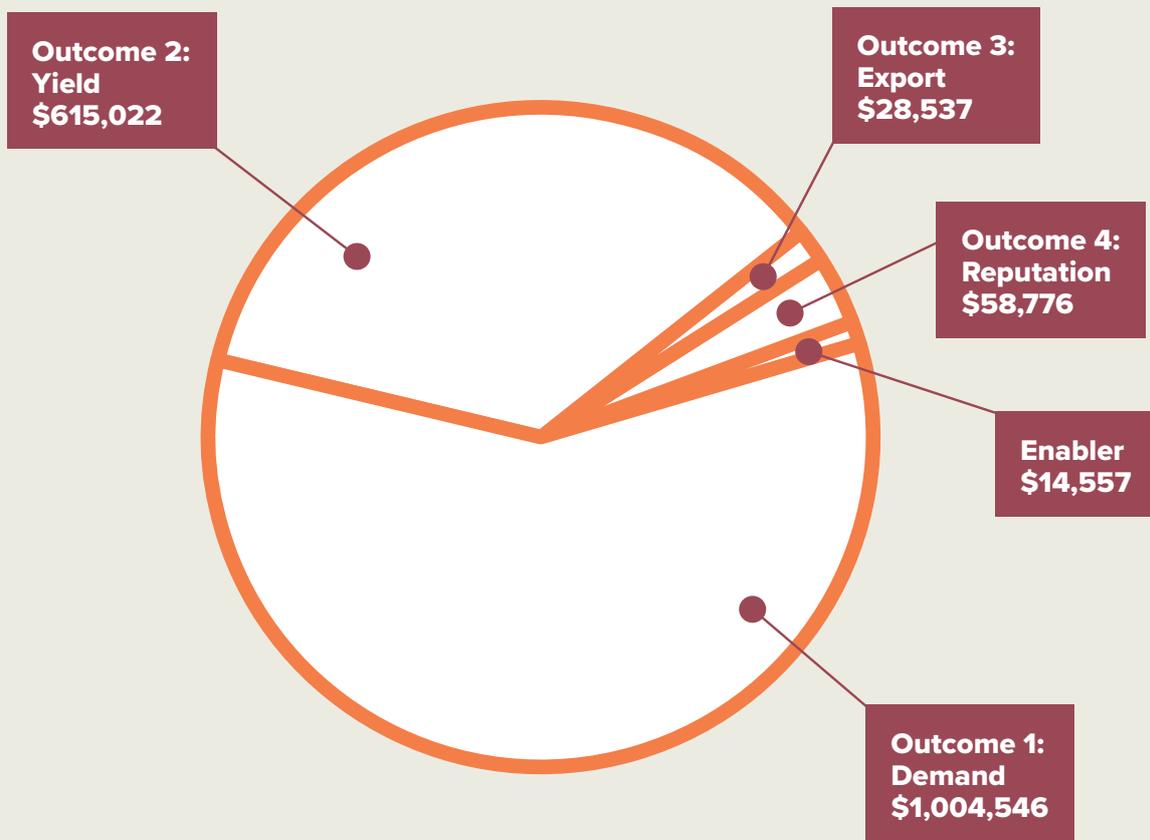


Projects supported by grants secured by Hort Innovation, ranging from cross-sector Rural R&D for Profit initiatives to horticulture-specific work to aid in access to crop protection products – see the Hort Innovation Annual Report 2020/21 for more*

You can visit www.horticulture.com.au/sweetpotato at any time to access information on new, ongoing and completed projects, and to download resources produced by levy investments such as fact sheets and guides.

*These initiatives were delivered outside of the Hort Innovation Sweetpotato Fund and, in most instances, did not involve the industry levy

Here's what your fund invested in over the year



Investments that are specific to the Hort Innovation Sweetpotato Fund are guided by the sweetpotato Strategic Investment Plan (SIP). The SIP features priority outcome areas that have been identified and agreed upon by the industry, and Hort Innovation works to invest in R&D and marketing initiatives that are aligned to these.

In the above chart, you can see how project expenditure in the Sweetpotato Fund during 2020/21 was aligned to the SIP. Each project has been allocated to a SIP outcome based on its primary objective.

Expenditure on projects classified as 'enabler' support the broader delivery of the industry's strategic investment plan, such as impact assessments.

Which projects were in each of the SIP outcome areas?

