

Processing Tomato Fund

Annual Report 2021/22



About Hort Innovation and the Processing Tomato Fund

Hort Innovation is the grower-owned, not-for-profit research and development corporation for Australia's horticulture sector. We work closely with industry to invest the voluntary processing tomato R&D levy – together with Australian Government contributions – into strategic initiatives through the Hort Innovation Processing Tomato Fund.

The voluntary levy was established by the industry as part of a 'collective industry fund' arrangement with Hort Innovation, and is set at a rate of 0.5 per cent of gross value of production.

How are investment decisions made?

Investments specific to the Hort Innovation Processing Tomato Fund are guided by the industry's Strategic Investment Plan (SIP). This document has been developed by the industry to outline key priorities for investment. The industry also has an advisory panel to provide prioritisation advice to Hort Innovation on potential voluntary levy investments.

Here's how your R&D levy was invested over the year

Outcome 1: Extension and capability

Improved capability and an innovative culture in the Australian processing tomato industry maximises investments in productivity and demand.

Project title and code	2021/22 investment	Status	More information
Processing tomato industry capacity building (TM17000)	\$20,000	Completed	hortinn.com/tm17000
Processing tomato industry development and extension (TM20000)	\$461,556	Ongoing	hortinn.com/tm20000

The processing tomato Strategic Investment Plan (SIP) guides investments specific to the Hort Innovation Processing Tomato Fund. The SIP features priority outcome areas identified and agreed upon by the industry. Hort Innovation works to invest in R&D initiatives aligned to these.

Delivering superior cultivars to the processing tomato industry

In 2020/21, the Australian processing tomato industry recorded an industry-wide average yield of 106.13 MT/ha, its highest on record. Contributing to this success is the cultivar trial work conducted by the Australian Processing Tomato Research Council (APTRC) in collaboration with the Hort Innovation-funded project *Processing tomato industry development and extension (TM20000)*.

The APTRC cultivar trial program has successfully identified several new, high-performing cultivars that are suitable to match or potentially replace the older ‘mainstay’ cultivars, some of which are being evaluated in machine harvest trials and others that are already being used in commercial plantings. The findings from the APTRC cultivar trials are extended to the processing tomato industry via the activities of the levy-funded capacity building program.

Cultivar Improvement Trial Program

“Cultivar trials are the backbone of the APTRC trial program as there is no current breeding program in Australian for processing tomatoes,” said Matt Stewart, the Industry Development Manager for the Australian Processing Tomato Research Council.

“To stay current with world best genetics in tomatoes, we need to put cultivars from breeding programs overseas through trials to conditions. This includes our climate, soil types and pest and disease pressures. We also assess varieties for yield, brix and field holding capacity, that is, the ability of the tomatoes to ripen but not rot or have any quality losses in the field if there is a delay in harvest.”

APTRC firstly conduct screening trials, where they plant out small plots on growers’ properties to see how new cultivars perform over the course of a typical season. APTRC use a consultant to assist Research Manager, Ann Morrison to critically assess the plant and fruit characteristics and then the highest scoring cultivars are put into the machine harvest trials. These are much larger, fully replicated, randomised plot design trials.

“The trials give us a greater understanding of the quality and quantity the new cultivars can produce. Growers and processors can use this information to decide whether they want to introduce one or more of those



Processing tomatoes picked from one of the cultivar trial sites

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Meet a grower

cultivars, into their commercial plantings. From there, growers can assess the new cultivars compared to the benchmarked cultivars they're already using."

Increased yields of between 150 and 219 MT/ha were identified in the machine harvest trials on properties in the Boort, Lake Boga and Echuca growing regions in 2020/21. To record such outstanding yields in the trial program, suggests that best management practices are being adopted by different growers across different soil types and regions.

The trials also provide industry with the ability to choose cultivars that have better pest and disease resistance. Matt said, "this is becoming ever more important as we strive for a more environmentally-savvy way of doing things, reducing our inputs and becoming more sustainable."

