

Avocado Fund

2016/17
Annual Report



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

Summary by
Astrid Hughes,
Relationship Manager,
Hort Innovation

Welcome

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What a year! As the avocado industry's Relationship Manager at Hort Innovation, I'm pleased to be able to share with you all of the insights on your levy in the Avocado Fund Annual Report for 2016/17.

The 2016/17 financial year was a busy one, with Hort Innovation continuing to invest the avocado levy and Australian Government contributions into initiatives to help growers be as productive and profitable as possible.

During the period, more than \$2.86 million was invested into R&D for the avocado industry, including into 18 new projects.

From new research to understand and improve avocado quality throughout the supply chain, to ongoing work to improve yields, and efforts to deliver vital industry data and statistics, you can see the full list of projects for 2016/17 on [page 5](#). You can then read more, including what the projects mean for you, in the R&D report from [page 7](#).

In marketing, Hort Innovation invested close to \$2.5 million during 2016/17 into a marketing program to raise both the profile and consumption of Australian avocados. Activities spanned from traditional TV advertising to digital partnerships, a considered social media approach and a presence at a high-profile family-focused event. Read all about this on [page 12](#).

As the Relationship Manager for the avocado industry, it's my job to form one of the bridges between these strategic levy investments and you – the growers and other avocado stakeholders. That's why it was great getting to talk to you throughout the year about everything going on in the Hort Innovation Avocado Fund – and of course to hear directly from you – at events including Qualicado workshops and study groups, and via phone and email.

During the year there was also a chance for many of us to talk one-on-one as part of consultation around the Avocado Strategic Investment Plan (SIP). The final SIP was released in April 2017, and will serve as a guiding document for the industry's Strategic Investment Advisory Panel (SIAP) when providing advice to Hort Innovation on future investments in the Avocado Fund. Find a quick overview on [page 3](#).

If you have an idea for a project you think aligns well with the SIP, I encourage you to submit it to Hort Innovation through the online form at www.bit.ly/2eTpOxA. You can also learn more about how the collection of ideas works in the video available at www.bit.ly/2hTROUQ.

Here's to another great year of investments and connection in 2017/18,

A handwritten signature in dark ink, appearing to read 'A. Hughes'.

Astrid Hughes
Avocado Relationship Manager, Hort Innovation
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Strategic Investment Advisory Panel

Hort Innovation has industry-specific Strategic Investment Advisory Panels (SIAPs) that have an important role in helping ensure levy investment decisions are balanced and prioritised by the current needs of their industry.

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What is the avocado SIAP?

The avocado SIAP's key function is to provide advice to Hort Innovation on potential levy investments – helping guide the way the industry levy and Australian Government contributions are put to use in the Hort Innovation Avocado Fund.

The SIAP's new guiding document is the industry's Strategic Investment Plan (SIP), which was created through close consultation with industry and was finalised in April 2017. Information on the SIP can be found on [page 3](#), and you can download the full document from Hort Innovation's Avocado Fund page at www.horticulture.com.au/avocado.

How do ideas get to the SIAP?

All growers and industry stakeholders are welcome and encouraged to submit ideas for potential industry projects. To submit an idea, use Hort Innovation's Concept Proposal Form at www.bit.ly/2eTpOxA.



Avocado SIAP panellists

The avocado SIAP is made up of panellists from the avocado industry, plus a chair. Most panellists are levy-paying growers, with appointments made based on skills criteria and considering geographic and sectorial diversity.

NAME	ORGANISATION	LOCATION
Daryl Boardman	Sunnyspot Farms	QLD
Jennie Franceschi	Avocado Export Company	WA
Kylie Collins	Blushing Acres	QLD
Simon Grabbe	Simpson Farms	QLD
Stewart Ipsen	West Pemberton Avocadoes	WA
Xhemal (Jim) Kochi	Tinaroo Falls Avocado Pty Ltd	QLD
Cormac te Kloot	Costa	VIC
Simon Newett	Queensland Department of Agriculture and Fisheries	QLD
John Walsh	Simpson Farms	QLD
Neil Delroy	Jasper Farms	WA
Simon Newett	Queensland Department of Agriculture and Fisheries	QLD
Chair: Peter O'Brien		

SIAP meetings

During 2016/17, the avocado SIAP, convened three times to discuss and provide advice on concept proposals and investment areas for both R&D and marketing. Summary notes from all SIAP meetings, including before and after this financial period, are always available on Hort Innovation's Avocado Fund page at www.horticulture.com.au/avocado.

Strategic Investment Plan 2017-2021

The Strategic Investment Plan will be used to guide Hort Innovation's strategic investment of the industry levy, ensuring investment decisions align with industry priorities. This at-a-glance version provides a top-level overview of the plan.

