

A photograph of several pistachio nuts on a wooden surface. Some nuts are whole, while others are cracked open, revealing the green and purple kernels. The wood grain is clearly visible.

Pistachio Fund

Annual Report 2019/20

About Hort Innovation and the Pistachio 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 voluntary pistachio R&D levy, together with Australian Government contributions, into key initiatives for growers, through the Hort Innovation Pistachio Fund. We’re extremely proud of the work we do to help drive productivity, profitability and demand for pistachio growers, and for the horticulture sector at large.

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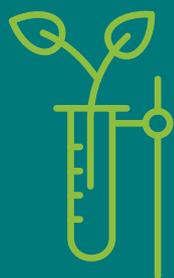
About the year

An intense and unpredictable year, 2019/20 certainly dealt challenges for the world, for Australian horticulture, and for Hort Innovation. There was ongoing drought, a devastating bushfire season, intense floods, the biosecurity threat of fall armyworm and, of course, the global and ongoing COVID-19 pandemic.

We encourage you to download a copy of the overarching Hort Innovation Annual Report 2019/20 at www.horticulture.com.au/annual-report-portal to better understand Hort Innovation’s responses to these events, and how the company was able to change its plans and priorities to best serve the sector.

Through it all, though, activity in the Hort Innovation Pistachio Fund remained solid, with some \$310,000 invested R&D for the industry, into five key projects. Read on for an overview of what was delivered.

2019/20 Pistachio Fund snapshot



\$310,000

invested in R&D



5

active R&D investments



\$143,000

in levies collected

through the pistachio collective industry fund passed on to Hort Innovation for investment

Did you know?



\$23.5M

Pistachio production value in Australia grew at an average annual rate of 12.7 per cent over the five years to 2018/19, to reach \$23.5 million



1324 tonnes

Export of Australian pistachios grew from 306 tonnes in 2013/14 to 1324 tonnes in 2018/19



3

Most pistachio production occurs across three key states: New South Wales (40 per cent of production volume), Victoria (35 per cent) and South Australia (20 per cent)

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 2018/19 edition was released in early 2020 and, for the first time, features an interactive dashboard format for desktop users. See www.horticulture.com.au/horticulture-statistics-handbook.



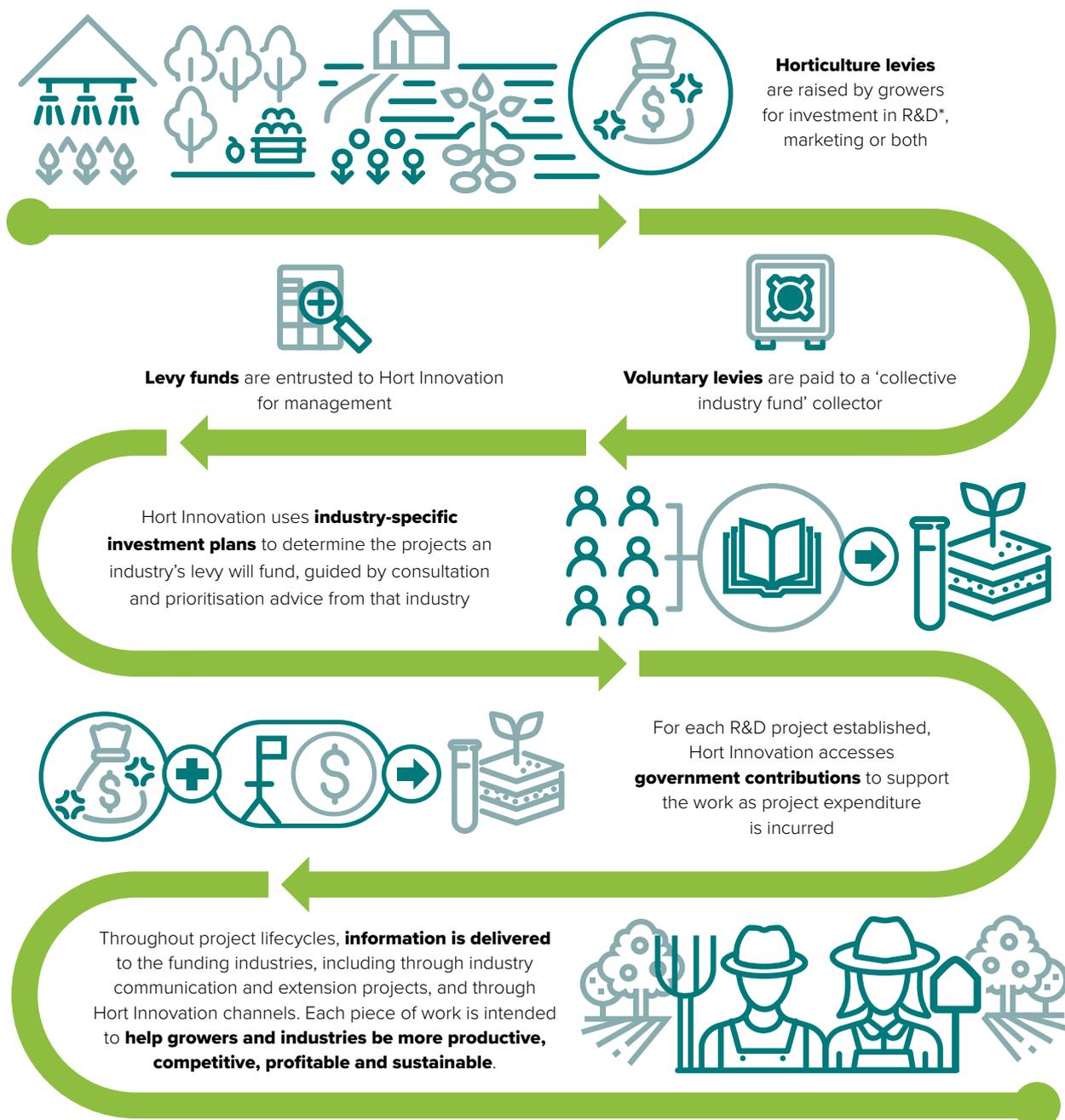
Just some of the things delivered for you during the year:

