

Custard Apple Fund

2017/18
ANNUAL REPORT



Content

Welcome	1
Making levy investments	2
R&D project list 2017/18	3
R&D report	4
Minor use permits	6
Marketing report	8
Financial statement	11

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



SUMMARY BY
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We're for growers

At Hort Innovation it's our job to work with industry to invest the custard apple levy and Australian Government contributions into initiatives to help growers be as productive and profitable as possible – and 2017/18 was another fantastic year of growing better, together.

With **more than \$154,000 invested by Hort Innovation into R&D for the custard apple industry during 2017/18**, I'm happy to be able to share with you all the key insights in this Hort Innovation Custard Apple Fund Annual Report.

You'll find a top-level list of all R&D investments from the year on **p3**, and can explore the research projects in more detail from **p4**. Just some of the highlights include the work to deliver new and improved custard varieties to bolster industry productivity, plus chemical access work for the management of pests and diseases.

Meanwhile **in marketing, the Custard Apple Fund program saw more than \$18,000 invested during the year to raise the profile and consumption of Australian custard apples**. Find an overview of this activity from **p8**.

On a personal note, thank you for welcoming me as your new Relationship Manager at the tail-end of the financial year. Both I and your previous contact, Astrid Hughes, enjoyed getting to connect with you about everything going on in the Custard Apple Fund, to hear your thoughts, and to share ideas. During 2018/19 I'm looking forward to even more opportunities to connect in person, and I remind you that you can reach me any time at **christian.patterson@horticulture.com.au** or on 0433 896 753 if there's something you'd like to ask or discuss around levy investments.

I also encourage you to explore the easy ways you can stay close to all of the good things your levy is achieving throughout the year...

- » **Become a member.** Paying a levy doesn't automatically make you a Hort Innovation member, but signing up is free at **www.horticulture.com.au/membership**. As well as providing the opportunity for voting rights at the organisation's Annual General Meeting, Hort Innovation membership includes exclusive email alerts with industry-specific news and opportunities, direct invitations to explore investment updates and more.
- » **Check out *Hortlink*.** This digital publication provides an update on all new, ongoing and recently completed investments in the Hort Innovation Custard Apple Fund. The latest edition is always available from the Custard Apple Fund page at **www.horticulture.com.au/custard-apple**, while members have *Hortlink* sent straight to their inboxes.
- » **Engage with your industry communications program.** The *Custard apple communication and extension program* (CU16001) is dedicated to bringing the latest information and advice to growers, including news, outcomes and resources related to levy investments (look for the Hort Innovation Custard Apple Fund logo to easily identify work related to your levy in print and email communications). The program is funded through the Hort Innovation Custard Apple Fund and delivered by Custard Apples Australia, with more info available on **p5**.

Here's to another great year of investments and connection in 2018/19,

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Making levy investments

Discover how the custard apple levy and Australian Government contributions are invested through the Hort Innovation Custard Apple Fund in this quick recap.

Where do investment ideas come from?

Great investments start with great ideas, and Hort Innovation encourages all growers and other industry participants to share their thoughts and suggestions for the research and marketing initiatives they want to see.

Ideas can be submitted any time via Hort Innovation's simple Concept Proposal Form. Visit www.horticulture.com.au/innovation-concept-pipeline.

Ideas can be for your specific industry – to be funded by the industry levy and, in the case of R&D, Australian Government contributions – or they can be for Hort Innovation's strategic partnership initiative, Hort Frontiers. Hort Frontiers projects address broader, longer-term and more complex issues facing Australian horticulture as a whole, and are funded through partnerships with co-investors. Visit www.hortfrontiers.com.au for more.

How are levy decisions made?

Let's talk 'SIPs' and 'SIAPs'!

Investments specific to the Hort Innovation Custard Apple Fund are guided by the industry's Strategic Investment Plan (SIP), which was finalised by Hort Innovation in April 2017 after close consultation with growers and other industry stakeholders.

The SIP outlines key industry priorities for investment and can be found on the Custard Apple Fund page at www.horticulture.com.au/custard-apple.

