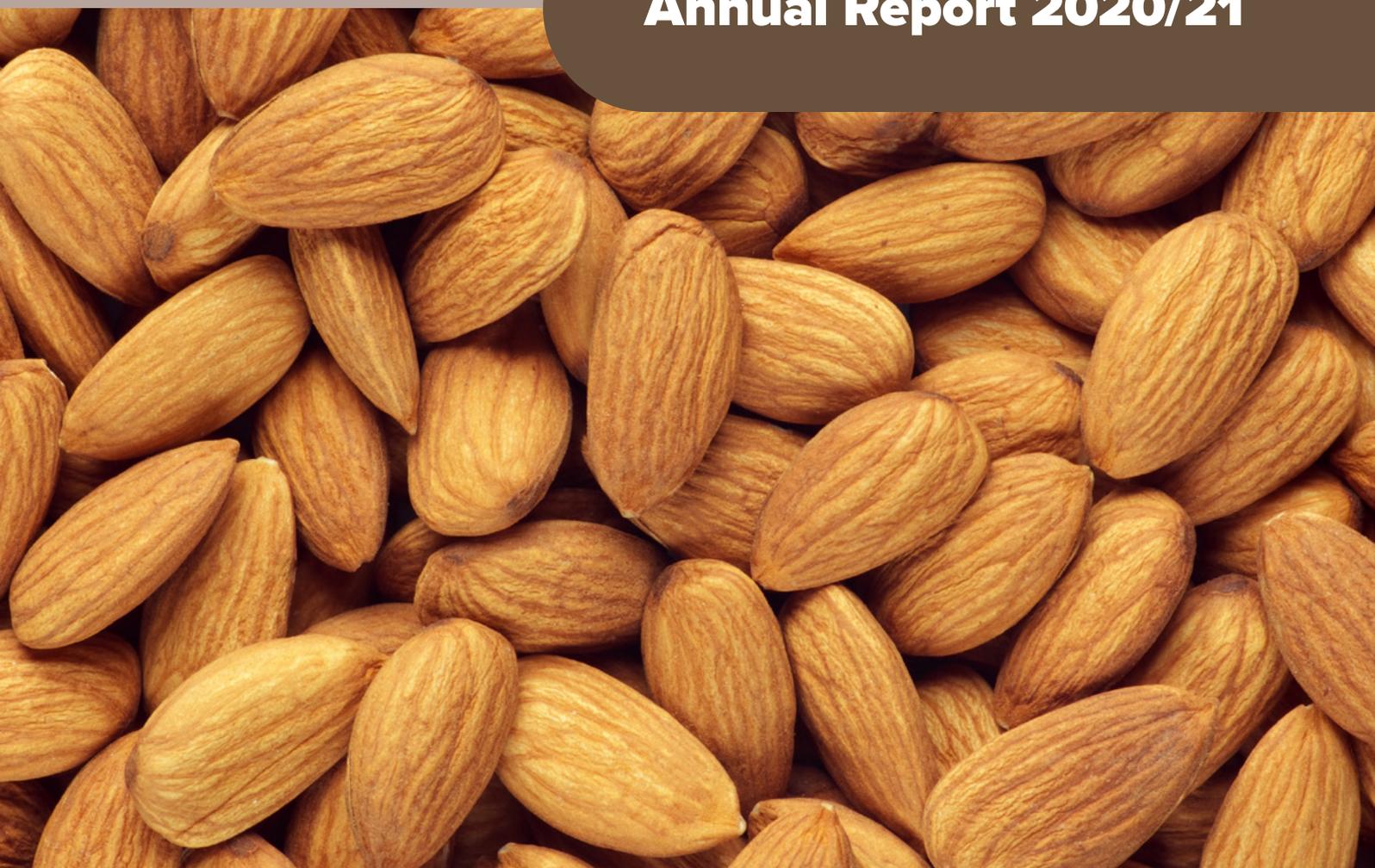


# What happened in the **Almond Fund** last year?

**Annual Report 2020/21**



# About Hort Innovation and the Almond Fund

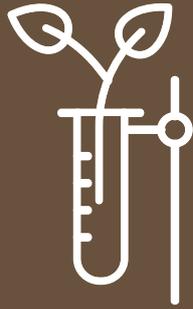
Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australia's horticulture sector. We work closely with industry to invest the statutory and voluntary almond R&D levies, together with Australian Government contributions, into key initiatives for growers, through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

Throughout another challenging year for the horticulture sector, activity in the Almond 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](http://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...

