

FEBRUARY 2022

Lychee

Strategic Investment Plan 2017-2021

PERFORMANCE REPORT



Lychee SIP performance report

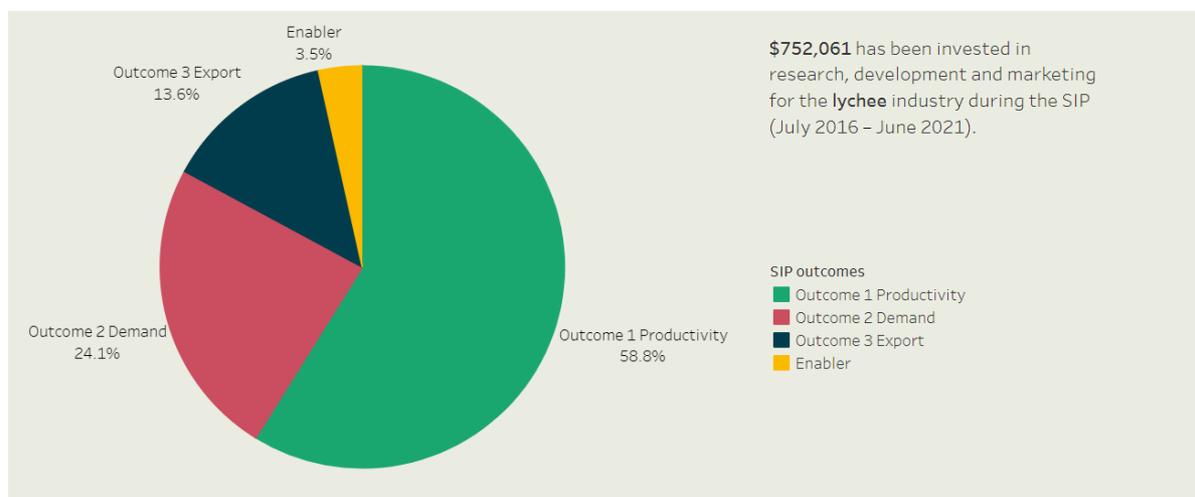
This performance report reviews the performance of levy investments delivered against the lychee Strategic Investment Plan (SIP), which was active for the 5-year period from 2016/17 to 2020/21. The SIP was developed to strategically guide research and development (R&D) and marketing levy investment in accordance with core industry priorities. The SIP featured three outcome areas, nine strategies and 11 key performance indicators (KPIs), summarised in Table 1. A total of \$0.8 million was invested into the Lychee Fund over the 5-year period of the SIP. The total investment expenditure allocated against each outcome is provided in Figure 1.

Table 1 — Lychee SIP outcomes

| Outcome | Description | Expenditure allocation* |
|-----------------|---|-------------------------|
| 1. Productivity | Increased capacity and productivity meets growing international and domestic demand | 58.8% |
| 2. Demand | Increased domestic demand improves price stability and industry attractiveness | 24.1% |
| 3. Export | Increased market access and export development improves returns to growers | 13.6% |

*Total investment \$0.8 million as of June 2021. Balance of expenditure comprises of enabler investments, which includes expenditure to support the delivery of the SIP including advisory meeting and publication costs.

Figure 1: Lychee SIP investment expenditure analysis



SIP performance analysis

This performance report reviews the investment achievements delivered within each outcome area that have generated impact for growers. The overall status of each strategic area, informed through an assessment of KPI performance, is also provided. The evaluation status and criteria were:

| Strategic area status | Criteria |
|-----------------------|---|
| Achieved | KPIs for this strategic area were met |
| In progress | Investment delivery remains ongoing |
| Not achieved | Investment was not prioritised in this strategic area |

The results have been informed from evidence compiled through reviewing investment documentation and engagement with project managers. Outcomes generated through the investments are documented and brief case studies of flagship performance and impact for each outcome area are also provided.

Outcome 1: Productivity – Increased capacity and productivity meets growing international and domestic demand

The lychee SIP 2017-2021 noted that there was potential for demand to outstrip production if export opportunities to the USA and China were realised. The SIP estimated that production would need to increase by 50% by 2021 and would require productivity improvements, additional tree plantings and the attraction of new growers to the industry.

Summary of strategic area and achievement status:

The strategies in the SIP that were identified to support lychee productivity are listed below. An achievement status is provided based upon internal evaluation of project performances:

| Strategic area | Status |
|--|-------------|
| Encourage new growers to the industry and existing growers to increase yields by demonstrating international and domestic demand is strong and growing | In progress |
| Research and adopt improved lychee production practices for better yields and improved quality | Achieved |
| Improved treatment protocols and supply chain technologies for pest management, market access and shelf life without impacting quality | Achieved |

KPI callouts:

- The *Australian Horticulture Statistics Handbook* (HA18002) reported that lychee production experienced a peak in production in 2018/19, with production of 2,733 tonnes. The average production over the 5-year period of the SIP was 2,500 tonnes, 15% higher than average production prior to development of the SIP.
- The project *Lychee pest and disease field guide* (LY19001) developed an updated guide for growers and industry service personnel to identify and manage lychee pests and diseases, serving to support lychee growers to undertake effective pest and disease monitoring and management in their orchards and encourage industry best practice management. This guide was distributed in hard copy to 400 levy paying producers and made available online.
- Postharvest treatments required to remove mites and other pests to ensure export market access were developed in *Treatment for mites on lychee fruit prior to irradiation for improved market access* (LY16002). Findings from this project were then further developed in *Mite and insect disinfestation of lychee fruit using high pressure water sprays* (LY18000) – see the case study below.

