



Sugar Research
Australia

SUGAR RESEARCH AUSTRALIA LIMITED

ANNUAL OPERATING PLAN

2025-26



Sugar Research Australia Limited

Brisbane Office Level 10, 300 Queen St, Brisbane QLD 4000 Australia

Postal Address GPO Box 133, Brisbane Qld 4001 Australia

T 07 3331 3333

E sra@sugarresearch.com.au

sugarresearch.com.au

Acknowledgement of Country

In the spirit of reconciliation, SRA acknowledges the Traditional Custodians of country and their unique cultural and spiritual relationships to the land, waters and seas and their rich contribution to society. We pay our respects to Elders past, present and emerging, and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

Acknowledgements

SRA acknowledges and thanks its investors, including levy payers (sugarcane growers and millers), the Commonwealth Government and the Queensland Government.



Numbers in charts and tables included in this plan may be affected by rounding.

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ABOUT SUGAR RESEARCH AUSTRALIA

Sugar Research Australia (SRA) is the specialist research organisation for the Australian sugar industry established in 2013 as a company owned by sugar growers and millers. SRA serves as the declared Industry Services Body for the Australian sugarcane industry under the Sugar Research and Development Services Act 2013 (Cth).

OUR VISION

To be a trusted partner, shaping the future prosperity of the Australian sugarcane industry and regional communities through innovation and ingenuity.

OUR PURPOSE

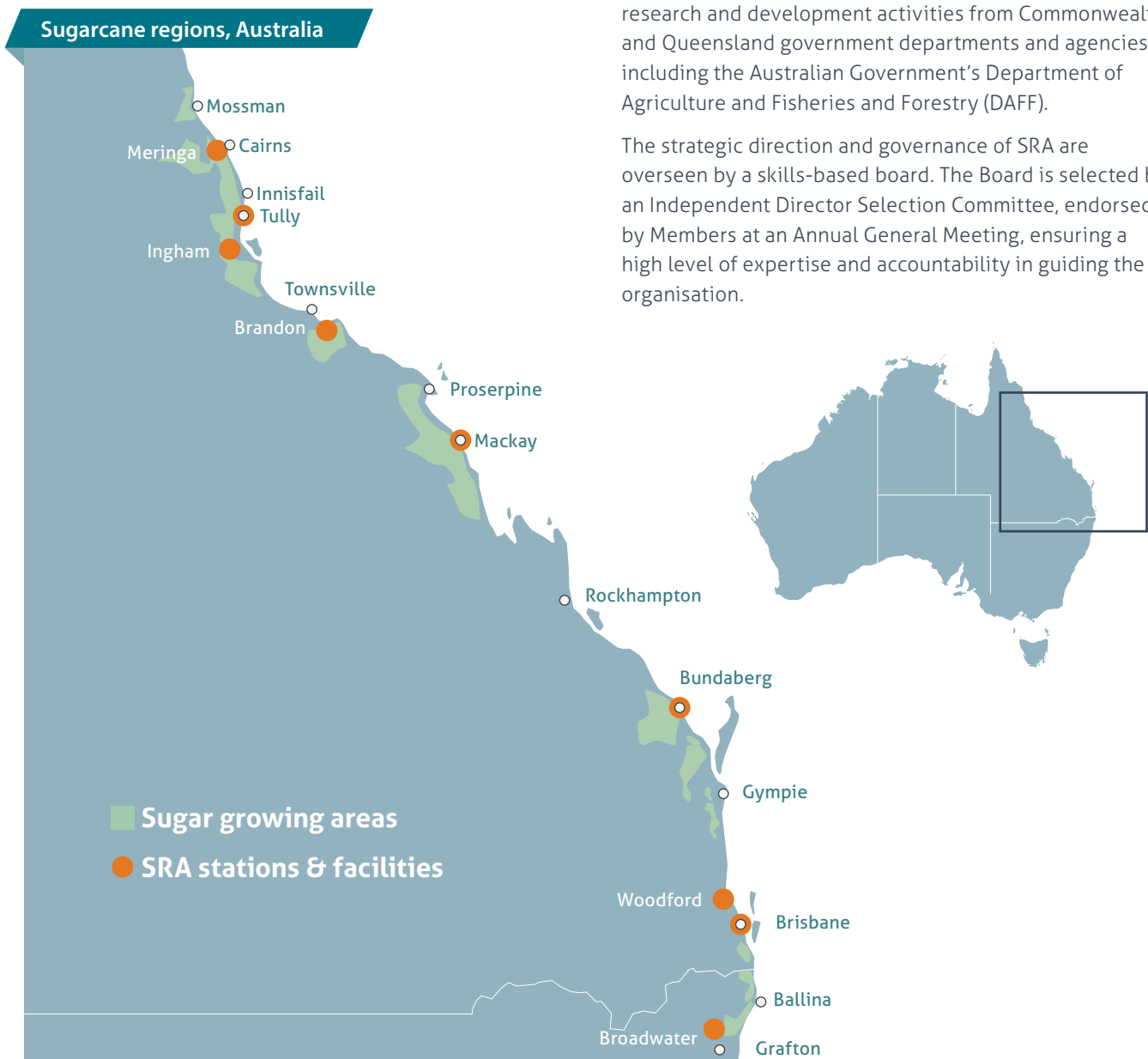
We keep the Australian sugarcane industry competitive, productive and sustainable through innovative research and product development.

OUR STRUCTURE

SRA is unique to the rural research and development corporation (RDC) landscape and operates an extensive network of research farms, laboratories, and offices throughout the industry's regions. This widespread presence ensures that SRA staff, as well as research and adoption efforts are accessible to all growers and millers.

The primary source of funding for SRA's activities is the statutory sugarcane levy, which is paid by growers and millers to support research and development activities. SRA also receives matching funding and grants for eligible research and development activities from Commonwealth and Queensland government departments and agencies including the Australian Government's Department of Agriculture and Fisheries and Forestry (DAFF).

The strategic direction and governance of SRA are overseen by a skills-based board. The Board is selected by an Independent Director Selection Committee, endorsed by Members at an Annual General Meeting, ensuring a high level of expertise and accountability in guiding the organisation.



2025/26 PRIORITIES

In addition to SRA's core work for the Australian sugar industry including breeding worldclass sugarcane varieties, managing a balanced portfolio of technologies to improve farm and mill productivity and profitability, and delivering these through district productivity plans and industry services, SRA has identified four priority areas to address longterm productivity decline and ensure ongoing RD&A investment.