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- Making investments in 2020/21 4**
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**\$4.59M**

invested in R&D



**25**

active R&D investments



**\$3.18M**

in levies collected

by the government and almond collective industry fund  
and passed on to Hort Innovation for investment



**6.2%**

Almond production value grew at an average annual rate of 6.2 per cent over the five years to 2019/20 to reach \$954 million – making almond the second largest horticulture industry by value



**4.4%**

Almond exports have driven recent growth, which have grown at an average annual rate of 4.4 per cent over the last five years



**50%**

Victoria is responsible for around half of Australia's total almond production, followed by New South Wales (24 per cent) and South Australia (21 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 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](http://www.horticulture.com.au/horticulture-statistics-handbook).

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



**Access to self-fertile almond varieties**, developed through the industry's long-running breeding and evaluation program – read more at [hortinn.com/al17005](http://hortinn.com/al17005)



**The 2019/20 Almond Insights publication**, providing an up-to-date assessment of the industry, annual crop forecasting to support strategic planning and more at [www.bit.ly/almond-insights](http://www.bit.ly/almond-insights)



**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



**Industry communication and extension programs**, delivering best practice information, *In a Nutshell*, the industry website, webinars, events and more – see [industry.australianalmonds.com.au](http://industry.australianalmonds.com.au)



**The almond Harvest to Home dashboard** providing regular household purchase data and insight reporting, at [www.harvesttohome.net.au](http://www.harvesttohome.net.au)



**An economic analysis** showed that the almond industry employs more than 9,000 Aussies and contributes \$1 towards every \$1000 of Australia's GDP – find out more at [hortinn.com/al19004](http://hortinn.com/al19004)