The SIP document is used like a 'roadmap' by the custard apple Strategic Investment Advisory Panel (SIAP) – a panel made up of growers and other industry representatives, which has a key role to play in the investment process. The SIAP discusses investment ideas at consultation meetings, with the SIP guiding them, in order to provide advice to Hort Innovation on potential levy investments.

Details of the SIAP panellists and summaries of the SIAP's meetings can be found at www.horticulture.com.au/custard-apple.

What happens next?

The SIAP's advice is used by Hort Innovation to work suitable ideas into project proposals. The proposals are then made public for potential delivery partners to submit responses. Current opportunities are always listed at www.horticulture.com.au/delivery-partners.

At the end of the process the responses are assessed, often with the assistance of industry, and the best delivery partner for the work is chosen. A contract is then issued and the work begins.

How can I keep track of investments?

Newly contracted projects are announced in Hort Innovation's *Hortlink* publication, with the latest edition emailed directly to members three times a year and always available from the Custard Apple Fund page at www.horticulture.com.au/custard-apple. *Hortlink* also provides updates on ongoing and recently completed investments.

The industry communications program, run through the investment *Custard apple communication and extension program* (CU16001), also provides regular information on levy-funded activity. See **p5** for more.



R&D project list 2017/18

NEW INVESTMENTS IN 2017/18

CU16002	New custard apple varieties and enhanced industry productivity
MT17012	Generation of data for permit pesticide applications in horticulture crops
ST16008	AgVet collaborative forum
ST17000	Generation of data for pesticide applications in horticulture crops 2018

ONGOING INVESTMENTS IN 2017/18

CU15000	Custard Apple Dispatch System 2 (CADS 2)
CU16000	Custard apple industry minor use program
CU16001	Custard apple communication and extension program
ST16006	Generation of residue, efficacy and crop safety data for pesticide applications in horticulture crops

INVESTMENTS COMPLETED IN 2017/18

CU13001	Accelerating development of the Australian custard apple industry, new variety development and commercialisation phase 2
MT15032	Monitoring and evaluation framework for the industry Strategic Investment Plan
MT15033	Strategic Investment Plan



During the 2017/18 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 investments in the Hort Innovation Custard Apple Fund during 2017/18. Any resources from these and other levy-funded projects – such as fact sheets, guides and more – are published on your grower page at www.horticulture.com.au/custard-apple as they become available.

Accelerating development of the Australian custard apple industry, new variety development and commercialisation phase 2 (CU13001)

NOW COMPLETE

Key research provider: The Queensland Department of Agriculture and Fisheries

Running from mid-2014 till late 2017, this investment aimed to accelerate the development of the Australian custard apple industry by providing better varieties and rootstocks, better crop management techniques and extension of technologies to new and existing growers.

Regarding new varieties and rootstocks...

- » With green-skin custard apple varieties developed in a previous phase of the project, in this phase there was a key focus on breeding and commercialisation of red-skinned varieties with low seed number, good fruit set and good flavour.
- » Some 3000 seedlings with red- and green-skinned parents were assessed during the project, with new selections progressing to grower testing sites. Two red-skin selections advanced to the small-scale grower testing phase (selections 649-1 and 591), and the research team reported that initial feedback from both growers and marketers in relation to 649-1 was “extremely positive”. Two green-skin selections also advanced to large-scale testing.
- » The project progressed the use of genetic techniques for selecting and breeding varieties based on skin colour and fruit set.
- » Clonal variety and rootstock trials were established during the course of the project, using elite selections from the breeding program.

Regarding crop management...

- » The project was responsible for staying on top of new emerging pests and diseases for the Australian custard apple industry, with three pests and two diseases added to the industry’s integrated pest and disease manual as a result, including the common auger beetle (*Xylopsocus gibbicollis*), tree root weevil (*Leptopius robustus*) and branch dieback disease (caused by *Lasiodiplodia*). The information added to the manual included identification, monitoring and control options.
- » Chemical efficacy trials were completed, evaluating insecticide application for the control of mealybug and fungicide application for the control of purple blotch. Information was incorporated into the integrated pest and disease manual.

Regarding extension, the project completed a series of grower field days, regional tours, individual farm visits and resources including manuals and videos. Regular updates were also provided in *The Custard Apple* newsletter, including the “What to do over the next three months” series of articles.