Outcome 1: Demand

By 2021, domestic per capita consumption of fresh Australian sweetpotato has increased, supported by positive consumer perceptions of product value

Marketing activities during 2020/21 contributed to demand-related outcomes in the SIP. You can read more about the sweetpotato marketing campaign on p11.

| Project title and code | 2020/21 investment | Status | More information |
|--|--------------------|---------|--|
| Australian sweetpotato market insights reports (PW19000) | \$67,275 | Ongoing | hortinn.com/pw19000 |
| A review of the scientific literature on the health and nutrition of sweetpotato (PW20001) | \$13,190 | Ongoing | hortinn.com/pw20001 |
| Price elasticity of demand for sweetpotato (PW20003) | \$45,425 | Ongoing | hortinn.com/pw20003 |

Outcome 2: Yield

By 2021, the Australian sweetpotato industry has increased marketable yield per hectare through adoption of technology, management best practice and cultivars

| Project title and code | 2020/21 investment | Status | More information |
|--|--------------------|-----------|--|
| Field-based testing for fall armyworm, <i>Spodoptera frugiperda</i> (MT19014) | \$8,000 | Ongoing | hortinn.com/mt19014 |
| Identifying potential parasitoids of the fall armyworm, <i>Spodoptera frugiperda</i> , and the risk to Australian horticulture (MT19015) | \$15,000 | Ongoing | hortinn.com/mt19015 |
| Integrated pest management of nematodes in sweetpotatoes (PW17001) | \$413,434 | Ongoing | hortinn.com/pw17001 |
| Investigation of skin hardening and splitting disorders in sweetpotato (PW18001) | \$19,975 | Completed | hortinn.com/pw18001 |
| Sweetpotato industry minor use program (PW18002) | \$350 | Ongoing | hortinn.com/pw18002 |
| Improving quality of sweetpotato across the industry supply chain (PW20000) | \$141,277 | Ongoing | hortinn.com/pw20000 |
| Generation of data for pesticide applications in horticulture crops 2018 (ST17000) | \$16,986 | Ongoing | hortinn.com/st17000-sweetpotato |

Investments

Outcome 3: Export

By 2021, the Australian sweetpotato industry has diversified its markets through export development and value adding

| Project title and code | 2020/21 investment | Status | More information |
|---------------------------------------|--------------------|---------|--|
| Horticulture trade data (MT19005) | \$3,937 | Ongoing | hortinn.com/mt19005 |
| Sweetpotato export strategy (PW20004) | \$24,600 | Ongoing | hortinn.com/pw20004 |

Outcome 4: Reputation

By 2021, the Australian sweetpotato industry has secured and strengthened its good reputation with the community, customers and governments

| Project title and code | 2020/21 investment | Status | More information |
|--|--------------------|---------|--|
| Review of the biosecurity plan for the sweetpotato industry (PW17000) | \$6,000 | Ongoing | hortinn.com/pw17000 |
| Risk and crisis management planning for the sweetpotato industry (PW20002) | \$52,776 | Ongoing | hortinn.com/pw20002 |



Financial operating statement

Sweetpotato Fund Financial operating statement 2020/21

| | R&D (\$) | Marketing (\$) | Total (\$) |
|---|------------------------|------------------------|------------------------|
| | 2020/21 July – June | 2020/21 July – June | 2020/21 July – June |
| OPENING BALANCE | 1,123,655 | 1,174,348 | 2,298,003 |
| Levies from growers (net of collection costs) | 496,164 | 1,016,151 | 1,512,315 |
| Australian Government money | 498,078 | – | 498,078 |
| Other income* | 3,548 | 4,029 | 7,577 |
| TOTAL INCOME | 997,790 | 1,020,180 | 2,017,970 |
| Project funding | 843,806 | 870,536 | 1,714,342 |
| Consultation with and advice from growers | 4,258 | 2,839 | 7,097 |
| Service delivery | 148,093 | 179,391 | 327,484 |
| TOTAL EXPENDITURE | 996,157 | 1,052,766 | 2,048,923 |
| Levy contribution to across-industry activity | – | – | – |
| CLOSING BALANCE | 1,125,288 | 1,141,762 | 2,267,050 |
| Levy collection costs | 10,897 | 29,336 | 40,233 |

* Interest, royalties

Levy collection costs – These are the costs associated with the collection of levies from industry charged by Levy Revenue Services (LRS)

Service delivery – Also known as Corporate Cost Recovery (CCR), this is the total cost of managing the investment portfolio charged by Hort Innovation

Making sure that levy investment decisions align with industry priorities

What will be the Sweetpotato Fund's focus over the next five years?