**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](http://www.horticulture.com.au/hort-frontiers)\*

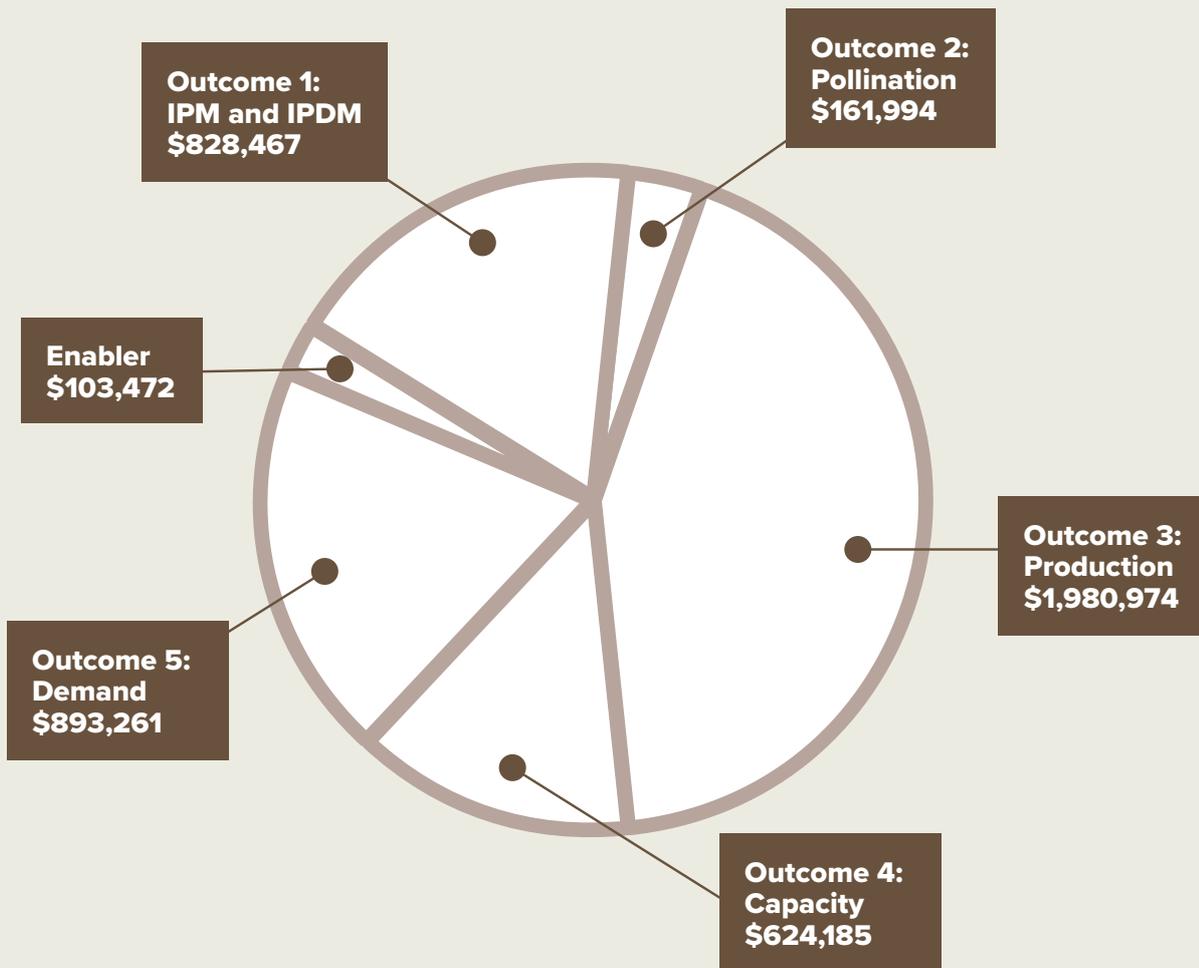


**Projects supported by grants** secured by Hort Innovation, ranging from cross-sector Rural R&D for Profit initiatives to horticulture-specific work to aid in access to crop protection products – see the Hort Innovation Annual Report 2020/21 for more\*

You can visit [www.horticulture.com.au/almond](http://www.horticulture.com.au/almond) 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 Almond 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 Almond Fund are guided by the almond 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 initiatives that are aligned to these.

In the above chart, you can see how project expenditure in the Almond 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: IPM and IPDM

Pest and disease damage to almonds has been reduced through enhanced integrated pest management (IPM) and integrated pest and disease management (IPDM)

Project title and code	2020/21 investment	Status	More information
<b>Almond minor use permit program</b> (AL16002)	\$350	Ongoing	<a href="http://hortinn.com/al16002">hortinn.com/al16002</a>
<b>An integrated disease management program for the Australian almond industry</b> (AL16005)	\$362,826	Ongoing	<a href="http://hortinn.com/al16005">hortinn.com/al16005</a>
<b>An integrated pest management program for the Australian almond industry</b> (AL16009)	\$445,526	Ongoing	<a href="http://hortinn.com/al16009">hortinn.com/al16009</a>
<b>Generation of data for pesticide applications in horticulture crops 2019/20</b> (MT18018)	\$17,765	Ongoing	<a href="http://hortinn.com/mt18018">hortinn.com/mt18018</a>
<b>Strategic Agrichemical Review Process (SARP) – Updates</b> (MT19008)	\$2,000	Completed	<a href="http://hortinn.com/mt19008">hortinn.com/mt19008</a>

## Outcome 2: Pollination

A major productivity gain in almond pollination by 2022 through a 25 per cent reduction in bee stocking rates with no loss in pollination efficiency (nut set)

Project title and code	2020/21 investment	Status	More information
<b>Enhanced National Bee Pest Surveillance Program 2016–2021</b> (MT16005)	\$37,500	Ongoing	<a href="http://hortinn.com/mt16005">hortinn.com/mt16005</a>
<b>Development and implementation of protocols to enable importation of improved honey bee genetics to Australia</b> (MT18019)	\$7,500	Ongoing	<a href="http://hortinn.com/mt18019">hortinn.com/mt18019</a>
<b>Development of non-invasive methods and systems for the assessment of hive health</b> (PH17001)	\$116,994	Ongoing	<a href="http://hortinn.com/ph17001">hortinn.com/ph17001</a>

## Investments

### Outcome 3: Production

An almond industry crop production system that supports further efficiencies in Horizon 1 orchards and the development of Horizon 3 orchards and has lifted average industry yield from 3 to 4 tonnes per hectare

