

FEBRUARY 2022

Pineapple

Strategic Investment Plan 2017-2021

PERFORMANCE REPORT



Pineapple SIP performance report

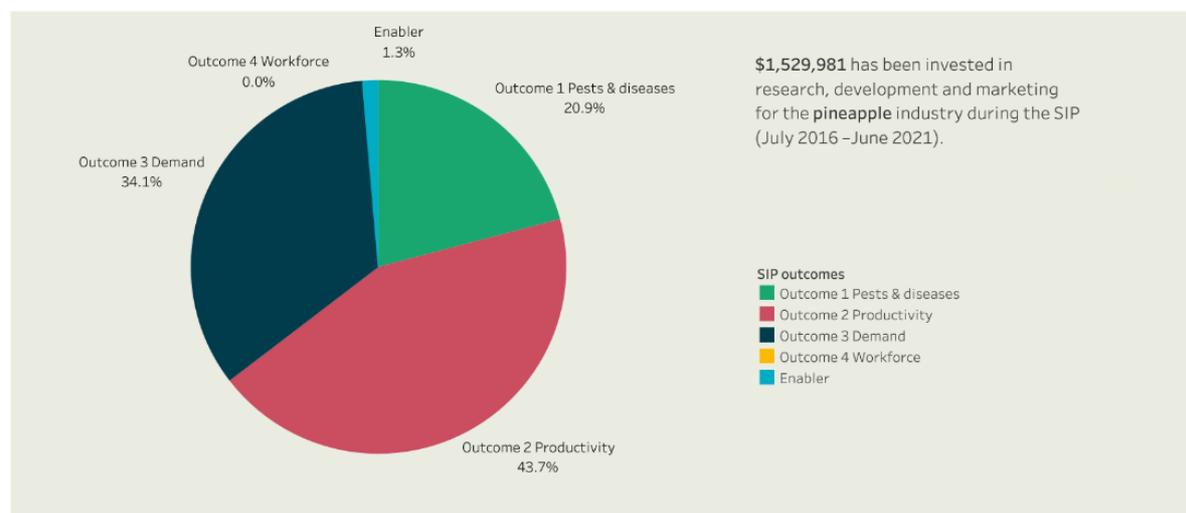
This performance report reviews the performance of levy investments delivered against the pineapple Strategic Investment Plan (SIP), which was active for the 5-year period from 2016/17 to 2020/21. The SIP was developed to strategically guide research and development (R&D) and marketing levy investment in accordance with core industry priorities. The SIP featured four outcome areas, nine strategies and 12 key performance areas (KPIs), summarised in Table 1. A total of \$1.5 million was invested into the Pineapple Fund over the 5-year period of the SIP. The total investment expenditure allocated against each outcome is provided in Figure 1.

Table 1: Pineapple SIP outcomes

Outcome	Description	Expenditure allocation*
1. Pests and diseases	Improved pest and disease management and best practice adoption increase grower productivity and sustainability	20.9%
2. Productivity	Adoption of continuous improvement and automation technology increase grower productivity and profitability	43.7%
3. Demand	Increased consumer demand, product quality and consistency increase returns to growers	34.1%
4. Workforce	The attraction and development of new growers to improve industry sustainability	0.0%

*Total investment \$1.5 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: Pineapple 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: Pests and diseases – Improved pest and disease management and best practice adoption increase grower productivity and sustainability

The pineapple SIP 2017-2021 noted that pest and disease management requires ongoing investment into maintaining and improving crop production systems. Guidance to producers on reducing runoff, input optimisation, minimising biosecurity risk and improving water and soil management all have the potential to improve grower productivity and sustainability once adopted by industry.