The sweetpotato Strategic Investment Plan (SIP) was created in 2021 to reflect current priorities for the sweetpotato industry. This involved extensive consultation with sweetpotato growers and industry stakeholders, including the Australian Sweetpotato Growers' Incorporation. The SIP is the roadmap that helps guide Hort Innovation's oversight and management of individual levy industry investment programs.

The sweetpotato SIP lays the foundation for decision making in levy investments and represents the balanced interest of the particular industry from which the levy is collected. The most important function of the SIP is to make sure that levy investment decisions align with industry priorities.

The sweetpotato SIP identifies four outcome areas that will contribute to the productivity and profitability of the sweetpotato sector. They are:

- Industry supply, productivity and sustainability
- Demand creation
- Extension and capability
- Business insights.

What projects will the fund be investing in next year?

The sweetpotato Annual Investment Plan (AIP) 2021/22 will detail how levy funds will be spent over the 12-month period. Investment decisions will be guided by the industry SIP and prioritised based on potential industry impact, as well as availability of levy funds.

The AIP is developed by Hort Innovation, and is informed by the SIP and industry consultation, including collaboration with the Australian Sweetpotato Growers' Incorporation. The AIP is then discussed with the industry SIAP for feedback and prioritisation. All investments will need to link to the industry's SIP by addressing a minimum of one KPI against a strategy under one of the four outcomes.

Annual Investment Plans will be published each year over the lifespan of the SIP and industry stakeholders will be advised via established communication channels.

Hort Innovation will continue to report on fund performance regularly, with more focus on reporting on outcomes and the impact of investments.



When available, you can visit www.horticulture.com.au/sweetpotato-fund-management to view both documents and get a full picture of how your levy will be invested over the next five years.

Meeting the mixed demands of the marketplace and the environment

This five-year research project has delivered top quality, pest-free sweetpotatoes, grown in a clean, green, sustainable way.

The challenge

Nematode pests are one of the biggest environmental threats to the Australian sweetpotato industry. The challenge is how to effectively deal with these pests, while producing a product that meets consumer demands around quality and environmental impact.

Meet Matthew

Northern NSW sweetpotato grower, Matthew Pritchard, led a large-scale demonstration trial on his property as part of this program. As a result, he's incorporated new strategies into his day-to-day farming operation, delivering a high-quality product with a reduced environmental impact. Better yet, it's improved his bottom line.

"Over the last few years, we've learnt to identify our major sweetpotato pests and understand their lifecycles, which has allowed us to specifically time crop protection products for better outcomes," says Matthew.

"We've really focused on cultural controls to reduce numbers of sweetpotato pests before planting. We've focused on residue removal, removal of volunteer plants in cover crops, and great farm hygiene.

"Prior to the adoption of these techniques the industry had a blanket chemical approach to sweetpotato pests. We were using it just in our normal irrigation system and we found that we got inconsistent results because of poor attention to detail with product placement.

While nematode trials are still ongoing, findings from this study have led to improved chemical application and soil penetration, meaning less chemicals, better yields, and lower costs.

"The outcome of using these improved techniques means our chemicals are more targeted, giving us more consistent results. In previous years we've had some

significant losses due to nematodes of somewhere between 10 and 20 per cent per annum. We've now reduced that to less than five per cent".



Matthew Pritchard, Northern NSW sweetpotato grower



The approach

In the first phase of the project, a series of nematode management grower workshops were conducted to arm growers with a better understanding of nematode pests and their lifecycles. Growers were also introduced to the very latest methods to monitor them in their farming systems.

Two large scale trial sites at a Bundaberg research facility, and one on-farm research trial will form the focus of the next phase of the project, once pathogenicity screening for additional nematode species is further advanced.

The impact

Traditionally, chemicals have been the only way to control nematodes during the cropping period, but ongoing field trials are demonstrating potential benefits from managing pest populations between crops with a growing understanding of soil biology and improved cultural practices. The trials showed that in this way, pest pressure can be significantly reduced

prior to planting. Techniques successfully trailed and implemented included better cover crop planting and management, plus a more refined delivery of chemicals during the growing period. Pathogenicity trials have also been a large part of this project to understand nematode host specificity to guide on farm field trials of rotational cover crops.