Project title and code	2020/21 investment	Status	More information
<b>Better tree performance and water use efficiency through root system resilience</b> (AL13009)	\$253,996	Completed	<a href="http://hortinn.com/al13009">hortinn.com/al13009</a>
<b>Evaluation of potential prunus rootstocks for almond production – stage 2</b> (AL16006)	\$7,278	Ongoing	<a href="http://hortinn.com/al16006">hortinn.com/al16006</a>
<b>National almond breeding and evaluation program</b> (AL17005)	\$349,473	Ongoing	<a href="http://hortinn.com/al17005">hortinn.com/al17005</a>
<b>Almond Centre of Excellence experimental and demonstration orchard</b> (AL19000)*	\$1,370,227	Ongoing	<a href="http://hortinn.com/al19000">hortinn.com/al19000</a>

### Outcome 4: Capacity

An informed industry that adopts R&D outcomes and has the capacity to support current and future industry needs.

Project title and code	2020/21 investment	Status	More information
<b>Almond industry communications program</b> (AL18001)	\$109,143	Ongoing	<a href="http://hortinn.com/al18001">hortinn.com/al18001</a>
<b>Almond industry innovation and adoption program</b> (AL19001)	\$400,217	Ongoing	<a href="http://hortinn.com/al19001">hortinn.com/al19001</a>
<b>Economic analysis of the almond industry</b> (AL19004)	\$49,097	Completed	<a href="http://hortinn.com/al19004">hortinn.com/al19004</a>
<b>Australian almond industry statistics and data collection 2020-22</b> (AL19005)	\$59,907	Ongoing	<a href="http://hortinn.com/al19005">hortinn.com/al19005</a>
<b>Horticulture trade data</b> (MT19005)	\$5,821	Ongoing	<a href="http://hortinn.com/mt19005">hortinn.com/mt19005</a>

### Outcome 5: Demand

Increased domestic consumption from 16,000 tonnes in 2016 to 27,500 tonnes in 2022. Increased export sales from 64,000 tonnes in 2016 to 110,000 tonnes in 2022. European Union inspections reduced from one in 20 containers to one in 100 containers at destination by 2022.

Project title and code	2020/21 investment	Status	More information
<b>Educating health professionals</b> (AL16007)*	\$330,421	Completed	<a href="http://hortinn.com/al16007">hortinn.com/al16007</a>
<b>Market access, maintenance and development program</b> (AL17008)*	\$237,758	Ongoing	<a href="http://hortinn.com/al17008">hortinn.com/al17008</a>
<b>Market access, maintenance and development program</b> (AL19002)	\$291,915	Ongoing	<a href="http://hortinn.com/al19002">hortinn.com/al19002</a>
<b>Consumer behavioural and retail data for fresh produce</b> (MT17015)	\$33,167	Ongoing	<a href="http://hortinn.com/mt17015-almond">hortinn.com/mt17015-almond</a>

\* These investments were funded through the almond collective industry fund, which supports additional investment into major strategic programs

# Financial operating statement

## Almond Fund (statutory) Financial operating statement 2020/21

	R&D (\$)	Total (\$)
	2020/21 July – June	2020/21 July – June
<b>OPENING BALANCE</b>	<b>(127,998)</b>	<b>(127,998)</b>
Levies from growers (net of collection costs)	2,005,780	2,005,780
Australian Government money	1,569,602	1,569,602
Other income*	6,813	6,813
<b>TOTAL INCOME</b>	<b>3,582,195</b>	<b>3,582,195</b>
Project funding	2,653,947	2,653,947
Consultation with and advice from growers	–	–
Service delivery	421,311	421,311
<b>TOTAL EXPENDITURE</b>	<b>3,075,258</b>	<b>3,075,258</b>
Levy contribution to across-industry activity	–	–
<b>CLOSING BALANCE</b>	<b>378,939</b>	<b>378,939</b>
Levy collection costs	8,875	8,875

\* 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

### Almond Fund (collective) Financial operating statement 2020/21

	R&D (\$)	Total (\$)
	2020/21 July – June	2020/21 July – June
<b>OPENING BALANCE</b>	<b>17,789</b>	<b>17,789</b>
Voluntary levies from growers	1,172,566	1,172,566
Australian Government money	1,123,062	1,123,062
Other income*	–	–
<b>TOTAL INCOME</b>	<b>2,295,628</b>	<b>2,295,628</b>
Project funding	1,938,405	1,938,405
Consultation with and advice from growers	–	–
Service delivery – shared	307,719	307,719
<b>TOTAL EXPENDITURE</b>	<b>2,246,124</b>	<b>2,246,124</b>
Levy contribution to across-industry activity	–	–
<b>CLOSING BALANCE</b>	<b>67,293</b>	<b>67,293</b>

\* 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 Almond Fund's focus over the next five years?