New custard apple varieties and enhanced industry productivity (CU16002)

NEW IN 2017/18

Key research provider: The Queensland Department of Agriculture and Fisheries

Beginning in January 2018, this investment carries on from the completed project *Accelerating development of the Australian custard apple industry, new variety development and commercialisation phase 2* (CU13001), described above.

Like its predecessor, it is continuing the development and evaluation of new, high-yielding green-skinned and red-skinned custard apple varieties; evaluating the performance of clonal and seedling rootstock selections; and delivering information and skills relating to crop management and production issues to Australia’s custard apple growers.

Want to keep up to date with the latest information on new, ongoing and recently completed R&D investments throughout the year? Check out Hort Innovation’s **Hortlink** publication – the latest edition is always available from your grower page, www.horticulture.com.au/custard-apple.



Custard apple communication and extension program (CU16001)

Key research provider: Custard Apples Australia

This ongoing program supports industry awareness and uptake of R&D outcomes and other relevant knowledge. This is primarily delivered through field days/roadshows in each of the country's growing regions. These events bring to growers information on fruit quality, orchard management and post-harvest systems and practices; support growers in adding value to their businesses; and keep all stakeholders up to date with the latest issues relevant to the custard apple industry.

The project also facilitates other regular communication channels to Australia's custard apple industry, including...

- » Quarterly newsletter *The Custard Apple*, available in print and digital form
- » Regular email updates from Custard Apples Australia
- » The industry website, www.industry.custardapple.com.au.

Custard Apple Dispatch System 2 – CADS 2 (CU15000)

Key research provider: GFAP Pty Ltd

The Custard Apple Dispatch System (CADS) allows registered growers to generate and transmit dispatch advices electronically, and wholesalers and exporters to enter and transmit payback prices electronically. It also allows for reporting at grower and industry levels. The CADS 2 project, which began in 2016, is responsible for upgrading the system and continuing its administration. The CADS is accessible via www.freshproducelink.com.au with an allocated username and password.

Generation of data for pesticide applications in horticulture crops 2018 (ST17000), Generation of residue data for permit applications 2017 (MT17012) and Generation of residue, efficacy and crop safety data for pesticide applications in horticulture crops 2017 (ST16006)

NEW IN 2017/18 (ST17000 & MT17012)

Key research providers: Peracto and Eurofins Agrisearch

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. These investments are responsible for producing the data required to support a range of these registration and permit applications across a host of horticulture industries, including custard apple.

Custard apple industry minor use program (CU16000)

Key research provider: Hort Innovation

Through this project, levy funds and Australian Government contributions are used to submit renewals and applications for new minor use permits for the custard apple industry, as required. These submissions are prepared and submitted to the Australian Pesticides and Veterinary Medicines Authority.

For more on minor use permits, including a list of permits, see [p6](#).

All current permits for the industry remain searchable at portal.apvma.gov.au/permits, while 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 the Hort Innovation membership program for free at www.horticulture.com.au/membership.

Full details of completed research can be found in project final reports which, when finalised, 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.

Minor use permits

Why minor use permits?

While the use of pesticides and other chemicals in the horticulture industry is being modified through the increasing uptake of integrated pest management approaches, there remains a need for the strategic use of specific chemicals.

Chemical companies submit use patterns for product label registrations to the Australian Pesticides and Veterinary Medicines Authority (APVMA) – however the custard apple industry is generally provided with limited label registrations because of its ‘minor’ crop status in this area (meaning the chemical companies can consider the market size too small to generate adequate commercial returns, based on the R&D investment required). This is where minor use permits come into play. The APVMA’s national permit system adds some flexibility to the approval process and provides a legal framework that can allow access to products for minor use purposes.

Permits in 2017/18

During the 2017/18 financial year, a successful application for new permit PER84992 was prepared by Hort Innovation and submitted to the APVMA, facilitated through the *Custard apple industry minor use program* (CU16000) and supported by data from the earlier AgVet grant project *Generation of residue data for pesticide minor use permit applications in horticulture crops 2015/16* (ST15026).