Potential impact of the plan



Based on an estimated investment of \$31.48 million over the next five years

Major opportunities

- » Increase in supply provides capacity to meet demand in export markets
- » Improve access to existing and new export markets
- » Awareness of/interest in Australian avocados in overseas markets
- » Import displacement to ensure year round consumption of Australian product
- » Health conscious consumers interested in new food experiences
- » Increasing consumer demand for safe, clean food
- » Consumer awareness/expectation of environmentally sustainable production
- » Growing recognition by consumers of the positive health attributes of avocados
- » Smaller size fruit preferred in Asian markets complements domestic market preference for larger fruit
- » Value chain desire for strategic industry engagement
- » Supermarkets seeking security of supply
- » Access to technology providing new avenues for data collection, analysis, information sharing and communications
- » Information and Communications Technology is enabling rapid and global information flows between consumers, community, businesses and governments.

Major challenges

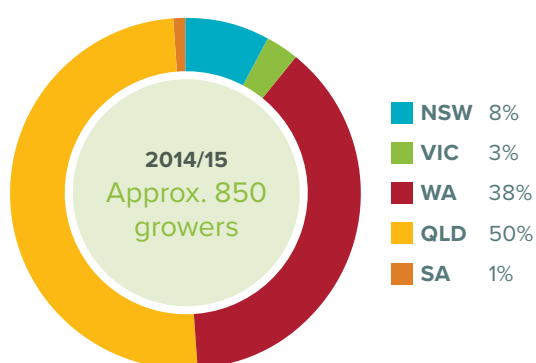
- » Major increases in avocado supply could exceed consumer demand and cause prices to fall
- » Consumer trust in the product erodes with experiences of inconsistent quality
- » Well-resourced overseas competitors, with the ability to compete on the basis of lower price
- » Potential market access for Mexican avocados could impact on Australian price and market share
- » Industry environmental practices (or perceptions of) come under public scrutiny
- » Biosecurity risks to plant health status
- » Limited restrictions on imported processed avocado products
- » Supermarket private labels eroding food supplier brands
- » Rising production places pressure on current infrastructure and cool chain capacity
- » Climate change and variability in growing conditions
- » Irregular bearing is a significant threat to the industry.

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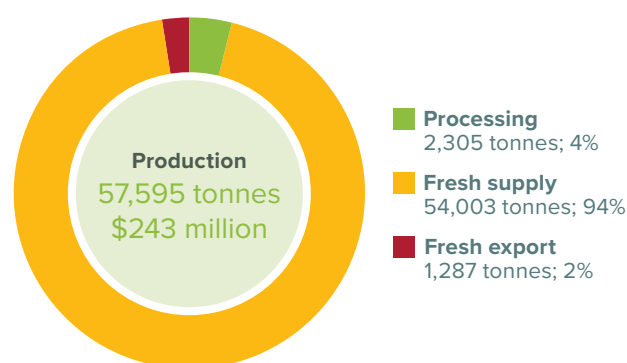
OUTCOMES	STRATEGIES
By 2021, increase domestic demand for Australian avocados has increased by at least 20%	Domestic marketing services that elevates value to consumers for Australian avocados while encouraging them to buy more avocados more often
	Establish strategic relationship management with the major supermarket chains
	Modern production and market information collection, analysis and sharing across value chain
	Improve the reliability and consistency of year round supply of Australian avocados to replace the reliance on imported fruit
	Collect and promote evidence of industry practices that strengthen the reputation of value chain businesses and avocado products

OUTCOMES	STRATEGIES	OUTCOMES	STRATEGIES
By 2021, over 90 per cent of avocados received by consumers will meet or exceed their expectations of quality	Establish objective evidence and understanding of the primary sources of continued quality issues	By 2021, over 10 per cent of production will be exported to markets where customers have a willingness and capacity to pay a premium for Australian avocados	Establish and share baseline and time series information on farm productivity by growing region
	Quantify the levels of quality variability between farms and across value chains to consumers		Promote uptake of established on-farm good practice tailored to variety/region
	Develop targeted programs to implement best practice in those areas identified as being the highest risk/lowest performance		Facilitate access to crop protectants and regulants of high value to growers
By 2021, over 10 per cent of production will be exported to markets where customers have a willingness and capacity to pay a premium for Australian avocados	Collection and sharing of information on performance in the supply of consistent quality avocados at point of sale		Identify and use proven technologies and automation that reduces costs and improves marketable yields
	Develop trade with existing export markets		Review and prioritise the main constraints (e.g. irregular bearing, pest and disease, rootstock selection, nutrition, irrigation management) to increasing farm productivity and address those with the greatest national impact
	Improve the reliability and consistency of year round supply of Australian avocados		Maintain and improve biosecurity
	Gain technical access in high value markets as defined by avocado exporters		
	Coordinate integrated industry response to expand exports into newly accessed high value markets		
	Value chain collaboration for gathering and sharing of market intelligence on existing and new export markets		

Industry size and production distribution



Avocado supply chain and value 2014/15



Any views contained in this abbreviated Strategic Investment Plan (SIP) do not necessarily represent the views of Horticulture Innovation Australia Limited (Hort Innovation) or its commitment to a particular course of action or a guarantee of specific outcomes. The ability to deliver on all the articulated strategies (and investments) will be determined by the ability of the statutory levy to provide the resources to do so. For more information on Hort Innovation's obligations, rights and responsibilities and a full disclaimer statement, refer to the full version of this SIP that is available on Hort Innovation's website at www.horticulture.com.au.