“

“Over the last few years, we’ve learnt to identify our major sweetpotato pests and understand their lifecycles, which has allowed us to specifically time crop protection products for better outcomes.”

Matthew Pritchard,
Northern NSW sweetpotato grower

For more information, visit hortinn.com/pw17001

Project details

Integrated pest management of nematodes in sweetpotatoes (PW17001)

Key research provider: The Queensland Department of Agriculture and Fisheries

Start date: October 2018

Expected end date: August 2023

Estimated value for life of project: \$2,238,690

Finding the sweet spot for Australian sweetpotato exports

With this investment, we are identifying potential export opportunities for sweetpotatoes and areas for potential future export investment.

The challenge

The sweetpotato industry is in need of an export strategy to take advantage of the global expansion in demand.

Meet Russell

Russell McCrystal grows sweetpotato in South Kolan, west of Bundaberg in Queensland. Domestic demand for his product has been good in recent years, but he believes there's potential for growth in exports, especially with help from this program.

"This program will help us to better assess potential export opportunities and make better informed decisions around which markets to pursue," says Russell. "There's not a lot of knowledge in our sector because we've depended on domestic markets for so long. We've had great growth."

"That's where this program comes in – it's equipping us as an industry with the tools to make better assessments and build our understanding of what's required to successfully export."

The approach

Although a relatively new initiative, the Sweetpotato Export Strategy will help to identify and prioritise opportunities for exporting Australian grown sweetpotatoes to international markets, while also providing the domestic industry with the information they need to guide their future activities, such as potential investments into exports activities.

The initial goal is to provide an overview of the global demand for sweetpotatoes, as well as current trade barriers, to identify potential market opportunities for Australia's internationally competitive product.

The impact

The investment is expected to significantly help exports as the years progress and provide a solid foundation from which to grow over coming decades. With an increased demand due to global expansion of sweet potato consumption, this investment is developing a plan to put Australian growers in a prime export position.

“

"This program will help us to better assess potential export opportunities and make better informed decisions around which markets to pursue."

Russell McCrystal, sweetpotato grower, South Kolan, Queensland

For more information, visit hortinn.com/pw20004

Project details

Sweetpotato export strategy (PW20004)

Key research provider: Turracraft Pty Ltd

Start date: May 2021

Expected end date: November 2021

Estimated value for life of project: \$61,500

Tapping into the taste, ease, and versatility of Australian sweetpotato to boost sales

The marketing aim for 2020/21 was to increase awareness around the numerous health and nutritional benefits of sweetpotato, increasing demand and purchase frequency.

The opportunity

With many consumers unaware of the health benefits, versatility, and ease with which sweetpotato can be added to a wide range of meals, there was an opportunity to grow the market through consumer awareness and education.

The approach

With positive publicity, strong content, targeted digital and social media, influencers and a robust in-store retail presence, the aim was to increase awareness of sweetpotato and make it the healthy vegetable of choice to add to any meal.

To secure media coverage Australian Sweetpotatoes engaged dietitian, Marika Day as campaign spokesperson, bolstering the health credentials of sweetpotatoes. Marika developed six new quick, tasty, and healthy sweetpotato recipes, all beautifully photographed by renowned food stylist Bonnie Coumbe.

The PR campaign achieved widespread media coverage, appearing in titles including *Daily Mail*, *Lifehacker*, *Yahoo*, *Interiors Addict*, and *Australian Women's Health*.

In addition, popular and relatable influencers were engaged to share how they #GetSupercharged with Australian Sweetpotatoes – tapping into ease, taste, health, and versatility.

The influencers included Katie Williams, an ex-sprinter and Big Brother contestant, former footballer and fitness instructor Ben Seymour, and TikTok foodie sensation *Cooking with Ayeh*.