FOR 2025/26, OUR OBJECTIVES ARE:



VARIETIES

- Complete a review and produce an action plan with milestones in 2025/26 to improve performance and/or reduce costs in the variety development program.
- Develop a five-year variety improvement program aligned with the Strategic Plan 2026-2031, targeting step change improvements in annual genetic gains of 1.5%. Benchmark against peer countries and adjacent crops to ensure a step-change in SRA's program with defined 10-year genetic gain targets.
- Review and improve the variety release process by developing an improved framework.
- Improve the transparency of performance and impact of the program to stakeholders.
- Additionally, we will continue our core work in variety development to breed for innovative, high-performing varieties that consistently underpin the success of the industry's crop production and protection while lowering development costs and shortening cycle-times.



ADOPTION

- Review the district plan process and develop a collaborative, data-driven model with quantifiable actions, outcomes, and comprise the key risks and opportunities in each district. Additionally, include pests and diseases where relevant.
- Deliver a five-year adoption improvement program aligned with the Strategic Plan 2026-2031, targeting step change improvements in district plans, extension, stakeholder engagement, resourcing, communications, and measurable outcomes.
- Additionally, we will continue our core work by implementing our district productivity plans to address local productivity constraints and support growers to adopt technologies that demonstrably improve farm productivity and profitability.



PESTS AND DISEASES

- Develop detailed project plans for key endemic and exotic industry threats requiring a response from SRA, including research, commercialisation where necessary, communication, and resourcing.
- Additionally, we will continue our core work to develop and deploy new pest and disease control technologies through our research portfolio, incorporating innovations from both SRA and external researchers, as well as supporting growers locally to manage endemic and exotic threats.



FINANCIAL SUSTAINABILITY

- Deliver a budget for 2025/26 that delivers a cash deficit for the year of \$5 million or less.
- Develop a plan to correct the calculation for the gross value of production to increase matching funding.
- Develop a plan to generate at least \$1 million per year in net funds from commercialisation of IP and varieties within three years.
- Develop a plan to generate at least \$1 million per year from partnerships and co-investment in SRA activities within three years.
- Develop a five-year plan to achieve cashflow breakeven in 2026/27, with modest surpluses in subsequent years.
- Additionally, SRA has objectives in place to maintain standard business operations over the year including, but not limited to, industry satisfaction, engagement with communications, and managing safety.

CAPABILITY AND CAPACITY

KEY RESPONSIBILITIES

The organisation exists to:

- Deliver cost-effective research and development services to the Australian sugarcane industry to enhance its viability, competitiveness, and sustainability.
- Carry out, coordinate, and provide investment for R&D activities in relation to the Australian sugarcane industry.
- Facilitate the dissemination, extension, adoption, and commercialisation of results of R&D activities.

KEY CAPABILITIES

With a Full-Time Equivalent (FTE) of 141.6 employees across eight research stations and six farms, SRA is uniquely positioned with extensive in-house research and adoption capability across critical research disciplines, including variety development, agronomy, entomology, pathology, soil, weed and environmental science.

SRA has an impressive track record of collaboration and an extensive network of international and national partners. SRA draws upon the combined capability of these partners to deliver high quality R&D to the industry and transfer scientific breakthroughs which happen in other sectors, seamlessly into the Australian sugar industry.



INDUSTRY OUTLOOK 2025/26

The Australian sugar industry is mainly located along Australia's north-eastern coastline, from Grafton in Northern New South Wales to Mossman in Far North Queensland. Sugar production is one of Australia's largest rural industries with 95% of raw sugar produced in Queensland and 5% in northern New South Wales.

Sugarcane production is forecast to rise by 4% to 30 million tonnes in 2025/26, driven by increased harvested area and yields¹. This is expected to produce 4.1 million tonnes of sugar manufactured by milling companies, also up 4%. Despite modest production gains, domestic sugar prices are forecast to fall by 11% to \$625 per tonne due to weaker global prices. As a result, sugar export value is expected to decline by 6% to \$2.3 billion, and the gross value of sugar production is forecast to fall by 8% to \$1.6 billion.

Globally, world sugar supply is forecast to increase by 4% in 2025/26, driven by strong production in Brazil and

Thailand¹. World sugar demand is expected to rise slightly, in line with population growth, but remain relatively stable due to weaker economic conditions in key importing countries like China and Indonesia.

At the farm level, there are approximately 3,500 levy payers operating farms in Queensland and New South Wales. The average financial performance of farms has notably improved based on the most recent estimates. In 2020/21, the average cash income was approximately \$190,800 per farm, which is 91% higher than the average in 2013/14².

Producers remain confident in the future of the Australian sugar industry, though net sentiment has declined. In 2024/25, growers reported a net sentiment of +54 (on a scale of -100 to +100), down from +78 in 2023/24³. Milling companies maintained strong confidence, reporting +89 over the same period, down slightly from +97⁴.

¹ Australian Bureau of Agriculture and Resource Economics and Sciences (2025). Agricultural Commodities Report: June quarter 2025. ABARES, Canberra, DOI: <https://doi.org/10.25814/c3hw-fq33>. CC BY 4.0.

² Topp, V, Litchfield, F, Coelli, R & Ashton, D. (2021). Financial performance of sugarcane farms 2020-21 to 2021-22. Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra. DOI: <https://doi.org/10.25814/czw3-ez74>.

³ Sparks, M. & Slattery, R. (2024). 2024 SRA Grower Survey: A Survey of SRA Members. Intuitive Solutions, Melbourne.

⁴ Sparks, M. & Slattery, R. (2024). 2024 SRA Miller Survey: A Survey of Milling Companies. Intuitive Solutions, Melbourne.



STRATEGIC AND OPERATIONAL PLANS

STRATEGIC PLAN 2021-2026

SRA launched the *Strategic Plan 2021-2026*, after significant engagement with key industry stakeholders to ensure we continued to evolve to meet the needs and priorities of growers and millers and the sugar industry more broadly.

The plan had a transformational focus, providing a vision for progressing and evolving SRA to stay relevant, innovative, commercial, and sustainable.