Summary of strategic area and achievement status:

The strategies in the SIP that were identified to improve pineapple pest and disease management are listed below. An achievement status is provided based upon internal evaluation of project performances:

Strategic area	Status
Ensure that growers have continued access to crop management systems to help manage pests and disease and include in the development of their integrated pest and disease management (IPDM)	In progress
Minimise biosecurity risks by helping growers adopt practices outlined in the industry's biosecurity plan	Not achieved
Minimise the industry's environmental impact through effective R&D and adoption to feed into an IPDM strategy and existing best management practice (BMP) approaches	In progress

KPI callouts:

- 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 (APVMA) which, when approved, will provide access to safe and effective chemicals for the management of pests, weeds and diseases. Supporting investments for the pineapple industry included *Generation of data for pesticide applications in horticulture crops 2018* (ST17000), *Generation of data for pesticide applications in horticulture crops* (ST18001), and *Generation of residue data for permit applications 2017* (MT17012).
- Efficacy and residue trials in the investigation of weed control products to replace diuron were undertaken in the project *Crop protection replacement for diuron in the pineapple industry* (ST15029). Evaluation based on efficacy and crop safety identified four products suitable for further investigation.
- The project *Melon and pineapple industry SARP report updates* (MT18007), assessed the importance of the disease, insect and weed that can impact the industry, and assessed their treatment options. The process provided a clear view of the current priorities and gaps regarding pest, disease and weed control.
- The ongoing program *Pineapple integrated crop protection program* (PI17001) facilitates information flow to pineapple growers on integrated crop protection to help the industry achieve higher yields and produce high-quality fruit with lower production costs and a reduction in the use of pesticides. This has been supported through the quarterly *Pineapple Press* e-newsletter, study group workshops and through the Australian Pineapples website. The ongoing demonstration trials demonstrate best practice regards to integrated pest and disease

management strategies with a focus on expanding the range of management options available.
(See outcome 3 case study for further details.)

Outcome 2: Productivity – Adoption of continuous improvement and automation technology increase grower productivity and profitability

The adoption of continuous improvement approaches and research into automation technologies to increase pre-harvest and postharvest efficiencies to assist growers in being more productive and profitable. The pineapple SIP 2017-2021 also recognised the role that industry and market data can have on good decision-making, driving industry change to be more productive and profitable.

Summary of strategic area and achievement status:

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

Strategic area	Status
Foster and support new pathways to help growers adopt continuous improvement practices	In Progress
Research the potential automation technologies to improve productivity	Not achieved
Continue to build on industry production benchmarking and supply chain data initiatives to support decision making	In Progress

KPI callouts:

- The ongoing program *National pineapple breeding and evaluation program* (PI17000) is developing improved pineapple varieties that will support grower productivity. (See case study below.)
- The ongoing program *Pineapple integrated crop protection program* (PI17001) publishes an annual production estimate and crop forecast by region, which can be used by industry to support decision-making. See the case study under outcome 3 for further aspects of this broad project.

Case study: National pineapple breeding and evaluation program (PI17000)

This large ongoing project is working towards the release of new pineapple varieties suited to Australia's key pineapple growing regions. There is a focus on developing and evaluating high-yielding varieties with improved disease resistance and flowering control, as well improved fruit consistency and quality, to meet the needs of both growers and consumers, and promote grower productivity and profitability.

The program is reviewing existing commercial varieties and advanced varieties developed through previous breeding work, while implementing a novel approach to pineapple breeding – utilising a low level of in-breeding – to develop new elite lines.

The project remains ongoing and is due for completion in mid-2023. There has been much progress to date. As of March 2021, the team has developed more than 35,000 seedlings, with approximately 32,700 seedlings planted and harvested across four sites in Queensland. An additional field site in Bundaberg was established with a further 1,000 plants.

Improvements are being made in fruit size, total soluble solids (TSS), and slip and fruit stem reduction. Arrangements are underway to commence tests on a range of varieties for resistance to the *Dickeya sp* pathogen in the Northern Territory.