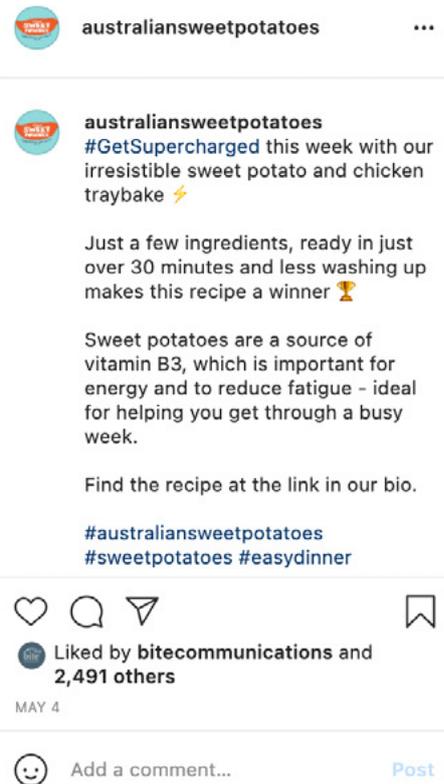
Cooking with Ayeh's sweetpotato toast hack went viral, clocking up more than 880,000 views across Instagram and TikTok.

#GetSupercharged focused on three main social media content pillars: (i) super tasty, (ii) super healthy, and (iii) super helpful. The campaign achieved more than 4.4 million impressions on Facebook and Instagram, with over 30,000 people liking, sharing and commenting on the content.



Continued

Marketing case study



To inspire usage and encourage purchase, a recipe led advertisement was featured in Coles Magazine, which reaches 4.4 million Australians every month. Australian Sweetpotatoes also had a dedicated shop page on Coles Online throughout June and featured in the June Flybuis email.

The outcome

Thanks to great content, targeted nutrition and lifestyle messaging and PR initiatives, hundreds of thousands of potential new consumers were exposed to the campaign and the many benefits of Australian sweetpotatoes.

“Production will continue to increase, and if grower returns are to be maintained, the production growth must be matched by increasing demand.

An effective marketing program, funded by the grower’s levy funds, is important to underpinning and growing domestic consumer demand. Having a consistent supply of quality sweetpotatoes, with product presented attractively in retail displays, are the foundations to driving demand. This needs to be supported by marketing messages about the nutrition qualities and diversity of serving options. Equally critical is matching marketing campaigns to periods of increased supply.”

“

“An effective marketing program, funded by the grower’s levy funds, is important to underpin and grow domestic consumer demand. Having a consistent supply of quality sweetpotatoes, with product presented attractively in retail displays, are the foundations to driving demand.”

**Peter Long, Executive Officer,
Australian Sweetpotato Growers’ Association**

Read more about the campaign at hortinn.com/sweetpotato-marketing-snapshot

Project details

These marketing activities are strategic levy investments in the Hort Innovation Sweetpotato Fund

Minor use permits

The Hort Innovation Sweetpotato Fund supports the submission of applications for new and renewed minor use permits for the industry, as well as data generation activities to support chemical permits and registrations, and strategic agrichemical reviews.

Together these efforts provide industry access to safe, relevant and effective chemicals for the management of pests, weeds and diseases.

For full details on these activities and links to relevant information, visit hortinn.com/sweetpotato-minor-use.

Permits in 2020/21

During the 2020/21 financial year, a successful new permit application for PER87809 was prepared by Hort Innovation and submitted to the APVMA, facilitated through the *Sweetpotato industry minor use program* (PW18002). A further permit renewal for PER12047 was applied for during the year and was approved just outside of the 2020/21 period.

Meanwhile, fall armyworm – an incredibly destructive exotic pest – was detected on Australian shores for the first time in 2020. To support readiness and protect the horticulture sector, emergency permit PER89870 was issued by Hort Innovation in 2020/21 to acquire crop protection chemicals for the sweetpotato industry.

Details for these and all other permits can be found in the following table.

Current permits

Below is a list of minor use permits for the sweetpotato industry, current as of 27 August 2021.