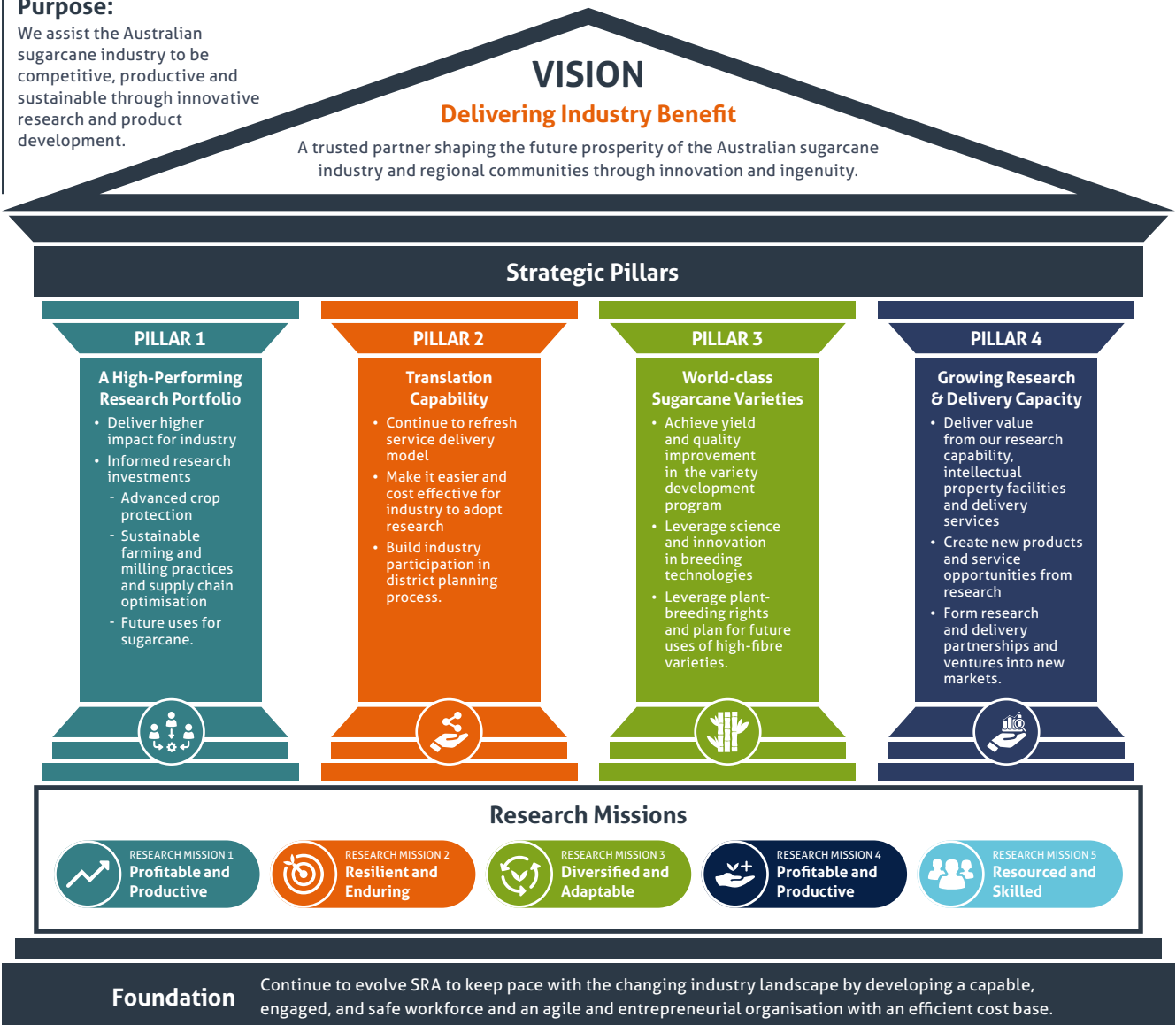
In 2023, the SRA Board reviewed the first year of the plan to ensure research and services continue to benefit

levy payers and regional communities. The *Strategic Plan Update* refined our focus, providing a roadmap to address key opportunities and challenges for the sugar industry.

Using the updated plan, developed in consultation with stakeholders, we continue to evolve to meet the needs and priorities of levy payers and regional communities more broadly. The plan has been transformative, providing a vision for ensuring SRA's activities remain relevant, innovative, and sustainable through continuous improvement.

Purpose:

We assist the Australian sugarcane industry to be competitive, productive and sustainable through innovative research and product development.



TEN-YEAR R&D PLAN 2024-2034

In 2024, SRA released its Ten-Year Research and Development (R&D) Plan 2024-2034 to chart our course for investment in research and development (R&D), aimed at addressing key issues and critical challenges faced by Australian sugar growers and millers.

The purpose of the R&D Plan is clear: to bolster the industry's competitiveness, productiveness and sustainability through innovative R&D while benefiting the regional communities within which the industry is located.

It aims to steer investment in research on behalf of the growers and millers and the Australian government to improve the profitability and sustainability of the industry using an integrated approach across five R&D programs including:



VARIETIES



AGRONOMY & FARMING SYSTEMS



CROP PROTECTION



MILLING & PROCESSING



ADOPTION

ANNUAL OPERATING PLAN 2024-25

The Annual Operating Plan (AOP) details investment in Research Development and Adoption (RD&A) activities and outputs, aligning with SRA's Strategic and Ten-Year R&D Plans, to be managed by SRA over the financial period. It includes all core and contestable funded activities such as grant projects, programs and services, and district productivity plan activities, specifying the delivery provider and aggregate expenditure.

SRA has a balanced and collaborative research portfolio of investments that deliver tangible solutions and options to advance the productivity, sustainability, profitability, and long-term growth prospects for the Australian sugar industry. By aligning research investment with the five R&D Programs described above – as opposed to Research Missions as in previous AOPs – SRA will embark on a new method of reporting by R&D program, offering consistency with the Ten-Year Plan.