R&D project list 2016/17

NEW INVESTMENTS IN 2016/17

AV15009	Supply chain quality improvement – reducing the incidence of bruising
AV15011	Supply chain quality improvement – retail and consumer education
AV15012	Pest status and management of six-spotted mite (<i>Eotetranychus sexmaculatus</i>) in WA avocado orchards
AV16000	Impact of Mexican avocado imports for the Australian avocado industry
AV16002	Avocado industry minor use program
AV16004	Avocado program review and consumer insights
AV16005	Maximising yield and reducing seasonal variation
AV16006	Avocado industry and market data capture and analysis
AV16011	Avocado industry export review
AV16012	Avocados consumer study - Nielsen
MT16003	Women's leadership forum
MT16005	Enhanced National Bee Pest Surveillance Program 2016–2021
MT16006	Update of the Hi-Link model of Australian horticultural industries
MT16010	Horticultural trade data 2017–2019
MT16011	Horticulture trade intelligence reporting 2017–2019
ST16006	2016 generation of data in horticulture crops
AM16003	Fruit & Vegetable Fair – FVF (Beijing)
AM16004	World of Perishables – WOP (Dubai)

While some of the above projects may have been contracted prior to the financial year, it was during 2016/17 that the citrus levy was first invested in their work.



ONGOING INVESTMENTS IN 2016/17

AV12012	Coordination of data management and avocado quality improvement and extension program
AV14000	Achieving more consistent yields of quality fruit in the Australian avocado industry
AV14012	Investigating tree mortality during early field establishment
AV15000	Avocado health professional education and research program
AV15001	Avocado chef training and education program
AV15002	National avocado industry communications program
AV15010	Supply chain quality improvement – cool chain best practice guidelines
AV09024	Mechanisms of cultivar- and race-based disease resistance in avocado
MT13061	Understanding the purchase behaviour of fresh produce consumers
MT14006	Export-import market intelligence project 2014–2016
MT14052	Essential market access data packages
MT14055	Driving collaboration in Australian horticultural research
MT15029	Trade facilitation
MT15032	Monitoring and evaluation framework for the Industry Strategic Investment Plan
MT15033	Strategic Investment Plan

**FINAL REPORTS ISSUED**

AV13000	RNA silencing based Phytophthora root rot resistant avocado rootstocks – phase 2
AV13003	Australian avocado benchmarking program development rounds II and III
AV15004	Avocado data management and quality innovation extension program
MT12001	SPLAT cue-lure based management of Queensland fruit fly
MT12011	National honey bee pest surveillance program

During the 2016/17 financial year, all Australian levy paying horticulture industries also contributed to across-industry projects addressing issues that affect horticulture as a whole. Visit www.horticulture.com.au/across-horticulture for financial documents and information on this program.

R&D report

Take a closer look at some of the key projects in the Hort Innovation Avocado Fund below. To keep up to date with the latest information on new and ongoing R&D for the industry, keep an eye out for Hort Innovation's quarterly Hortlink publication, with the latest edition always available from www.horticulture.com.au/avocado.

RNA silencing based *Phytophthora* root rot resistant avocado rootstocks – phase 2 (AV16000)

NOW COMPLETE

Key research provider: The University of Queensland

Phytophthora root rot is the most serious and widely distributed disease of avocado worldwide. It's caused by the pathogen *Phytophthora cinnamomi*, which is a primary constraint on avocado productivity in Australia. This project employed a novel strategy that used 'RNA silencing' technology to obtain avocado rootstocks that are tolerant to the disease. It has provided proof of concept for resistant rootstocks of the cultivar Reed in limited growth-cabinet and glasshouse trials. This paves the way for a potential solution to the lack of tolerance to *P. cinnamomi* in commercial avocado rootstocks. Here, the benefits to industry would include a long-term cost effective, environmentally friendly solution to the root rot problem, reducing the usage of chemical control measures and reducing the implementation of various cultural practices.

Avocado health professional education and research program (AV15000)

NOW COMPLETE

Key research provider: Lisa Yates Consultant Dietitian

Finishing just out of the 2016/17 period, this project was responsible for keeping health professionals informed about the health benefits of avocados. Health professionals targeted included dietitians and sport dietitians, fitness professions, exercise physiologists and diabetes educators, with the goal of keeping avocados front of mind and encouraging and supporting the professionals to recommend the fruit to consumers as part of a healthy diet.

Activities of the project included production and updating of hard copy and digital resources, maintenance of the 'health professional' content of the Australian Avocados website (prior to its redesign under the industry communications project), plus production of a dedicated e-newsletter and supply of content for the Avocado Nutrition Twitter account (@avonutrition). The project also supported partnership work with relevant organisations such as the Dietitians Association of Australia, and participation at health-industry events.