- ✓ **Increased understanding of how to manage insects in pistachio orchards**, with the completion of the first three-year project funded through the Hort Innovation Pistachio Fund ([p6](#))
- ✓ **Ongoing research into dark staining on pistachio shells**, exploring related pathogens and other contributing factors ([p7](#))
- ✓ **Information and data to assist through COVID-19**, including the new *Hort Innovation Insights* podcast (www.horticulture.com.au/webinars) and regular consumer attitude and behaviour information (www.horticulture.com.au/impact-monitor)*
- ✓ **Preparation support for fall armyworm**, including emergency minor use permits and an educational podcast series, www.bit.ly/armyworm-podcast*
- ✓ **The Good Mood Food** across-horticulture marketing campaign to support industries through the effects of recent times (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 2019/20 for more*

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

Making investments in 2019/20

The below diagram shows how Hort Innovation makes strategic levy investments on behalf of horticulture industries. The voluntary pistachio R&D levy was invested this way during the year, guided by the pistachio industry’s investment plan and advice from the industry’s R&D committee.



* Encapsulating extension and international trade

To learn more about funding specific to the Hort Innovation Pistachio Fund, visit www.horticulture.com.au/pistachio. 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 reserves.

R&D project list 2019/20

ONGOING INVESTMENTS IN 2019/20	
PS16000	Understanding and managing insects on pistachio orchards
PS16002	Pathogens and other factors contributing to dark staining on pistachio shells
PS17002	Technology transfer for pistachio growers
PS17003	Pistachio productivity improvement program

INVESTMENTS COMPLETED IN 2019/20	
MT17012	Generation of residue data for permit applications 2017



R&D report

Take a closer look at some of the key investments in the Hort Innovation Pistachio Fund during 2019/20. You can also visit www.horticulture.com.au/pistachio 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.

Understanding and managing insects on pistachio orchards (PS16000)

NOW COMPLETE

Key research provider: Ag Dynamics

From 2017 to 2019, this project increased knowledge about pest and beneficial species of insects and mites in Australian pistachio orchards. It looked at pests that currently pose a risk to pistachio production, or that have the potential to move into orchards.

While the project team found the pest status of surveyed pistachio orchards to be very low (and, in fact, the insects with the highest numbers seen were beneficials), they identified key pests of interest as being Carpophilus beetle, carob moth, light brown apple moth, and small bugs and weevils.

Based on their work, the researchers reported the below as being focus areas for industry:

- » **Maintaining and improving orchard hygiene.** The project highlighted the role good orchard hygiene plays in maintaining low pest pressure, with an area for improvement relating to mummy nuts and their potential to shelter pests over winter. Working together with the Hort Innovation Almond Fund project *An integrated pest management program for the Australian almond industry (AL16009)*, the researchers found the presence of Carpophilus beetle, carob moth and Florida pink scavenger moth in mummies left on the orchard floor. Improving orchard hygiene post-harvest could help mitigate this potential threat and break the cycle of pest development.
- » **Managing native vegetation around orchards.** A wide range of beneficials insects and spiders were found in native vegetation around commercial orchards. While further work is needed to identify the best plant species to incorporate into the orchard system, thinking about beneficials is important.

- » **Considering the pest-predator balance found in each orchard.** While pistachios are a relatively low-input crop, the use of fungicides and weed controls are just two activities that can directly or indirectly impact on the good balance currently found between pests and predators. These activities should be more closely considered as they pertain to integrated pest management in the orchard.

Generation of residue data for permit applications 2017 (MT17012)

NOW COMPLETE

Key research provider: Eurofins

The generation of pesticide residue, efficacy and crop safety data is required to support label registration and minor use permit applications made to the Australian Pesticides and Veterinary Medicines Authority which, when approved, provide access to safe and effective chemicals for the management of pests, weeds and diseases.