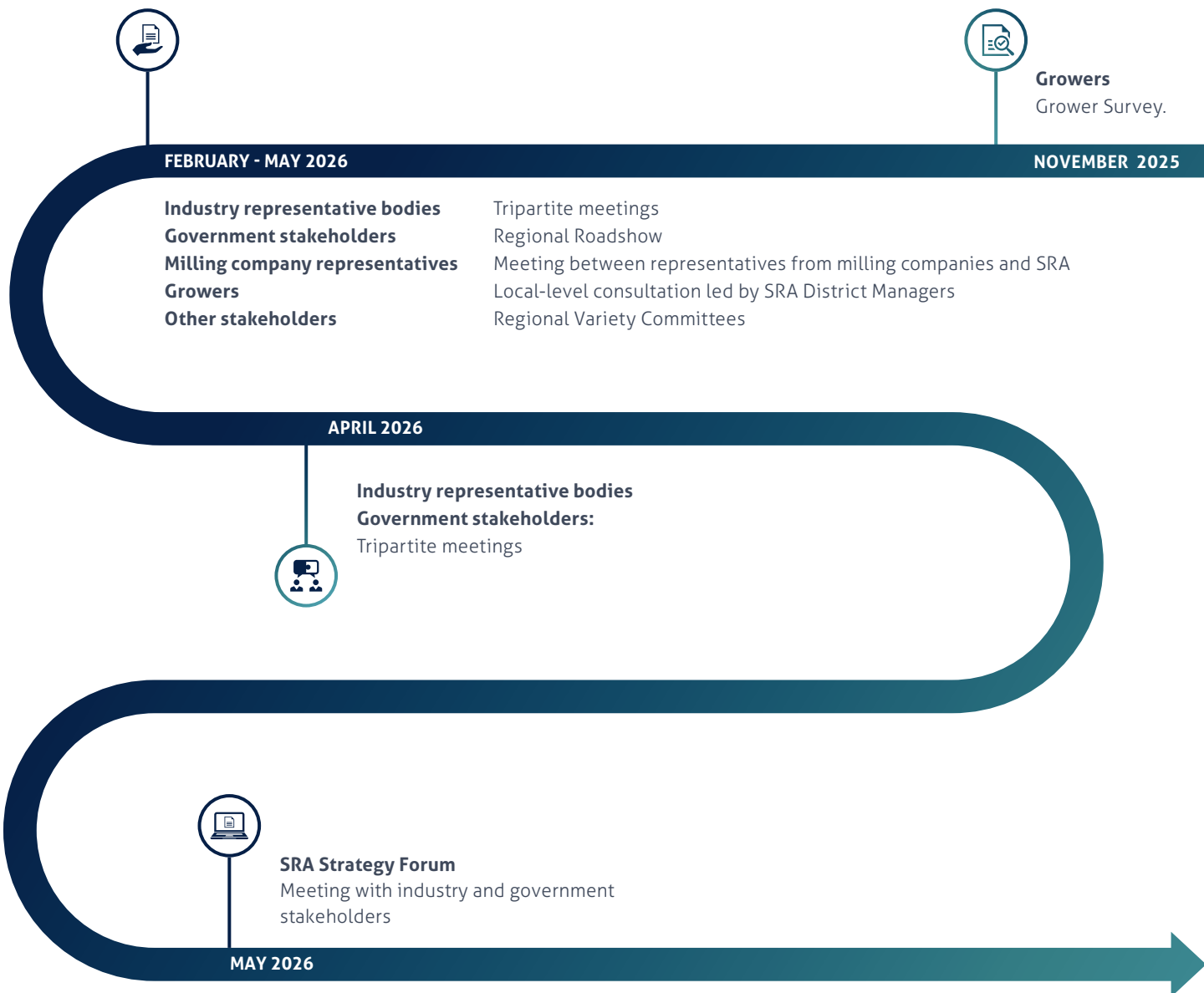
STAKEHOLDER ENGAGEMENT

SRA is committed to responding to research priorities identified by industry and government to deliver meaningful impacts for the sugar industry and broader Australian community.

Strategic Plan 2026-2031, commencing in July 2026. This consultation will ensure SRA's RD&A investments are aligned with stakeholder identified industry issues and opportunities.

In 2025/26, SRA will undertake structured stakeholder consultation to identify research priorities for the

OUR ENGAGEMENT PROCESS FOR 2025/26 WILL BE AS FOLLOWS



SRA will outline the feedback received through these consultations in the *Strategic Plan 2026-2031* and the *Annual Report 2025/26*, indicating how we have incorporated it, and explaining where we have not and why.

For more information about SRA's stakeholder engagement process refer to our Stakeholder Engagement and Consultation Plan, available on SRA's website: www.sugarresearch.com.au.

NEW RESEARCH INVESTMENT ADDRESSES PRIORITIES

Following consultation with industry and government stakeholders during the 2024/25 engagement process, we identified the areas for new investment in RD&A activities in 2025/26.

Accelerating deployment of genomic selection across SRA's Variety Development Program to improve yield, commercial cane sugar, and other key and reducing development by two-three years. Our team is targeting a program-record of 3,000 clones for sequencing, progressing towards 10,000 per year by 2030.

To support this, we're investing in enabling technologies, including a new DNA extraction instrument at IRIS Laboratories in Acacia Ridge, and the appointment of a post-doctoral fellow to modernise the program.

This investment will deliver tools and models to target key production environments, optimise program costs, maximise genetic gain per unit cost, and guide crossing programs, ensuring new varieties are tailored to local growing conditions.

Increased investment in next-generation breeding solutions.

SRA and the Queensland Department of Primary Industries have committed \$7.8 million to grant projects led by world-class researchers, including the University of Queensland.

These projects will develop enabling technologies for SRA's Variety Development Program, including advanced genomics, predictive breeding, trait identification and selection, phenotyping, and artificial intelligence.

Fast tracking solutions to endemic and exotic threats

In response to industry feedback and the potential withdrawal of key chemicals, we are fast-tracking field testing of alternative insecticides to replace imidacloprid for cane grubs and herbicides to replace paraquat.

We are also co-investing with other RDCs in defensive technologies against exotic threats, including the Biosecurity Trakka platform, which uses genomic data to inform biosecurity RD&A. Additionally, detailed investment plans will be prepared this year to guide SRA's crop protection investments to address most critical threats, and inform the Strategic Plan 2026-2031.

Drive Adoption of new varieties and technologies

The agriculture sector has traditionally been slow to uptake new technologies and adopt new practices. SRA acknowledges the need to work with growers to support and encourage individual education of the opportunities presented, highlighting the productivity gains available through new innovations and practice changes.

A recent review found that stakeholder trust can be strengthened through more tailored, practical, and region-specific events. Most importantly, driving adoption requires a targeted, campaign-based approach with clear recommendations, grower/miller testimonials, and direct support to growers. We will work with industry stakeholders to ensure the available changes are supported and information and resources are communicated and offered where the grower is able to access them.



RESEARCH PORTFOLIO

SRA has designed a balanced research portfolio that combines investment in developing new varieties, advancing research technologies, and deploying innovations for industry adoption via our district productivity plans, adoption programs, and services.

SRA’s investment planning is guided by our strategic objectives, industry and government priorities, technical and commercial feasibility and risk assessments, and the expected impacts for growers, millers, and regional communities. This approach ensures our research investments are strategic, collaborative, and targeted to improve profitability, productivity, and preparedness for future opportunities and challenges.