Avocado chef training and education program (AV15001)

NOW COMPLETE

Key research provider: Whiteworks

With a final report submitted following the 2016/17 period, this now-completed project continued and streamlined the avocado industry's chef training program, to educate Australian chefs about avocado seasonality, varieties, storage handling and cooking possibilities. The ultimate goal was to keep the fruit positioned as a consistent hero ingredient on menus, and to bolster demand all year round. This iteration of the education program provided practical menu ideas and success stories to chefs, and evolved to tailor its communications to meet different food-style needs of restaurant chefs, four- to five-star hotel chefs, commercial caterers, pub groups, clubs and cookery students.

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Australian avocado benchmarking program development rounds II and III (AV13003)

NOW COMPLETE

Key research provider: Pinnacle Agribusiness

Finishing very early in the 2016/17 financial year, this project was a continuation of earlier industry benchmarking work. Its goal was to further the development of an industry database and benchmarking process to enable growers to identify and strive for Australian best practice in production, packing and marketing of avocados. It involved the collection of data from 82 individual grower businesses over four consecutive financial years, analysis of this data, the provision of confidential individual reports to participating growers, and the distribution of aggregated high-level project findings to the industry at large.

Over the four years the project was active:

- » Participating growers recorded an average yield of 9.23 tonnes per producing hectare per year, declining by five per cent over the project period (median farm size was 10.5 producing hectares)
- » Mid-sized fruit accounted for 49 per cent of fruit sold, and premium grade fruit represented 70 per cent
- » Labour productivity over the period averaged 52 tonnes produced and sold per full-time employee equivalent (FTE) per year, declining by 24 per cent over the study period
- » Prices paid for fresh market avocados increased by 62 per cent per tray equivalent (5.5kg) sold.

The project outputs enabled comparisons between growers based on a combination of location, business size (turnover, volume or tree numbers) and principal varietal type over multiple years – putting growers in a position to identify those areas that impact greatest on their productive and financial performance.

SPLAT cue-lure based management of Queensland fruit fly (MT12001)

NOW COMPLETE

Key research provider: South Australian Research and Development Institute (SARDI)

This project investigated the efficacy of a type of pheromone technology to assist in controlling Queensland fruit fly and to help protect domestic and international fruit markets. Its work has suggested that the 'Specialised Pheromone Lure Application Technology' (SPLAT) approach is as effective as current controls in managing Queensland fruit fly. This form of control has appeal, as it has a reduced-risk insecticide that does not require labour-intensive handling and placement.

Maximising yield and reducing seasonal variation (AV16005)

NEW INVESTMENT

Key research provider: CSIRO

This project will develop the knowledge and tools needed to manipulate and maximise avocado tree yields, to help improve production and profitability in the industry. Specifically, it will:

- » Look at resource competition between shoots and fruits, potentially opening the door for new methods of reducing fruit drop
- » Look at how high sustainable production can be achieved from year to year, through progressing the understanding of high-yielding tree development.





Avocado industry and market data capture and analysis (AV16006)

NEW INVESTMENT

Key research provider: Avocados Australia

This project carries on from now-completed investment *Data management and quality innovation extension program (AV15004)*. Some of the activities the new project is carrying on from AV15004 include:

- » Maintenance of Infocado, the industry's price-monitoring program
- » Maintenance of OrchardInfo, the industry's planting and production program, with annual OrchardInfo Tree Census reports produced
- » Other relevant local data collection, analysis and reporting for the industry, including to identify and understand trends, supply, demand and price relationships
- » Global trade data analysis.

Other activities from original project AV15004, such as maintenance of the industry's Best Practice Resource (BPR) – the online portal that includes training programs and other industry management content – are continued by other new projects, including the *National avocado industry communications program (AV15002)* described further on.

During its course, AV15004 was also responsible for facilitating the adoption of Qualicado, the industry's data management and quality improvement program. This included the running of Qualicado workshops in regional and metropolitan areas throughout the life of the project.

Supply chain quality improvement – technologies and practices to reduce bruising (AV15009)

NEW INVESTMENT

Key research provider: The Queensland Department of Agriculture and Fisheries

Beginning in 2016, this project is tackling the key issue of avocado bruising at the end of the supply chain, at both the retail and household level – where previous research suggests the majority of bruising occurs. The project is:

- » Developing and testing technologies to reduce handling by retailers and consumers, including tools for identifying ripeness
- » Documenting best practice to prevent fruit bruising at the retail level, producing information materials for use in retail education
- » Investigating any relationship between disease and flesh bruising
- » Reviewing and documenting contributing factors to fruit susceptibility to bruising.

With bruising affecting consumer decisions to repurchase, the ultimate goal is to improve consumer and retailer satisfaction, strengthening consumption of and demand for avocados.

This project is part of a broader supply chain quality-improvement program also involving *Supply chain quality improvement – retailer point of purchase improvements (AV15011)* and *Supply chain quality improvement – cool chain best practice guidelines (AV15010)*, described below.

Supply chain quality improvement – retailer point of purchase improvements (AV15011)

NEW INVESTMENT

Key research provider: Applied Horticultural Research

Beginning mid-2016, this project is set to boost the consumer experience with avocados at the retail level by reducing the percentage of damaged fruit available on retail shelves.