Outcome 3: Demand – Increased consumer demand, product quality and consistency increase returns to growers

The importance of consumers having consistent access to quality pineapples to support marketing efforts and grow domestic demand was noted in the pineapple SIP 2017-2021. Effective engagement with growers, supply chain and retail stakeholders was required to identify and address issues impacting quality and consistency.

Summary of strategic area and achievement status:

The strategies in the SIP that were identified to improve pineapple quality and consumer demand are listed below. An achievement status is provided based upon internal evaluation of project performances:

Strategic area	Status
Improve the consistency and quality of fruit reaching the consumer	In progress
Drive growth through targeted marketing initiatives	Achieved

KPI callouts:

- The ongoing breeding program *National pineapple breeding and evaluation program* (PI17000) is working on developing new varieties with, amongst other attributes, improved fruit consistency and quality, to meet the needs of both growers and consumers.
- Domestic marketing initiatives was delivered through multiple projects including *Pineapple social media and PR campaign* (PI17508), *Pineapple retail support* (PI17514), *Pineapple awareness campaign* (PI15502), *Pineapple social media* (PI20502), and *Aussie Pineapples website* (PI17511).
- Marketing campaigns have focused on promoting the year-round availability of Australian pineapples through social media initiatives, and media engagements, which have included partnerships with dieticians. Consumer research performed in 2018 identified that while 43% of pineapple purchases are planned, the remaining 57% are impulse buys, illustrating the ongoing opportunity for increased consideration by consumers throughout the year.
- Insights on consumer purchasing behaviour from project *Consumer behavioural and retail data for fresh produce* (MT17015) indicate that households purchased pineapples 4.1 times a year in 2021, an increase from 3.8 times in 2018 whilst the weight purchased per trip has stayed relatively flat. The annual weight of purchase also increased from 3.2 kg in 2018 to 3.7 kg in 2021. The number of households purchasing fresh pineapples has increased marginally, from 31% in 2018 to 32.2% in 2021.

Case study: Pineapple integrated crop protection program (PI17001)

This ongoing program *Pineapple integrated crop protection program* (PI17001) which began in 2018 is responsible for bringing information on integrated crop protection to Australian pineapple growers to help the industry achieve higher yields and produce high quality fruit with lower production costs and a reduction in the use of pesticides. The project also facilitates information exchange with and between growers, pineapple industry advisers, chemical company representatives and the broader supply chain with overall outcomes of increasing returns to growers.

PI17001 encompasses a broad range of activities, and over the first three years of the project, six editions of the *Pineapple Press* newsletter have been produced and distributed to growers and the wider industry.

Seventeen demonstration trial sites have been established covering each of the five research topics, namely: site selection and drainage; ground preparation, fallow management, and bed formation; pre- and post-plant nutrition management; integrated pest and disease management; and management of erosion and sedimentation.

Several grower workshops and study group meetings have been held, with attendance by many growers and non-growers covering demonstration trial results, industry updates, nutrition, farm visits, breeding program and product quality. Field days in Bundaberg (2021) and South East Queensland (2019) have been well attended by both growers and the broader industry.

In a mid-term review of the project a survey of pineapple growers indicated that 67% felt well informed about the demonstration trials, and 64% knew where to find more information about the trials. All those surveyed were aware of the demonstration trials taking place. The *Pineapple Press* e-newsletter was also well received, with 78% of respondents reading the publication.

Outcome 4: Workforce – The attraction and development of new growers to improve industry sustainability

The pineapple SIP 2017-2021 noted the need for both new and current growers to be supported through extension and training activities to enhance innovation and sustainability. Greater retention, attraction of new growers and improved farm sustainability were aim for by demonstrating the profitability of the industry.

Summary of strategic area and achievement status:

The strategies in the SIP that were identified to improve the pineapple industry workforce are listed below. An achievement status is provided based upon internal evaluation of project performances:

Strategic area	Status
Support on-going industry success with a focus on attracting and developing new growers and growers that are innovative	Not Achieved

Expenditure under this outcome was not prioritised over the 5-year period of the SIP.