Successful renewals were also made through the minor use program for PER13951, PER13952, PER83212 and PER14905, with the latter two being supported through data generation investments.

Meanwhile, new permit PER83931 and renewed permits for PER14227 and PER13807 were also issued during 2017/18, with the applications submitted through the industry minor use program in the previous financial year.

See details for all of these permits in the table that follows.

Current permits

Below is a list of minor use permits for the custard apple industry, current as of September 1, 2018.

PERMIT ID	DESCRIPTION (CHEMICAL/CROP/PEST OR USE)	ORIGINAL DATE OF ISSUE	EXPIRY DATE	PERMIT HOLDER
PER11943	Copper and Mancozeb / Custard apple / Anthracnose	28-May-12	30-Jun-22	Growcom
PER83212 version 2	Prochloraz (Octave) + Mancozeb / Custard apple and other <i>Annona</i> species / Anthracnose	1-Sep-16	31-Mar-23	Custard Apples Australia (CAA) C/Hort Innovation
PER12450 version 6	Trichlorfon / Specified fruit crops / Fruit fly	06-Oct-11	31-Jan-21	Growcom
PER80374 version 2	Beta-cyfluthrin (Bulldock) / Custard apple, lychee, mango, persimmon / Various insect pests	01-Oct-15	31-Aug-22	Australian Lychee Growers Association
PER13158 version 9	Dimethoate / Specified citrus and tropical fruit commodities (inedible peel, post-harvest) / Various fruit fly species	06-Oct-11	06-Mar-19	Hort Innovation
PER13807 version 2	Phosphorous acid / Custard apple / Phytophthora	07-Nov-12	30-Sep-22	CAA C/Hort Innovation

[Continues >>](#)



PERMIT ID	DESCRIPTION (CHEMICAL/CROP/PEST OR USE)	ORIGINAL DATE OF ISSUE	EXPIRY DATE	PERMIT HOLDER
PER13951 version 2	Uniconazole-P (Sunny Plant Growth Regulator) / Custard apple / Plant growth regulation	28-Jun-13	30-Jun-23	CAA
PER13952 version 2	Pyraclostrobin (Cabrio) / Custard apple / Pseudocercospora leaf spot	31-May-13	30-Jun-23	CAA C/ Hort Innovation
PER14227 version 3	Etoxazole (Paramite Selective Miticide) / Custard apple / Two-spotted mite and banana spider mite	31-Oct-13	30-Jun-23	CAA
PER14491	Fipronil / Custard apple / Ants	28-Mar-14	30-Jun-19	CAA C/Hort Innovation
PER14743 version 2	Trichlorfon / Custard apple, lychee, mango and persimmon / Flatid planthopper, flower eating caterpillar, looper and yellow peach moth; Suppression only: fruit-spotting bug, banana spotting bug, green vegetable bug and lychee stink bug	1-June-14	30-Jun-20	Growcom
PER13859	Dimethoate / Orchard clean-up – fruit fly host crops following harvest / Fruit fly	9-Feb-15	31-Jul-24	Growcom
PER84992	Clothianidin (Samurai) / Custard apple / Citrus mealybug	19-Feb-18	28-Feb-23	CAA C/Hort Innovation
PER14905 version 2	Sulfoxaflor (Transform) / Custard apple trees / Citrus mealybug	29-Mar-15	30-Sep-19	CAA
PER83931	Abamectin / Custard apple / Two-spotted mite and banana spider mite	19-Jul-17	31-Jul-20	CAA

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.

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.

Marketing report

Hort Innovation is responsible for investing the custard apple marketing levy into a range of activities to drive awareness and consumption of the fruit, under the Hort Innovation Custard Apple Fund.

For the 2018 season, there was continued investment and work to raise awareness and increase appeal for custard apples by focussing on simple usage ideas and education of grocery buyers to help overcome current barriers to purchase. The marketing program involved a strong social media presence, leveraging of mainstream media channels, and new content development.

Content development

A key objective of the year was to show consumers different uses for custard apples, through beautiful recipes and photography. Five new recipes were created for use in social media and media outreach, with accompanying imagery and a video. The recipes included:

- » Easy chocolate custard apple sorbet
- » Ricotta and custard apple cheesecake
- » Custard apple and pear crumble
- » Custard apple chutney with pork
- » Caramelised custard apple, salmon and quinoa salad.