Currently, damaged fruit can represent up to 23 per cent of avocados on display. Research suggests this is largely related to bruising due to consumer and retailer mishandling, and to internal rots due to fruit being held in the supply chain for too long. Ripening practices and temperature management in the supply chain also play a role.

As part of a supply chain quality-improvement program that also includes *Supply chain quality improvement – cool chain best practice guidelines (AV15010)* and *Supply chain quality improvement – technologies and practices to reduce bruising (AV15009)*, this project is working towards reducing fruit damage to no more than 10 per cent. It will work closely with retailer representatives to find solutions and deliver education and training programs and tools.

Pest status and management of six-spotted mite (*Eotetranychus sexmaculatus*) in WA avocado orchards (AV15012)

NEW INVESTMENT

Key research provider: Department of Agriculture and Food, Western Australia

Established during 2016, this project is investigating the six-spotted mite, an exotic insect pest that occurs in avocado orchards in the lower south-west of Western Australia.

Six-spotted mite can cause avocado trees to shed leaves, predisposing fruit to sunburn and affecting tree vigour and subsequent fruit production.

The project is clarifying the pest status of the mite in avocado orchards and investigating its management, including clarifying the role of mite predators and, potentially, miticides. It will ultimately develop guidelines for growers to protect their crops, monitor their orchards and take action.

Avocado minor use program (AV16002)

NEW INVESTMENT

Key research provider: Hort Innovation

Through this project, levy funds and Australian Government contributions are used to renew and apply for new minor use permits for the avocado industry. These submissions are prepared and submitted to the Australian Pesticides and Veterinary Medicines Authority (APVMA).

Find a list of minor use permits for the industry on [page 15](#), current as of September 15, 2017.

All current minor use permits for the industry are searchable at portal.apvma.gov.au/permits. Permit updates are also circulated in Hort Innovation's *Growing Innovation* e-newsletter, which levy-paying members receive monthly. Not a member? Sign up to our membership program for free at www.horticulture.com.au/membership.

The minor use program is also aided by work that generates the data needed to support a range of permit applications for a range of industries. This data-generation research uses grant funds from the Australian Government's Agvet program, plus some levy contributions.

Enhanced National Bee Pest Surveillance Program (MT16005)

NEW INVESTMENT

Key research provider: Plant Health Australia

This project is delivering a nationally coordinated bee-pest surveillance program to help safeguard honey-bee and pollinator-dependent industries in Australia. It builds upon the previous ***National Bee Pest Surveillance Program (MT12011)***, and includes upgrading sentinel hive arrays, strengthening relationships with surveillance operators, the introduction of new elements such as Asian hornet screening and more. The surveillance will enable the early detection of high-priority pest incursions that can impact on honey bees, providing the best opportunity for successful pest eradication. The avocado industry is one of several contributors to the project's work.

Horticulture trade intelligence reporting 2017-2019 (MT16011)

NEW INVESTMENT

Key research provider: Euromonitor International

This project is responsible for providing easy-to-read and easy-to-act-upon trade performance information to Australia's horticulture industry. Quarterly avocado reports will be made available for download through the 'Resources and downloads' section of Hort Innovation's Avocado Fund page at www.horticulture.com.au/avocado. The first report was released just outside the 2016/17 financial year in July 2017.

Hort Frontiers projects AM16003 and AM16004

NEW INVESTMENTS

Hort Frontiers is Hort Innovation's strategic partnership initiative, formerly known as 'Pool 2'. It is responsible for developing collaborative cross-industry projects that endeavour to solve major and often complex challenges crucial to securing the future of Australian horticulture. Hort Frontiers projects are funded via a combination of Australian Government funding and co-investments brokered and managed by Hort Innovation. Co-investors range from research institutes to commercial partners, and can also include individual levy industries. Read more at www.horticulture.com.au/hort-frontiers.

During 2016/17, the avocado levy was co-invested in two projects within the Hort Frontiers Asian Markets Fund. These projects supported the Australian horticulture industry's attendance, via the Australia Fresh pavilion, at leading fresh produce trade shows around the world. The events provided an opportunity for growers and exporters to showcase Australian produce to key decision-makers from food service businesses that supply Asia and the Middle East. The projects included:

- » ***Fruit and Vegetable Fair – FVF (Beijing) (AM16003)***
- » ***World of Perishables – WOP (Dubai) (AM16004)***



Supply chain quality improvement – cool chain best practice guidelines (AV15010)

Key research provider: Applied Horticultural Research

This project rounds out the supply-chain quality improvement program that also involves projects *Supply chain quality improvement – technologies and practices to reduce bruising* (AV15009) and *Supply chain quality improvement – retailer point of purchase improvements* (AV15011), described earlier. Project AV15010's activities are designed to:

- » Increase the adoption of best-practice in cool-chain management and post-harvest handling across all sectors of the avocado supply chain, from orchard to retail
- » Help reduce the incidence of rots and other quality defects in avocados
- » Increase the awareness of factors that predispose fruit to quality defects across the supply chain.