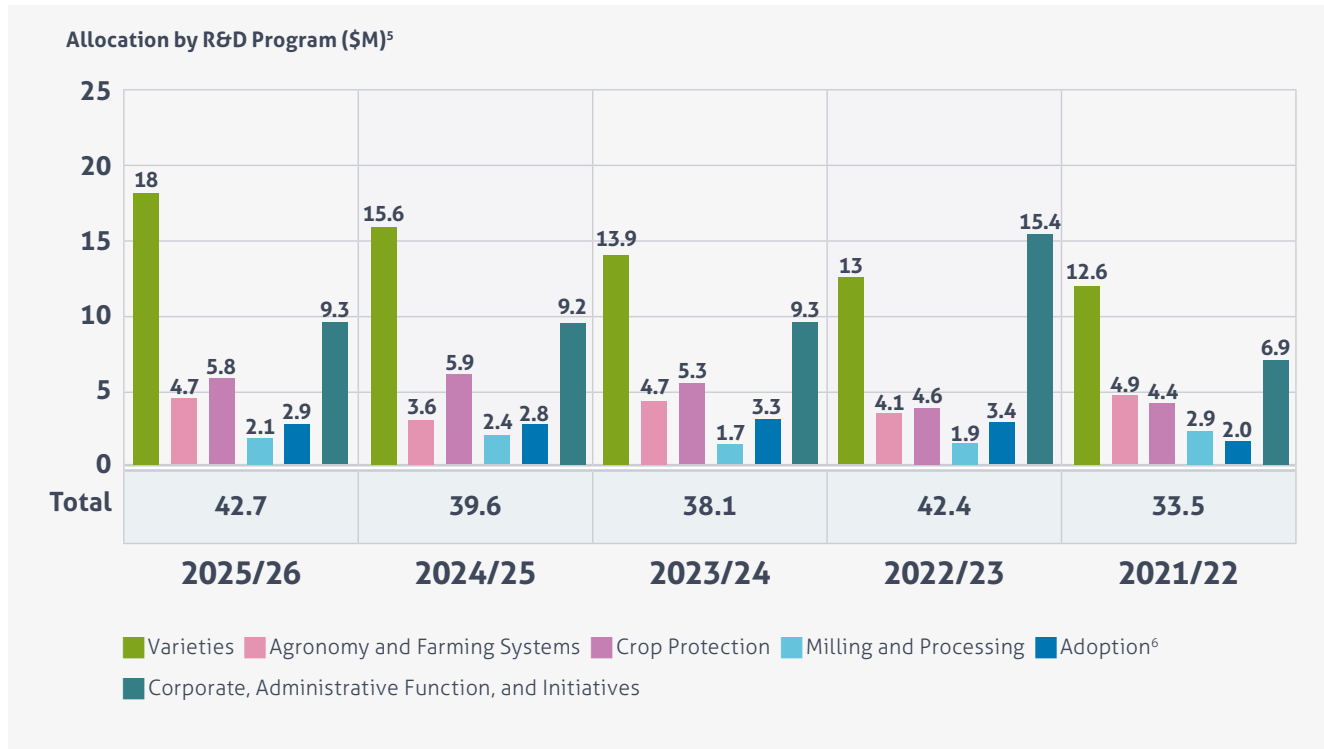
In response to a recommendation from the *Independent Performance Review 2024* to better align priorities across the *Strategic Plan 2021-2026* and *Ten-Year R&D Plan 2024-2034*, SRA began reporting by R&D Programs to provide a longer-term view of investment.

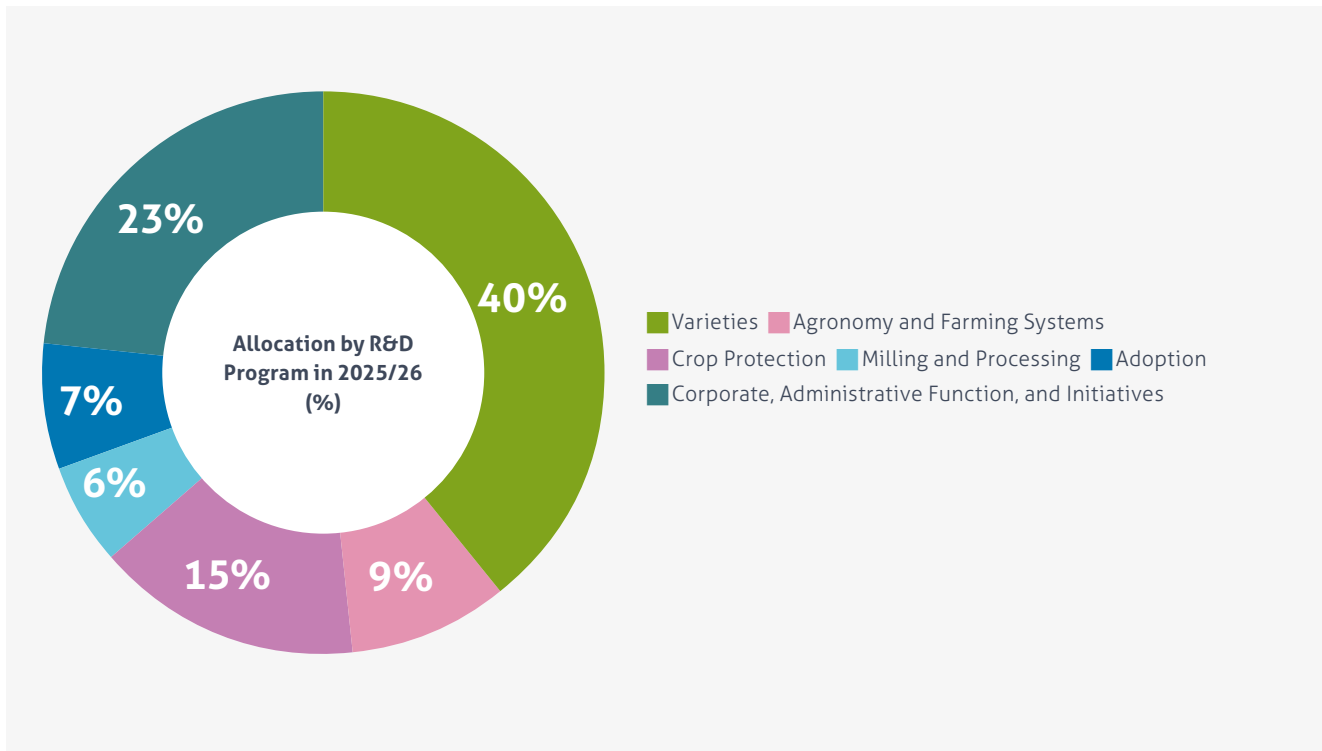
In this plan, investment allocations and research activities are grouped by R&D Programs rather than Research Missions, marking the first step in addressing this recommendation. This approach is consistent with SRA’s broader reporting across communication channels, including our *Cane Matters* publication.