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

The almond 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 almond SIP identifies four outcome areas that will contribute to the productivity and profitability of the almond 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 almond 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 Almond Board of Australia. 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/almond-fund-management](http://www.horticulture.com.au/almond-fund-management) to view both documents and get a full picture of how your levy will be invested over the next five years.**

# Fostering collaborative research to increase yields, improve efficiency and enhance almond quality

**This investment is backing important collaborative research underway at the Almond Centre of Excellence experimental and demonstration orchard – a sixty-hectare facility showcasing best practice and pushing tech boundaries to make significant developments in production systems.**

## The challenge

With the industry having grown six-fold over the past decade, it needs R&D solutions to rapidly improve production and keep Australia at the forefront of the industry worldwide.

## Meet Brendan

“The things we’ve learnt from this project have completely changed the way we operate,” says Brendan Sidhu, CEO of South Australia’s Century Orchards.



*Brendan Sidhu, CEO of Century Orchards, South Australia*

“Before this, we’d experimented with self-fertilising varieties on a small scale. Now we’re planting whole orchards with the new self-fertile varieties. That’s produced great results, including much easier irrigation management, fewer bees, and better economic outcomes for us and other growers”

“I’m really excited about the future of this project. I’m hopeful it’ll help us optimise our water and fertiliser use and help move us closer to automated harvesting and orchard operations. Since day one, it’s really enabled us to push the envelope.”

## The approach

In collaboration with the Almond Board of Australia and the South Australian Government, Hort Innovation is investing in The Centre of Excellence and experimental orchard in SA’s Riverland to demonstrate how new technologies and practices can improve yield, quality, and efficiency. Previously, similar projects had been too small to gather quality data and growers were reluctant to devote space to experimental crops with a potentially low yield. The Centre of Excellence solves these problems, running experiments on a near-commercial scale with some outstanding results.

Continued



### The impact

This project has removed the risk of trying new technologies, techniques, and varieties for growers, allowing them to implement new systems and strains, confident they'll improve yield and efficiency. Since 2015, this project has led to various innovations, improved water efficiency, and allowed research and development to keep pace with the rapid growth of the industry.

“

*“I’m really excited about the future of this project. I’m hopeful it’ll help us optimise our water and fertiliser use and help move us closer to automated harvesting and orchard operations. Since day one, it’s really enabled us to push the envelope.”*

**Brendan Sidhu, CEO of Century Orchards**

For more information, visit [hortinn.com/al19000](https://hortinn.com/al19000)

### Project details

**Almond Centre of Excellence experimental and demonstration orchard (AL19000)**

Key research provider: Almond Board of Australia

Start date: March 2020

Expected end date: October 2023

Estimated value for life of project: \$4,560,937

# Growing the world's appetite for Aussie almonds

**We're backing our growers, giving them the tools they need to increase exports and access new markets.**

## The challenge

Australia is already the world's second largest almond exporter, reaching markets in more than 40 countries. With production surges predicted in coming years, the industry must tap into new and emerging markets, like Thailand and Chile, to continue its rapid growth.



## Meet Brendan

Brendan Sidhu is CEO of Century Orchards – a 700-hectare almond farm in South Australia's Riverland region. He's seen first-hand the growth of the domestic almond market but knows the key to continued growth lies in exports.

"In recent years, the collaborative efforts of the Australian almond industry has driven domestic consumption to more than a kilogram per person per year," says Brendan. "This is equivalent to the success of the US domestic market, which is the largest single almond market in the world. However, the key to the Australian almond industry's sustainable development has been its ability to grow export markets.

"As an industry, we export more than 70 per cent of our production. This percentage is likely to increase further over this coming decade as our industry's production continues to grow significantly.