| Permit ID | Description | Date issued | Expiry date | Permit holder |
|-----------------------|---|-------------|-------------|--|
| PER81876 Version 3 | Abamectin / Root and tuber vegetables / Vegetable leafminer (suppression only) | 24-Jun-16 | 30-Apr-24 | Hort Innovation |
| PER84249 Version 2 | Abamectin, Bifenthrin, Lambda-cyhalothrin, Methomyl / Potato and sweetpotato / Tomato potato psyllid | 16-Jun-17 | 31-Jul-25 | NSW Department of Primary Industries (DPI) |
| PER14583 Version 4 | Chlorpyrifos / Various vegetables including sweetpotato / Sweet potato weevil and wireworm | 01-Apr-14 | 31-Oct-21 | Hort Innovation |
| PER84805 | Cytraniliprole / Sweet potatoes / Tomato potato psyllid | 06-Dec-17 | 31-Dec-22 | Hort Innovation |
| PER82556 | Fluazifop-P / Sweetpotato / Various grass weeds | 16-Apr-14 | 31-Jan-23 | Hort Innovation |
| PER82428 Version 4 | Methomyl (Marlin) / Sweet potato / Helicoverpa, cucumber moth, cluster caterpillar, loopers, webworm, rutherglen bug, thrips (including Western flower thrip) | 22-Apr-16 | 31-Mar-24 | Hort Innovation |

Continued

Minor use permits

Current permits (continued)

| Permit ID | Description | Date issued | Expiry date | Permit holder |
|-----------------------|--|-------------|-------------|-----------------------|
| PER13902 Version 2 | Phorate (Thimet) / Sweetpotato / Aphids, thrips, jassids and organophosphate susceptible two-spotted mite and wireworm | 02-Jan-13 | 31-Mar-23 | Hort Innovation |
| PER86443 | Pirimicarb (Primore) / Sweet potato / Aphids incl. green peach aphid and onion aphid | 19-Jun-18 | 30-Jun-23 | Hort Innovation |
| PER84757 Version 2 | Spinetoram (Success Neo) / Root and tuber vegetables / Tomato potato psyllid | 28-Nov-17 | 31-Aug-25 | Hort Innovation |
| PER84245 Version 2 | Spirotetramat (Movento) / Potato, Sweetpotato, tomato, capsicum, chilli pepper and eggplant (Field and protected cropping systems) / Tomato potato psyllid | 07-Apr-17 | 30-Apr-25 | NSW DPI |
| PER84743 | Sulfoxaflor / Root and tuber vegetables (including sweetpotato) / Tomato potato psyllid | 24-Oct-17 | 31-Oct-22 | Hort Innovation |
| PER12047 Version 4 | Thiabendazole (Tecto) / Sweetpotato / Field rots caused by scurf and root rot | 29-Jun-11 | 30-Sep-26 | Hort Innovation |
| PER13151 Version 3 | Zinc phosphide (RattOff) / Sweetpotato / House mice and introduced rats | 14-Dec-11 | 31-Mar-22 | Hort Innovation |
| PER89263 | Emamectin (Proclaim Opti Insecticide) / Root and tuber vegetables Fall armyworm (<i>Spodoptera frugiperda</i>) | 10-Mar-20 | 31-Mar-23 | Hort Innovation |
| PER89241 | Spinetoram / Various including sweetpotatoes / Fall armyworm | 06-Mar-20 | 31-Mar-23 | Hort Innovation |
| PER89293 | Methomyl / Sweetpotato / Fall armyworm (<i>Spodoptera frugiperda</i>) | 10-Apr-20 | 30-Apr-23 | Hort Innovation |
| PER89353 Version 2 | Chlorantraniliprole (Altacor Hort Insecticide / Coragen) / Vegetables: Root and tuber vegetables (except potatoes) Fall armyworm (<i>Spodoptera frugiperda</i>) | 05-May-20 | 31-May-23 | Hort Innovation |
| PER89870 | Spinosad (Entrust Organic) / Various including Root and tuber vegetables / Fall armyworm | 21-Jul-20 | 31-Jul-23 | Hort Innovation |
| PER87809 | Thiamethoxam and chlorantraniliprole (Durivo) / various specified crops / various specified pests QLD only | 06-Apr-21 | 30-Apr-24 | Northern Agriservices |

All efforts have been made to provide the most current, complete and accurate information on these permits, however you should always confirm all details on the APVMA website at portal.apvma.gov.au/permits. Details of the conditions of use associated with these permits can also be found on the APVMA site.