PORTFOLIO BALANCE

SRA invests across five integrated R&D programs including Varieties, Agronomy and Farming Systems, Crop Protection, Milling and Processing, and Adoption to maintain a balanced, risk-managed portfolio that targets priority impact areas identified by industry and government. The charts in this section illustrate allocation by these key dimensions.

Additional reporting, including a summary of income and expenditure by business functions and strategic and government priorities, is provided on page 42.





Allocation by Technology Maturity and Risk in 2024/25 (\$M)⁷

PROGRAM	RESEARCH	DEVELOPMENT ⁸	DEPLOYMENT
Varieties	0.3	16.4	1.3
Agronomy and Farming Systems	0.5	3.8	0.5
Crop Protection	0.5	5.1	0.2
Milling and Processing	0	0.8	1.3
Adoption	0	2.8	0.1
Total	1.3	28.8	3.3

Excluding \$9.3M for corporate and administrative functions and strategic initiatives.

OUR STRATEGIC FOCUS

The following section outlines the RD&A activities that SRA is funding in 2025/26 across the five R&D Programs, including grant projects, programs and services, and district plan activities, along with research providers.

⁵ Numbers may be affected by rounding.

⁶ Investment in adoption has decreased historically; however, under SRA's Strategic Plan 2026-2031, this area will become a priority, with a larger allocation of resources expected.

⁷ RD&A activities are categorised by technology maturity using Technology Readiness Levels (TRLs) including: **Research:** Early-stage, high-risk technologies under experimental validation, requiring further development. **Development:** Mid-stage, generally medium-risk prototype or pre-commercial technologies tested in field or factory settings, requiring further development. **Deployment:** Late-stage, generally low-risk, commercially validated technologies and services ready for or in industry use.

⁸ Includes costs for research support functions such as regional facilities.



Varieties – Create the potential

RATIONALE:

Long term genetic gain is a key lead indicator of our breeding program performance. The SRA rate of genetic change has improved from being negative for the six-year period to the 2015 Final Assessment Trial (FAT) series, to a new benchmark of 1.3% with the addition of plant crop results from the 2022 FAT series. The 2% target set in the *Strategic Plan 2021-26* is aspirational, but not impossible. Continuous improvement in breeding strategy and tactics, along with adoption of new technologies will be required to achieve the target. Year on year genetic improvement ensures that future varieties have materially better performance than current varieties. Alternative products and markets for sugarcane have been contemplated since the domestication of the crop. Global changes in energy markets and sustainability expectations are driving a new focus as recognised in the Sugar Plus industry roadmap. SRA is uniquely placed to create different types of varieties

and evaluate their productivity in conventional and unconventional situations. Information on the cost and potential production scale of alternative feedstocks will inform commercial planning for new opportunities.

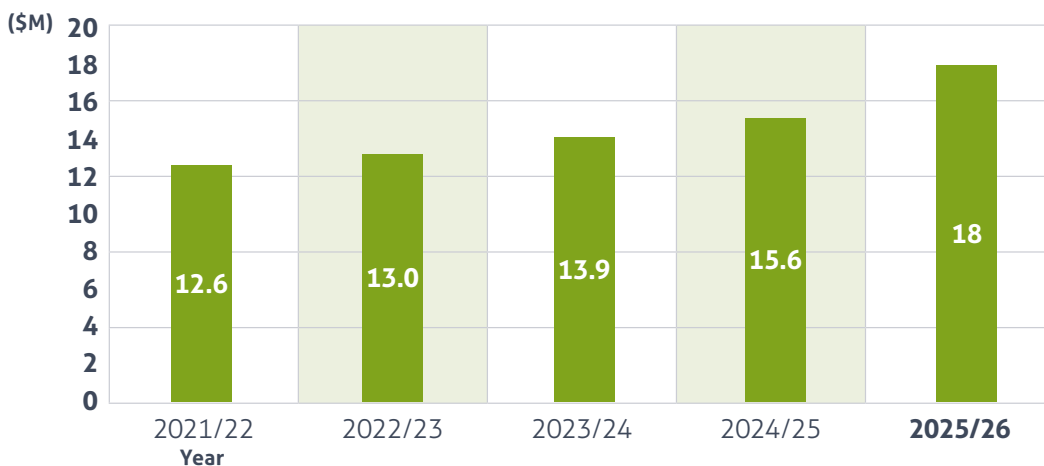
Commercial production of new varieties is a lag indicator of breeding program performance and is a critical step in generating stakeholder value from breeding investment. A key metric is an increasing percentage of new varieties that make up the overall crop. Reliable information on the strengths and weaknesses of new varieties supports faster adoption, provided disease free planting material is available at an acceptable price. SRA has a highly skilled and experienced plant breeding team. Investments are being made to support succession planning and professional development to maintain the people responsible for the pipeline of genetic improvement that will deliver the varieties of the future.

PRIORITIES:

1. New traits, tools, and talent to support step change improvement in plant breeding
2. Creation of new varieties with improved production and processing performance
3. Support correct variety adoption decisions through performance information, grower engagement, and availability of planting material.

INVESTMENT:

Investment Allocation Across Strategic Plan Period (\$M)



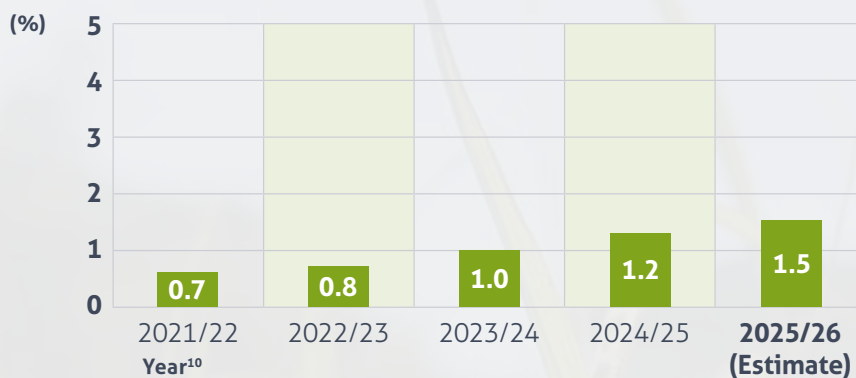
⁹ Values reported relate to the previous season.