Investigating tree mortality during early field establishment (AV14012)

Key research provider: The University of Queensland

Beginning in 2015, this project is looking into fungal root-rot caused by species of the *Nectriaceae* family, which infect and cause destruction of roots of plants in the nursery. It is increasing the industry's understanding of diseases causing tree deaths after out-planting, and providing practical management procedures for nurseries and growers to improve tree establishment and health in avocado orchards.

One of the project's areas of research has been the evaluation of cover cropping and/or mulching with biofumigant species within the brassica family – an avenue not previously investigated in avocado production systems.

National avocado industry communications program (AV15002)

Key research provider: Avocados Australia

Strong communication initiatives are essential to ensure the Australian avocado industry remains up-to-date with the latest R&D, emerging information, trends and issues both in Australia and overseas. By providing a consistent flow of relevant information, this ongoing project aims to keep growers and other industry stakeholders in a position to make informed business decisions and best-practices changes, and to support industry competitiveness.

A number of communication channels continue to be produced and maintained by the project, including but not limited to:

- » The industry's quarterly *Talking Avocados* magazine, which is distributed in hard copy and uploaded to the Avocados Australia website
- » Fortnightly e-newsletter *Guacamole*
- » The Avocados Australia website, including maintenance of and addition of new modules to the industry's Best Practice Resource (BPR), the online portal that includes training programs and other industry management content
- » Grower Update/industry notice e-alerts, as needed
- » Industry social media channels
- » Media relations, where required.

Achieving more consistent yields of quality fruit in the Australian avocado industry (AV14000)

Key research provider: The Queensland Department of Agriculture and Fisheries

This ongoing project is responsible for providing growers with the knowledge required to implement practices for more consistent high yields of good-quality avocados from year to year. It has a strong focus on delivering workshop and resources to growers. It includes:

- » Facilitation of regional study group workshops
- » *Avo Alert* emails – monthly reminders sent to all growers, specific to each major production region, designed to prompt growers about the orchard activities that should be considered in that particular month and the month ahead
- » Video resources
- » Production of content for other channels, such as articles for the *Talking Avocados*.

Full details of all completed research can be found in project final reports, which are available to order at www.horticulture.com.au/final-report-order-form (final reports are free to Australian horticulture levy payers, registered Hort Innovation members and industry representative bodies).

Marketing report

Hort Innovation is responsible for investing the avocado marketing levy into a range of activities to drive awareness and consumption of the fruit, under the Hort Innovation Avocado Fund. The 2016/17 program was packed full of activity, from television and digital advertising campaigns to a strong social media presence and more.

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Television campaign

From mid-September to mid-October 2016, a month-long national avocado television promotion was run. Strategically positioned during a time when television networks were running some of the year's strongest programming, and when fruit from WA was available on the market, the avocado industry's television commercial was screened during top-performing shows including *The Bachelorette*, *X Factor* and *The Block*. The latter consistently rated as the number-one program of the night for the avocado campaign's main demographic (grocery-buying women aged 25 to 49), attracting a nightly audience of around 150,000 each episode. The industry's advertising regularly appeared during the show, with at least one spot in every metro and regional market.

The commercial also ran during the first episode of popular documentary *The Case of JonBenet Ramsey*, which attracted a total audience of 1,282,000 people, and had regular appearances in reliable programming including *Nine News*, *A Current Affair* and *60 Minutes*, as well as appearing across relevant food-based programming across the SBS Food Network.

Digital video campaigns

At the same time as the television activity, and into mid-November 2016, 15- and 30-second versions of the industry's TV commercial were deployed across various websites targeting women, parents and those seeking healthy lifestyle options. The ads also ran before and during videos on television catch-up services such as TEN Play and 9Now.

In a similar vein, the marketing program took advantage of Tubemogul, which delivers content via connected televisions that allow users to access digital content. Between mid-September and early November 2016, the industry's commercial was run ahead of content selected for viewing by users, with 1,174,000 avocado video views with a 'completion rate' (the number of people completing watching the ad) of 75 per cent, compared to the industry standard of 70 per cent.

A second digital video campaign, running across websites including news.com.au and catch-up services including TEN Play, ran for 13 weeks from March 2017. It reached a significant audience of more than 1.117 million people during its course.

Mobile advertising

From mid-March to mid-June 2017, mobile phone ads proved a successful component of the industry's marketing activity. This involved the placement of 'Love Avocado' ads on mobile devices, targeted to people who were viewing or searching for avocado-specific and avocado-related content online (for example, 'healthy lunch ideas') who were also in the industry's current target market – main grocery buyers, aged between 25 and 49 – with a proven interest in food, health, lifestyle and similar topics. More than one million people were reached over this campaign.