Case study: Mite and insect disinfestation of lychee fruit using high pressure water sprays (LY18000)

This project provided further investigation of postharvest lychee treatments required for pest management in order to develop export markets. The project built on an earlier investment, *Treatment for mites on lychee fruit prior to irradiation for improved market access* (LY16002), which considered oil treatments, and water sprays in combination with oil treatments, for removing mite and other insect pests on lychee fruit. This is of particular importance for quarantine export markets (and especially those where irradiation protocols are used), where fruit needs to be free of surface pests including mites.

The subsequent work undertaken in LY18000 further developed research on water spray treatments, specifically at optimising the efficacy of high-pressure water application to remove surface pests prior to packing, irradiation and export. This approach has the potential to allow higher throughput on the packing line.

This project demonstrated the efficacy of high-pressure sprays as a disinfestation tool for lychee surface pests through a number of trials. Grower confidence in the results following trials in 2018/19 saw two additional growers install high pressure wash systems for the 2019/20 season, with industry interest in this method continuing to grow.

Outcome 2: Demand – Increased domestic demand improves price stability and industry attractiveness

A healthy domestic market is required to help maintain price stability and to increase the attractiveness of the industry to potential growers. Marketing initiatives underpinned by quality lychees will help to ensure that domestic demand continues to grow.

Summary of strategic area and achievement status:

The strategies in the SIP that were identified to support lychee productivity are listed below. An achievement status is provided based upon internal evaluation of project performances:

| Strategic area | Status |
|--|--------------|
| Drive growth in domestic demand through targeted marketing initiatives | In progress |
| Engage domestic supply chain and retailer stakeholders to ensure high quality fruit reaches the consumer | Not achieved |

KPI callouts:

- Marketing initiatives to drive growth in domestic demand for lychees was delivered through multiple projects such as *Lychee retail support* (LY17514) and *Lychee in-store sampling campaign* (LY19502). The latter utilised in-store promotion of lychees with the aims of growing awareness of Australian lychees, increase the appeal of lychees and to drive conversion through trial.
- While purchase weight and average trips remained stable from 2018 to 2020, household penetration fell from 10% to 8.2% (Nielsen Homescan data).
- The *Australian Horticulture Statistics Handbook* (HA18002) reported that over the 5-year period of the SIP the average domestic supply was 0.082 kg/person, up from an average 0.078 kg/person prior to development of the SIP.
- HA18002 showed the farmgate price over the period of the SIP was an average \$11.97/kg per tonne, an increase from an average price of \$8.15/kg per tonne prior to development of the SIP.

Outcome 3: Export – Increased domestic demand improves price stability and industry attractiveness

The lychee SIP 2017-2021 identified exports as being the biggest opportunity for the lychee industry in terms of growth, profitability and sustainability. China was identified as the largest opportunity, whilst market access to the USA would provide further opportunity. Australian lychees are produced counter-seasonal to northern hemisphere production, which provides an advantage to exports.

Summary of strategic area and achievement status:

The strategies in the SIP that were identified to support lychee productivity are listed below. An achievement status is provided based upon internal evaluation of project performances:

| Strategic area | Status |
|--|-------------|
| Secure permanent market access to the United States and continue to support exports into New Zealand | In progress |
| Identify and prioritise market access to countries with a large or growing Asian middle class | In progress |
| Continue to develop market access to China | In progress |

KPI callouts:

- Lychee exports to the USA were strengthened in the project *US market access project* (LY15001). In this pilot program Australian lychees were exported to the USA over two years, demonstrating the potential for ongoing trade.
- The *Australian Horticulture Statistics Handbook* (HA18002) published that export volumes increased 115% between 2013 and 2021, achieving a peak in exports of 484 tonnes in 2018/19. The proportion of lychee production exported grew from 11% in 2012/13 to 18% in 2020/21.
- A new Lychee Industry Export Development Strategy was released in 2018 utilising analysis undertaken is part of *Tropical fruit export strategy* (MT17002). The strategy identified several markets with opportunity for growth in consumption of Australian lychees.
- The project *Treatment for mites on lychee fruit prior to irradiation for improved market access* (LY16002) aimed to identify a postharvest treatment to ensure fruit destined for quarantine export markets (USA and New Zealand) were free of non-target quarantine pests that are unknown to be neutralised by the irradiation protocol determined for target quarantine pests.
- Market access discussions with China were progressed through *Lychee knowledge transfer at the 2018 China Litchi conference* (LY17001). This investment supported attendance of Australian lychee industry representatives at the 2018 China International Litchi Business Conference held in Guangzhou.