¹⁰ Values reported relate to the previous season.

KEY PERFORMANCE INDICATORS

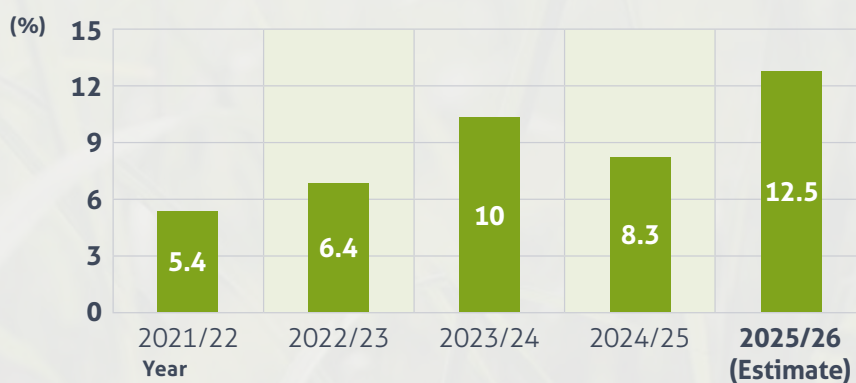
OUTPUTS: Achieve 2% long term genetic gain per annum.

Long Term Genetic Gain Per Annum (%)⁹



ADOPTION: 2% per annum increase in production of new varieties as a proportion of the crop.

New Varieties as % of Total Production



IMPACT: 5% yield improvement from adoption of SRA varieties by 2034.

This measure will be reported on in the Annual Report 2025/26 following the completion of a cost-benefit analysis on the program in 2026.



Varieties – Create the potential

VARIETY DEVELOPMENT PROGRAM

In 2025/26, SRAs Variety Development Program will continue to deliver high-performing sugarcane varieties, supporting key industry targets of 1.5% annual yield gains and 12.5% adoption of new varieties.

NEW VARIETIES WILL BE RELEASED, EACH OFFERING SIGNIFICANT ADVANTAGES OVER EXISTING VARIETIES TO HELP GROWERS INCREASE PRODUCTIVITY. THESE INCLUDE:

SRAW46

(Burdakin) 7% and 6% average increase in TCH and TSH¹¹



SRA47

(Southern) 7% and 13% average increase in TCH and TSH



SRA48

(Herbert) 6% and 3% average increase in TCH and TSH



Additionally, all districts have variously promoted new lines into Max Prop and Accelerated stages, indicating that the breeding pipeline has a good supply of improved clones that are likely to make future releases. Consultation with industry stakeholders about their release will occur in 2026.

The program is supported by a highly skilled team of 12 PhD-qualified staff and 47 technical specialists, covering field support, pathology, tissue culture, statistics, data management, and remote sensing. SRA is also investing in developing the next generation of plant breeders, with three PhDs and two post-doctoral fellow commencing in partnership with the ARC Training Centres for Predictive Breeding and Plant Biosecurity, and via grant funding by the Queensland Department of Primary Industries.

In 2025/26, the program will generate 100,000 new clones from 500 crosses. The program runs a three-stage trialling system with 12,000 plots being planted annually and managing a total of 36,000 plots at any one time. Assays are conducted on seven diseases collecting data from approximately 10,000 plots/pots on up to 1,500 clones. Genotypic data has been collected on approximately

700 clones each year since 2011, totalling over 8,000 individuals. Genomic prediction has been tested for tonnes of cane per Ha (TCH), commercial cane sugar CCS, fibre content, smut, and Pachymetra ratings.

The breeding program plans to enhance annual genotyping capability to 3,000 clones in 2026, ramping up to 10,000 clones by 2028. Genomic parental selection has been conducted on a small scale in the Wilmar breeding program. This will be built upon in the SRA breeding program by adopting computational breeding strategies where millions of crosses are conducted in silico to enable selection of the best 500 to be physically completed. One of the main aims of this annual operating plan will see the initial incorporation of genomic selection strategies.

Over the coming year, the program will develop product profiles to define breeding targets, progressively integrate genomics and remote sensing, and use a digital twin to optimise genetic gain relative to cost. SRA will also complete a review, benchmarking, and implement a five-year plan to drive step-change genetic gains, improve the variety release process, and enhance transparency in reporting performance and impact to stakeholders.

¹¹Tonnes of cane per hectare (TCH) and tonnes of sugar per hectare (TSH) Calculation based on comparison to common varieties such as Q240.





Varieties – Create the potential

PRIORITY 1 NEW TRAITS, TOOLS, AND TALENT TO SUPPORT STEP CHANGE IMPROVEMENT IN PLANT BREEDING

Technology	2017/18	2018/19	2019/20
Genomics Genomic selection software and evaluation methods for plant breeding to accelerate improvements in yield, commercial cane sugar, and other key traits (2015/025, 2017/002 ¹²)			Experimental testing Le
Genomics and phenotyping Platform to enable genomics and physiological trait-augmented breeding approaches in sugarcane by using phenotypic and genotypic data and leveraging technologies developed for sorghum (2024/508 ¹³)			
Predictive breeding Predictive technologies for plant and animal breeding and training programs (2024/002) Sugarcane technologies include: - Clonal selection using drone-captured phenotypes and genomic (Post Doc) - Genomics tools for novel nematode resistance (PhD Scholarship) - Genomic prediction methods (PhD Scholarship)			
Synthetic biology and bioengineering Synthetic plant tissue based on Crop Expansion Encapsulation and Drilling System (CEEDS) TM technology (2022/019; DPB0003)			
Synthetic biology and bioengineering Varieties to enable the development of renewable carbon products from plant biomass (2024/003)			
Synthetic biology and bioengineering Trait identification and selection technologies to breed sugarcane plants for high quality biofuels (2024/510 ¹⁴)			
Marker traits Bioinformatic platform to store sugarcane sequence data and information on marker trait associations (2025/006 ¹⁵)			
Varieties for hostile environments Plant varieties that outperform current commercial types in hostile environments and deliver higher fibre yields without compromising sugar yield (DPF0007)			

PRIORITY 2 CREATION OF NEW VARIETIES WITH IMPROVED PRODUCTION AND PROCESSING PERFORMANCE

Technology	2017/18	2018/19	2019/20
Phenotyping and artificial intelligence Plant characterisation using drone-based hyperspectral imaging and artificial intelligence models to increase the efficiency of predicting stalk sucrose content (2024/017)			
Accelerated breeding Plant characterisation using DNA sequencing to reduce the costs of sugarcane genotyping (2024/019)			

¹²This project was funded by the Department of Primary Industries and Sugar Research Australia.