As a result of the recipe development and subsequent inclusion in media and social channels, some 11.5 million people were reached.





Social media activity

Throughout the 2018 custard apple season, the consumer-facing Custard Apples Australia Facebook page (www.facebook.com/custardapplesaustralia) proved a valuable channel for educating consumers and sharing insights on how to eat, store and cook with the fruit, and also for sharing custard apple facts and health information. There were two posts delivered to fans of the page each week from mid-March 2018 into mid-July 2018, using striking custard apple images including the new recipes, plus content developed by influencers and media. Grower images of custard apple farms and harvest proved to be popular, as were posts regarding use, selection and availability.

During its course, this social media activity reached more than 683,000 consumers, with the total number of followers of the Facebook page growing by 17 per cent to 9165, and engagement with individual posts above industry standards and the set key performance indicators of this activity.



Media outreach

Ahead of the season, a comprehensive media pack was developed to distribute to key media targets, including a press release covering seasonality, selecting, storing and usage tips, plus a variety of recipes and images. The marketing program was glad to enlist both Angela Jackson and Patti Smith as spokespeople for interviews and to answer other questions from media.

Coverage appeared across a range of top-tier print and online media outlets, including *BW Magazine* (a lift-out in *The Saturday Daily Telegraph*), *Women's Fitness*, *Women's Health*, *Body+Soul* and *9 Kitchen*, plus News Regional Media channels in Queensland.

The media outreach generated 63 individual pieces of custard apple coverage across traditional and social media, which enabled custard apple messaging to reach a total of 13.7 million consumers.

Media were most interested in the new bank of recipes, with the majority of coverage including recipe content, with dessert recipes being the most popular.

Lifestyle media continued to run educational articles, focusing on what custard apples are and how to use, select and store them.

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Financial statement

Financial operating statement 2017/18

	R&D (\$)	MARKETING (\$)	TOTAL (\$)
	2017/18 July – June	2017/18 July – June	2017/18 July – June
OPENING BALANCE	30,763	-1,261	29,502
Levies from growers (net of collection costs)	59,245	28,535	87,780
Australian Government money	94,094	–	94,094
Other income*	960	145	1,106
TOTAL INCOME	154,299	28,681	182,980
Project funding	154,221	18,073	172,294
Consultation with and advice from growers	2,131	487	2,618
Service delivery – Base	6,461	767	7,228
Service delivery – Shared	9,784	1,161	10,945
Service delivery – Fund specific	15,592	1,424	17,016
TOTAL EXPENDITURE	188,188	21,912	210,100
Levy contribution to across-industry activity	3,948	–	3,948
CLOSING BALANCE	-7,074	5,507	-1,567
Levy collection costs	-1,518	-765	-2,284

At the end of 2016/17, the industry's pro rata share of levy funds were committed to strategic reserves (\$9836 for R&D and \$5188 for marketing), and so have been deducted from the 2017/18 opening balance,

* Interest, royalties

Service delivery costs explained

Base service delivery (flat rate) = keeping the lights on

This figure contributes to the standard fixed costs that are incurred with the running of the business (for example, costs relating to rent, utility bills, equipment). These costs are calculated on a monthly basis and are based on actual program expenditure.

Shared service delivery (flat rate) = related to program delivery

Shared costs are related to program delivery and include costs that are incurred in supporting activities relating to R&D and marketing programs that are not attributable to any one levy industry (for example, costs relating to procurement and information technology activities). These costs are calculated on a monthly basis and are based on actual program expenditure.

Fund specific service delivery (flat rate for 2017/18) = direct servicing costs

These are the actual costs for activities and services that are directly incurred in the administration of levy program expenditure, and which are identifiable and attributable to a specific levy investment fund (for example, costs around direct relationship, marketing and fund management, and logistical costs around industry advisory meetings and activities). From 2018/19 these costs will be charged at cost on a monthly basis.

For more information explaining the costs in the financial summary, visit www.bit.ly/2x7ERLC.

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