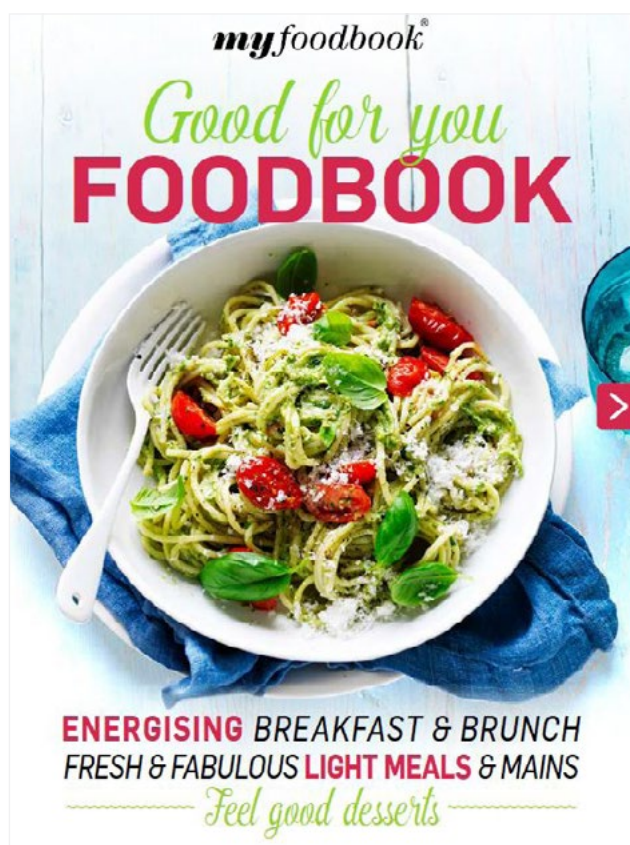
A similar burst of mobile activity occurred earlier in the financial year, with GumGum – mobile-specific technology that used image recognition to deliver Australian Avocado banner ads when consumers were looking at anything to do with the fruit (recipes, news pieces etc). This activity was aligned with the television advertising campaign, delivering the avocado ad 918,080 times, with 11,249 clicks through to the Australian Avocados website.

Digital partnerships

Throughout 2016/17, there were partnerships with a range of digital outlets.

- » **Buzzfeed.** Activity with popular online media site BuzzFeed ran for two months and finished in June 2017. Targeted to female grocery buyers aged 25 to 54, it saw the creation of two avocado-themed articles posted to educate and inspire readers. Combined, the articles received a total of 90,874 views. Indicating just how engaging and the content was, over 5500 of these views were the result of people being inspired to share the content on their own social media accounts.





In addition, there was an animated reel based on one of the articles that was shared on the BuzzFeed Australia Facebook Page. This video was viewed by nearly 100,000 people, and resulted in 14,623 clicks to the Australian Avocados consumer website.

In total, the industry partnership with BuzzFeed resulted in over 168,000 views to Australian Avocado content.

- » **MyFoodBook.** This is a recipe and cookbook community that includes more than 200,000 subscribers, and promotes recipes to more than 2.8 million people each month. Among the activity with MyFoodBook, Australian avocados were positioned in their healthy, versatile and tasty ingredient role through the *Good For You Foodbook*. This digital recipe book proved very popular, achieving 3500 downloads in just its first three days of availability.
- » **TotallyHer.** Used from September 19 to December 21, 2016, TotallyHer offered a three-pronged approach to amplify the avocado marketing messages: editorial and native content across the media organisation's network of digital channels; standard display ads; and influencer-based social media content. Four recipes were featured across the TotallyHer network demonstrating the versatility and diversity of cooking with avocados. These included 'Cheesy Avocado Quesadillas', 'Mexican Avocado Salsa Boats', 'Avocado Pound Cake' and 'Avocado Picnic Tart'.

Industry website and social media

During 2016/17, the 'always on' approach to Australian Avocados social media continued across both the consumer-facing Facebook page (www.facebook.com/AustralianAvocados) and Instagram account (@AustralianAvocados) with fans continuing to be engaged with and inspired by avocado content. The accounts featured fun facts, recipe ideas, tips, videos and lifestyle imagery, all helping drive interest, conversations and, ultimately, consumption.

During the period, the Australian Avocados consumer website (www.australianavocados.com.au) also continued to feature recipe collections, how-to tips, health and nutrition advice and more.

Showing the benefits of the always on approach, in October 2016 a campaign was able to be quickly launched in response to, and to capitalise on, the public debate that ensued after social commentator Bernard Salt brought smashed avocado on toast into the spotlight in an opinion piece for *The Australian*. Prompting much debate, he wrote at the time: "I have seen young people order smashed avocado with crumbled feta on five-grain toasted bread at \$22 a pop and more. I can afford to eat this for lunch because I am middle-aged and have raised my family. But how can young people afford to eat like this? Shouldn't they be economising by eating at home? How often are they eating out? Twenty-two dollars several times a week could go towards a deposit on a house."

This topic maintained its presence in the community dialogue for more than 10 days after the article, with Australian Avocados making sure avocados remained a part of that conversation with the #MakeBrunchNotWar campaign in the industry's social channel, on the website, and through search ads. Close to 435,000 people saw the campaign content, with just under 6000 link clicks and more than 7300 total engagements (likes, comments, shares, retweets, etc).