"The support of these Hort Innovation projects, which help grow the Australian almond export market and access to new markets, are crucial to the underlying sustainability of our industry.

"These projects help Australian almond growers and marketers connect and communicate with our major international customers. While we have had to transition from the physical face-to-face export exhibitions of pre-COVID years, the two Hort Innovation projects have provided the support to develop new digital communication platforms. We have developed and piloted a virtual trade exhibition platform that will continue to evolve over the final year of these projects and provide great benefit to our industry in the years ahead.

"These export projects also provide support for our Almond Board of Australia team to pursue important market access issues such as regulatory affairs in Europe, food standards in India and product quality testing in Japan."

Continued



### The approach

These programs are developing export markets for Australian almonds across the world, building on the strong reputation and recognition of the Australian Almonds brand. With formidable representation at several trade shows, pre-COVID, Australian Almonds had a strong presence at SIAL Paris, ANUGA Cologne, Gulfoods, China Tree Nut Conference, SIAL China, Supermarket Trade Show Japan, Food and Hotel Indonesia and Food Ingredients Asia. The Australian Almonds brand was also represented at trade exhibitions in the emerging markets of Thailand and Chile. However, during the pandemic, the focus switched to digital engagement, ramping up communications with major nut importers, wholesalers and food manufacturers, particularly in the crucial markets of China and India.

### The impact

Despite the difficulties posed by COVID, the industry has gone from strength to strength in 2020/21 and desire for Australian Almonds is at an all-time high.

Market-specific websites for India and Japan were developed, providing a repository of information about the Australian almond industry in local languages, targeting existing and potential new customers. Education programs were also deployed in China, Indonesia, New Zealand and India, with a specific campaign targeting the Indian almond trade during Diwali.

Investment and support from this program helped ensure Australian growers have capitalised on changing trade arrangements and market conditions, increasing exports to India (our second biggest export market) by 38 per cent compared to last year, while Middle East and European markets grew 16 and 17 per cent respectively.

For more information, visit  
[hortinn.com/al17008-and-al19002](https://hortinn.com/al17008-and-al19002)

### Project details

#### Market access, maintenance and development programs (AL17008 and AL19002)

Key research provider: Almond Board of Australia

#### AL17008

Start date: December 2019

Expected end date: July 2022

Estimated value for life of project: \$1,621,847

#### AL19002

Start date: March 2020

Expected end date: May 2022

Estimated value for life of project: \$1,690,406

# Minor use permits

The Hort Innovation Almond 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/almond-minor-use](http://hortinn.com/almond-minor-use).

## Permits in 2020/21

During the 2020/21 financial year, a successful renewal for PER87216 was prepared by Hort Innovation and submitted to the APVMA, facilitated through the *Almond industry minor use program* (AL16002). A further permit renewal, for PER12989 was applied for during the year and granted just outside of the 2020/21 period.

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 almond industry, current as of 23 August 2021.**

Permit ID	Description	Date issued	Expiry date	Permit holder
PER12989 Version 4	Propiconazole / Almonds / Blossom blight and anthracnose	01-Sep-11	31-Aug-26	Hort Innovation
PER13642 Version 2	Chlorpyrifos and Maldison / Tree nuts / Australian plague locust	01-Sep-12	30-Jun-25	Australian Nut Industry Council (ANIC) C/Hort Innovation
PER14866	Carpophilus Catcha Trapping System / Almonds / Carpophilus beetles	29-Mar-15	29-Mar-25	Almond Board of Australia (ABA) C/Hort Innovation
PER87216 Version 2	Bifenthrin (Talstar) / Almonds / Carpophilus beetle or dried fruit beetle	01-Apr-19	28-Feb-26	Hort Innovation
PER89259	Chlorantraniliprole (Coragen, Altacor and Altacor Hort Insecticide) / Almonds / Fall armyworm	06-Mar-20	31-Mar-23	Hort Innovation

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](http://portal.apvma.gov.au/permits). Details of the conditions of use associated with these permits can also be found on the APVMA site.