Drawing to a close in 2019/20, this multi-industry investment generated pesticide residue and crop safety data to support applications and renewals for a range of permits. For the pistachio industry, its results supported a renewal of the industry's minor use permit for prochloraz, which is used in the control of anthracnose and panicle and shoot blight.

Continued >>



Pathogens and other factors contributing to dark staining on pistachio shells (PS16002)

Key research provider: AgXtra

This ongoing project is delving into dark staining of pistachio shells and nuts – an issue that significantly downgrades the value of the product and that has been tentatively linked to fungal pathogens *Fusarium* and *Alternaria* in preliminary studies.

Its work involves field and laboratory studies to evaluate the occurrence of dark staining and to provide information on causal agents associated with the problem. It is also looking at factors that could influence fungal infection, such as insect damage or environmental conditions.

The project will ultimately develop a monitoring tool for growers, to use in evaluating the risk of fungal disease, and assist in the future development of management strategies.

Pistachio productivity improvement program (PS17003)

Key research provider: Pistachio Growers' Association

Beginning in 2018 and ongoing through 2019/20, this investment supports improvements in the cultivation of pistachios and the uptake of new and changing production practices through research, development and extension activities.

It supports the role and activities of a pistachio researcher who, in conjunction with other research associates, is undertaking field research that builds on the outcomes of previous industry work, which was funded by industry contributions through the then Horticulture Australia Limited.

Goals of the work include:

- » Improving yields, through a better understanding of orchard management issues
- » Benchmarking and reporting on quality and yield information to growers
- » Assisting in disseminating information to growers, and in the adoption of R&D
- » Supporting an increase in pistachio plantings
- » Exploring new development areas for pistachio research
- » Responding to any changing environmental and seasonal issues that may arise.

Technology transfer for pistachio growers (PS17002)

Key research provider: Pistachio Growers' Association

Beginning in 2018, this three-year investment brings the latest in Australian and international research, best practice and technical information to the nation's pistachio growers.

Project activities include, but aren't limited to:

- » Maintaining and expanding the pistachio industry's regional 'Tech Groups'
- » Facilitating field days and farm walks throughout each year in the country's major pistachio growing regions, with involvement of Australian and international experts
- » Compiling technical information from Australia and overseas into resources for growers, including presentations, 'Seasonal Notes' that are distributed quarterly, e-bulletins and more
- » Updating of the industry website with new information (www.pgai.com.au)
- » Workshops for new entrants to the industry.

Due to COVID-19, during 2020 project activities that would normally take place face-to-face were replaced with online alternatives such as Zoom meetings, webinars, YouTube videos and the increased use of email blasts.

Financial statement

Financial operating statement 2019/20

	R&D (\$)	TOTAL (\$)
	2019/20 July – June	2019/20 July – June
OPENING BALANCE	155,038	155,038
Voluntary levies from growers	143,448	143,448
Australian Government money	177,608	177,608
Other income*	1,714	1,714
TOTAL INCOME	322,770	322,770
Project funding	309,587	309,587
Consultation with and advice from growers	–	–
Service delivery – base	13,772	13,772
Service delivery – shared	19,776	19,776
Service delivery – fund specific	10,000	10,000
TOTAL EXPENDITURE	353,135	353,135
Levy contribution to across-industry activity	–	–
CLOSING BALANCE	124,673	124,673

* Interest, royalties



THE GOOD MOOD FOOD

BONUS ACTIVITY: THE GOOD MOOD FOOD

In 2019/20, Hort Innovation created The Good Mood Food campaign to deliver an immediate and enduring behaviour-change message to motivate more Australians to eat more fruit, vegetables and nuts.

With the central message that these Aussie horticulture products are natural mood boosters, the campaign was developed to support the sector through the impacts of recent challenges including bushfires, drought, floods and of course COVID-19 – the effects of which continue to be felt in consumer spending and purchasing behaviour.

Initially running between May and November 2020, The Good Mood Food has been seen across the country on TV; in newspapers; on radio and music streaming services; online (including on YouTube and TV catch-up services); on social media; and via retail partnerships and advertising screens near supermarkets.

In July, 56 per cent of surveyed consumers said The Good Mood Food had positively influenced their shopping habits, and by the end of campaign's run, 98 per cent of all Australians were expected to be reached.

Learn more at www.horticulture.com.au/the-good-mood-food.

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The projects in this report have been funded by Hort Innovation using sources including the pistachio industry's voluntary levy, Australian Government contributions and, in some instances, co-contributions from a variety of sources.

Hort Innovation

Horticulture Innovation Australia Limited
ACN 602 100 149

Level 7, 141 Walker Street
North Sydney NSW 2060 Australia

02 8295 2300 | communications@horticulture.com.au

www.horticulture.com.au