The Sydney Royal Easter Show

Running from April 6 to 19, 2017, the Sydney Royal Easter Show was attended by over 922,000 people – giving Australian Avocados a huge audience for advertising at the event. This activity involved a combination of television commercial and static ads shown on the big screen in the main stadium, banner boards in the stadium, and ads on 52 plasma screens around the show grounds.

On the big screen alone, 55 spots played the Australian Avocados television commercial over the duration of the show (with 27 of these spots being 'bonus' above what was paid for), as well as 336 static spots. Another 378 spots were on the banner boards in the main stadium, with 55 spots on the plasma screens – all well above what was contracted.



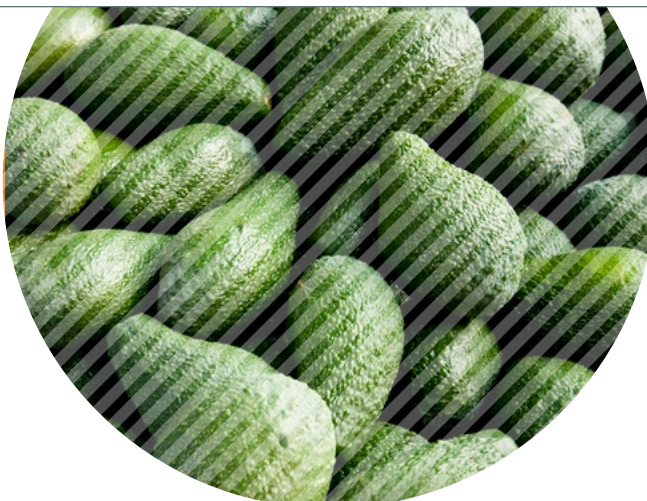
Financial summary

Financial operating statement 2016/17

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	R&D (\$)	MARKETING (\$)	TOTAL (\$)
	2016/17 July – June	2016/17 July – June	2016/17 July – June
OPENING BALANCE	959,511	1,431,202	2,390,713
Grower levies (net of collection costs)	2,237,569	3,316,089	5,553,658
Australian Government money	1,688,664	–	1,688,664
Other income*	32,619	33,777	66,396
TOTAL	3,958,852	3,349,866	7,308,718
Project investments	2,864,547	2,498,267	5,362,813
Grower consultation and advice	70,701	20,780	91,481
Service delivery – fund-specific	47,607	33,451	81,058
Service delivery – base	394,474	331,825	726,298
SUB-TOTAL (LEVY + AUSTRALIAN GOVERNMENT CONTRIBUTION)	3,377,328	2,884,322	6,261,650
Levy contribution to across-industry activity	75,326	–	75,326
CLOSING BALANCE	1,465,708	1,896,746	3,362,455
Levy collection costs	28,339	42,508	70,846

* Interest, royalties



Minor use permits

Pesticides are a valuable tool for the avocado industry. While the use of pesticides is being modified through the increasing uptake of integrated pest management, there is still a need for the strategic use of specific chemicals.

Pesticide companies submit use patterns for registration to the Australian Pesticides and Veterinary Medicines Authority (APVMA) and the avocado industry is generally provided with significant registrations because of its major crop status. However, minor use permits are required in the avocado industry where the market size is considered too small to generate adequate commercial returns for the research and development investment by the pesticide companies.

Below is a list of minor use permits for the avocado industry, as of September 15, 2017.

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Permit ID	Permit description (pesticide/crop/pest)	Date issued	Expiry date	Permit holder
PER12450 v6	Trichlorfon / Specified fruit crops / Fruit fly	06-Oct-11	31-Jan-21	Growcom
PER14813 v2	Phosphorous acid / Avocados / Phytophthora root rot	18-Sep-14	30-Sep-19	Liquid Fertiliser Pty Ltd
PER13158 v8*	Dimethoate / Specified citrus, tropical fruit commodities and hot chilli peppers (post-harvest) / Various fruit fly species	06-Oct-11	05-Oct-17	Growcom
PER14597	Methomyl (Lannate L) / Avocado / Ectropis looper <i>NSW and QLD only</i>	1-Apr-14	31-Mar-19	Avocados Australia (AAL)
PER14618*	Abamectin / Avocado / Tea red spider mite	9-Feb-15	30-Apr-20	AAL
PER13859	Dimethoate / Orchard clean-up – fruit fly host crops following harvest / Fruit fly	9-Feb-15	31-Jul-24	Growcom
PER81560	Chlorantraniliprole (Dupont Altacor Hort Insecticide) / Avocado / Lepidopteran pests including Ectropis looper and avocado leaf roller	13-May-16	30-Apr-21	AAL

* During the 2016/17 financial year, renewals or additional data for these flagged permits were prepared by Hort Innovation and submitted to the APVMA.

All efforts have been made to provide the most current, complete and accurate information on these permits, however it's recommended that you 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.

Minor use permit updates are circulated in Hort Innovation's e-newsletter, *Growing Innovation*, which levy-paying members receive monthly. Not a member? Sign up for free at www.horticulture.com.au/membership.



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