Another reason the cultivar trials are so valuable is for risk mitigation. Viroid screening of seeds coming from overseas can pick up viruses that are not wanted in Australia, which can put our seed supply chain at risk. Matt said, "our cultivar trials mean that we can identify desirable cultivars from multiple seed suppliers, and therefore don't have all our eggs, or seeds, in one basket."

Growers' integral to the trial work

"Almost all growers in the industry actually have the trials taking place on their properties – so they are first in line to see how the different cultivars are performing," said Matt. "It's important to note that our growers give up their own time and resources to plant the trials on their properties. They work closely with the APTRC Research Manager, Ann Morrison, to manage the trials, but it's a significant contribution from the growers and their employees to help run the cultivar trials."

"Having growers fully integrated into the APTRC trials is a key component of the program's success. The fact that growers commit additional time and energy into planting and harvesting the trials demonstrates how high the interest is in identifying cultivars with better production outcomes. The dividends from getting an improvement in yield and quality is worthwhile, and necessary in a climate of increasing costs."

Processing tomato growers meet at a cultivar trial site during one of their regular field days held by the APTRC



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Extending the results

Through the Hort Innovation funded program, APTRC communicates the results of the field trials to industry, ensuring that they have access to the information they need on cultivars to make informed business decisions.

“Everyone in industry has the opportunity to see for themselves the outcomes of the cultivar trials,” said Matt. “At our regular field days, everyone is able to visit different properties to see the characteristics and performance of the different cultivars side by side in the field.”

“We also hold a specific field day for seed company representatives where they’re invited to look at our screening trials and they can see how their own cultivars are performing in Australian conditions, compared to other options. This provides a valuable feedback loop. For example, last year a seed rep was able to see in the field that their cultivar was breaking down too soon for Australian conditions. This insight can help inform their future breeding activities or at the very least influence what cultivars they trial in Australia in the future.”

At the APTRC annual forum, the cultivar trials are presented on the big screen from last season and there is an opportunity to discuss them in an open forum with attendees from across the industry – such as growers, seed representatives and agronomists.

Matt also provides industry with progressive updates through their quarterly Tomato Topics newsletter, as well as publishing the full trial results in the annual grower magazine.

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Matt Stewart, Industry Development Manager for the Australian Processing Tomato Research Council

Meet David Chirnside, processing tomato grower from Kerang, Victoria

“I’m a second-generation grower from Kerang in Victoria, where my family has been growing tomatoes for over 30 years. Our current contract is for 18,000 tonnes a year.

The Australian Processing Tomato Research Council has been a great source of information for us over the years. We get our information from newsletters and Matt Stewart is always in contact with us throughout the year. We also have an annual industry forum, which gives great insights to new technologies and new cultivars, and things that have been monitored over the season. It’s also a great way to meet and share ideas with other growers.

Through the APTRC cultivar trials we have been able to discover a couple of new cultivars, in particular UG16112. We grew five hectares of it last year and are very happy with its field holding capacity with increased fruit size and yield. About half of next year’s production will be this cultivar – we are very excited, and this could only have come about through the work of the APTRC cultivar trials.

We are very grateful to Matt, Ann and the team at the APTRC – they are helping the whole industry grow together.”

> *David Chirnside (left) and Matt Stewart (right) at one of the cultivar trial sites*



Financial operating statement

Processing Tomato Fund (collective) Financial operating statement 2021/22

	R&D (\$)	Total (\$)
	2021/22 July – June	2021/22 July – June
OPENING BALANCE	-30,816	-30,816
Voluntary levies from growers	118,186	118,186
Australian Government money	273,923	273,923
Other income*	–	–
TOTAL INCOME	392,109	392,109
Project funding	481,556	481,556
Consultation with and advice from growers	–	–
Service delivery	66,289	66,289
TOTAL EXPENDITURE	547,845	547,845
Levy contribution to across-industry activity	–	–
CLOSING BALANCE	-186,552	-186,552
Levy collection costs	–	–

* 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