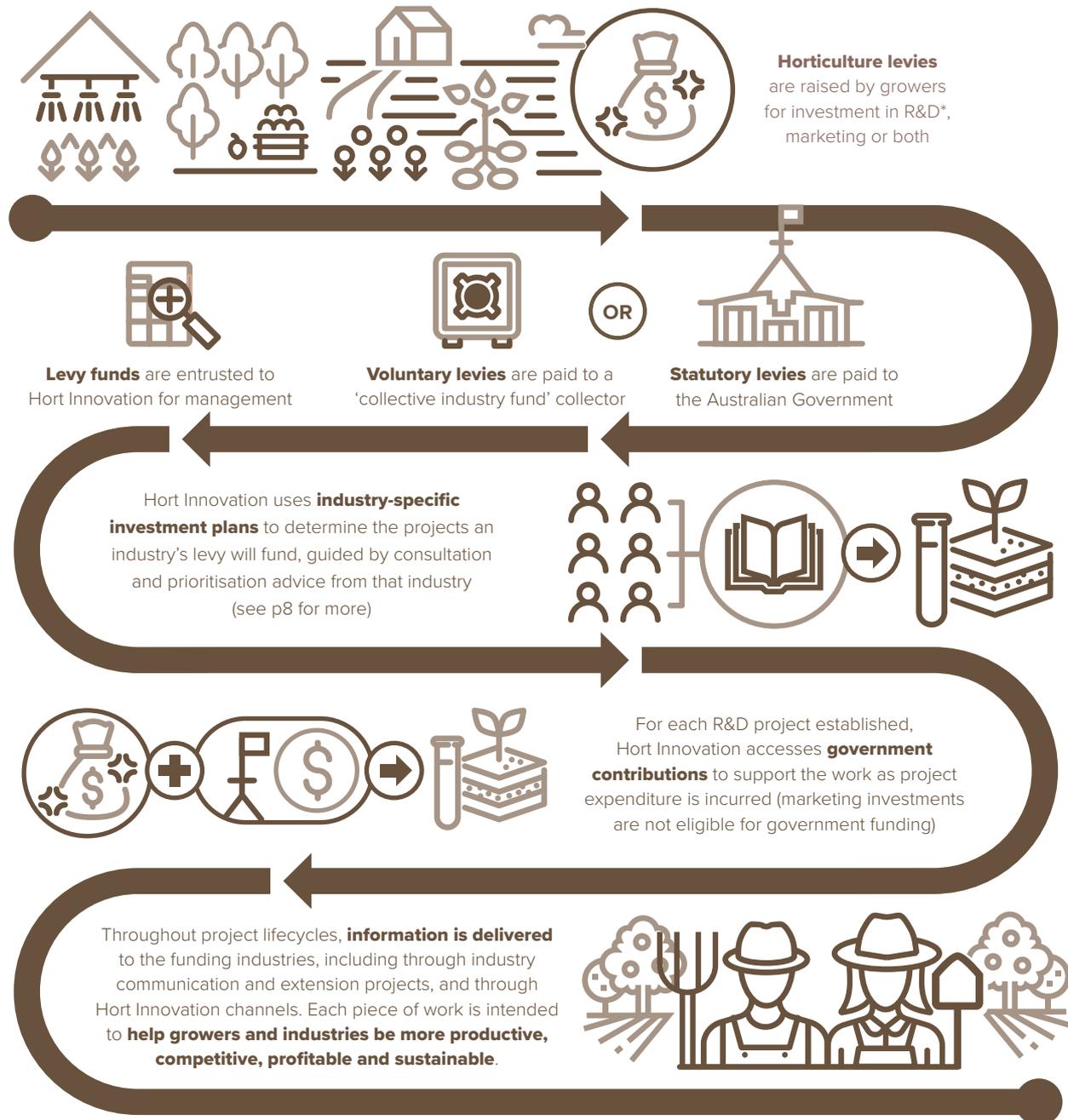
## Keep up to date!

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

Sign up for free at [www.horticulture.com.au/sign-up](http://www.horticulture.com.au/sign-up).

# How strategic levy investments are made in the Almond Fund

The below diagram shows how Hort Innovation makes strategic levy investments on behalf of horticulture industries. The almond statutory and voluntary R&D levies were invested this way during the year, guided by the almond 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 Almond Fund, visit [www.horticulture.com.au/almond](http://www.horticulture.com.au/almond). 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.

# 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](mailto:communications@horticulture.com.au)

[www.horticulture.com.au](http://www.horticulture.com.au)

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