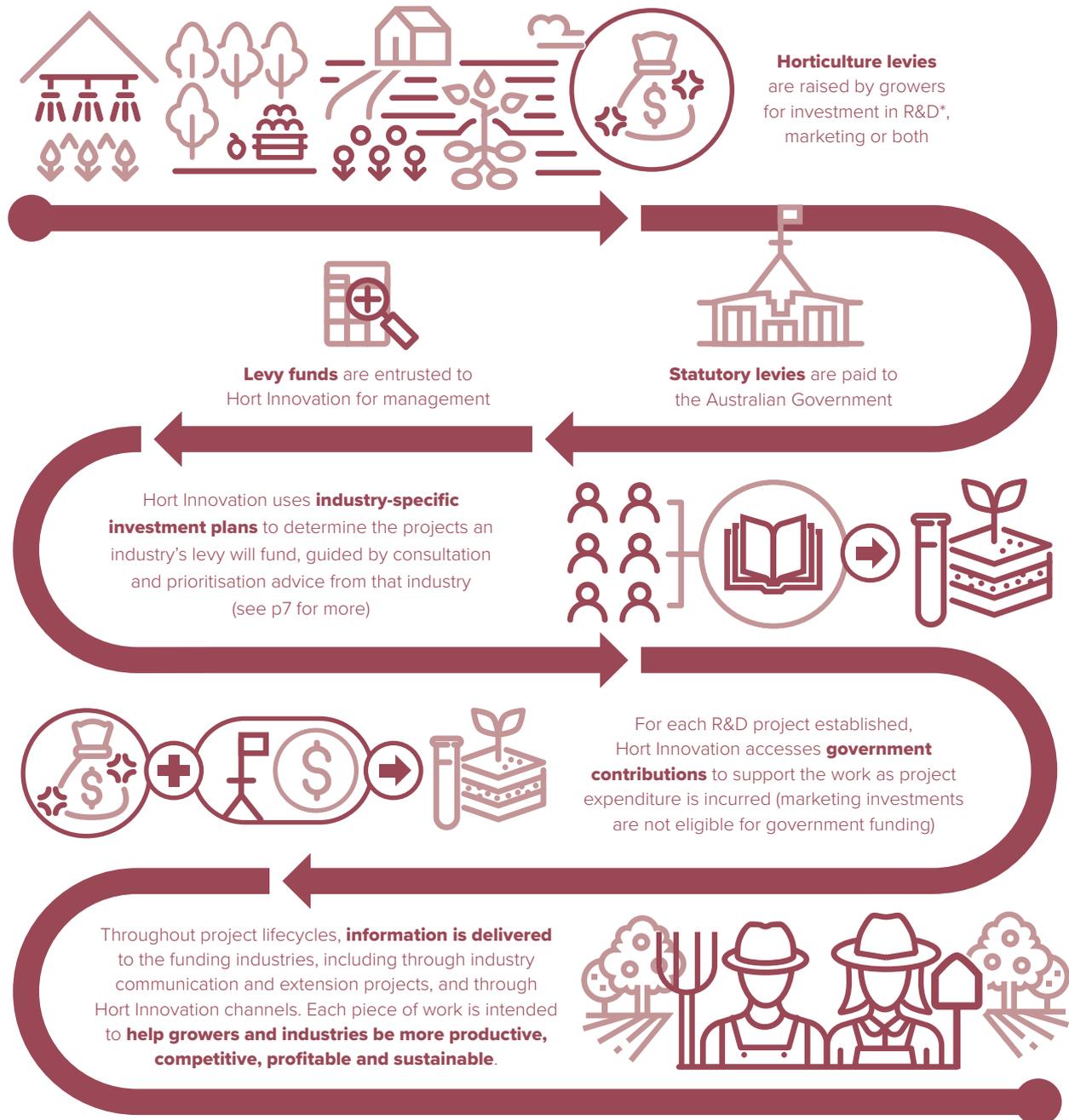
Keep up to date!

Find monthly minor use permit updates in our *Growing Innovation* e-newsletter.

Sign up for free at www.horticulture.com.au/sign-up.

How strategic levy investments are made in the Sweetpotato Fund

The below diagram shows how Hort Innovation makes strategic levy investments on behalf of horticulture industries. The sweetpotato R&D and marketing levies were invested this way during the year, guided by the sweetpotato Strategic Investment Plan 2017-2021 and advice from the industry’s investment advisory panel.



* Encapsulating extension and international trade

To learn more about funding specific to the Hort Innovation Sweetpotato Fund, visit www.horticulture.com.au/sweetpotato. During the year, other sources of funding were also used to support activities for the benefit of Australian horticulture, including grant funding secured by Hort Innovation, co-investment dollars brokered through our Hort Frontiers initiative and centralised strategic levy reserve.

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