¹³This project is funded by the Department of Primary Industries.

¹⁴This project is funded by the Department of Primary Industries.

¹⁵This project is funded by the Department of Primary Industries and Sugar Research Australia.

NEW TECHNOLOGIES FOR VARIETY DEVELOPMENT AND DEPLOYMENT

SRA will continue our core work in variety development to breed for innovative, high-performing varieties that consistently underpin the success of the industry's crop production and protection while lowering development costs and shortening cycle-times.

Additionally, we will invest in the following technologies with our partners.

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
led by the University of Queensland (UQ)				Pre-commercial assessment led by SRA		Deployment to Breeding Program led by SRA			
				Experimental testing led by UQ					
				Experimental testing led by the Australian Research Council Training Centre in Predictive Breeding					
			Pre-commercial assessment led by SRA						
				Preliminary technology evaluation led by UQ					
				Preliminary technology evaluation led by UQ					
					Experimental testing led by UQ		Pre-commercial assessment led by SRA		
				Pre-commercial assessment led by SRA					

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
				Pre-commercial assessment led by SRA			Deployment to Breeding Program led by SRA		
				Pre-commercial assessment led by UQ			Deployment to Breeding Program led by SRA		



Agronomy and Farming Systems

– Achieve the potential

RATIONALE:

The plateauing of sugarcane yield is a persistent challenge confronted by the sugarcane industry since the 1980s. The expansion of cane growing into more marginal soils amplifies this and combined with the escalating costs of production, sugarcane farming profitability is a significant and ongoing challenge. Most sugarcane is grown in the catchments of the Great Barrier Reef (GBR), a World Heritage Area listed under the United Nations Educational, Scientific and Cultural Organisation (UNESCO). Minimising offsite environmental impacts, especially dissolved inorganic nitrogen, to the water quality in GBR catchments, remains a focal point. Consequently, over the past decade research on nitrogen management has been prioritised and technical knowledge and best management practises for nitrogen management have improved. It is now crucial to shift focus towards understanding other vital nutrient and soil health aspects that may have been overlooked. Actively addressing soil-related issues, including compaction, excessive tillage, poor soil biology, and imbalanced nutrition is required. While certain constraints related to soil health might not be immediately apparent, they can require substantial time for improvements to manifest.

Farming systems research generally involves a multidisciplinary whole-farm approach to overcoming productivity constraints. The application of general rules of thumb and guiding principles need to change to a site-

specific focus and consider growers' local environments and technology readiness. The opportunity lies in fostering the adoption of research findings, and to address this, research outputs should prioritise practical implementation, avoiding unnecessary complexity or substantial capital investment.

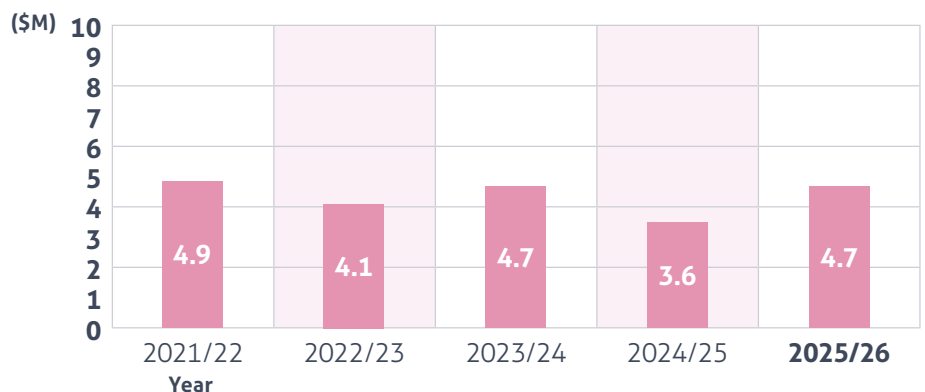
The industry's potential lies in supplying cane biomass for the conversion to emerging industries such as sustainable aviation fuels, bio-based materials and new foods and feed. Globally, evolving sustainability reporting including Environmental, Social, and Governance (ESG) policies poses a significant challenge for Australia, heavily reliant on exports. Other drivers such as emissions reduction targets, are expected to drive demand for data across enterprise, mills, and farms in the coming years. The rising demand for sustainably produced sugar, driven by commitments and sustainable sourcing targets from refiners and end users, intensifies pressure on Australian farmers to adapt to policy changes and investor expectations. To secure market access, insurance, financial support and access to capital, farmers must be prepared to report their sustainability efforts, meeting evolving post-farm gate demands. This program combines multiple components, each designed to make incremental contributions towards the overarching goal of overcoming the yield plateau and realising a reduction in production costs. Farming systems refers to the combination of practices farmers use to achieve production goals.

PRIORITIES:

1. Optimise agronomic inputs
2. Improve sugarcane soil condition
3. Integrate data, technology, and innovation
4. Sustainable production.

INVESTMENT:

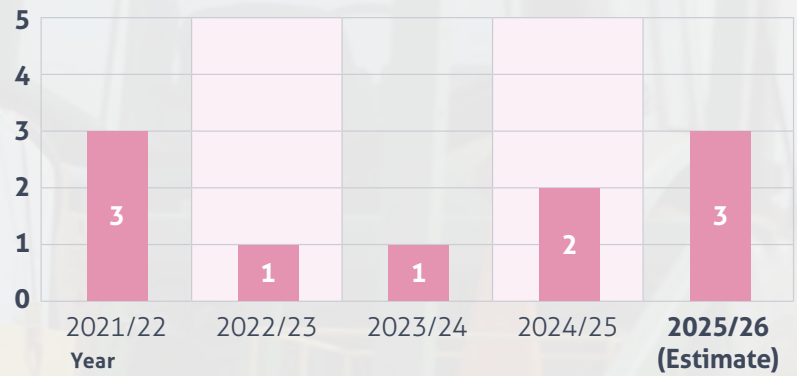
Investment Allocation Across Strategic Plan Period (\$M)



KEY PERFORMANCE INDICATORS

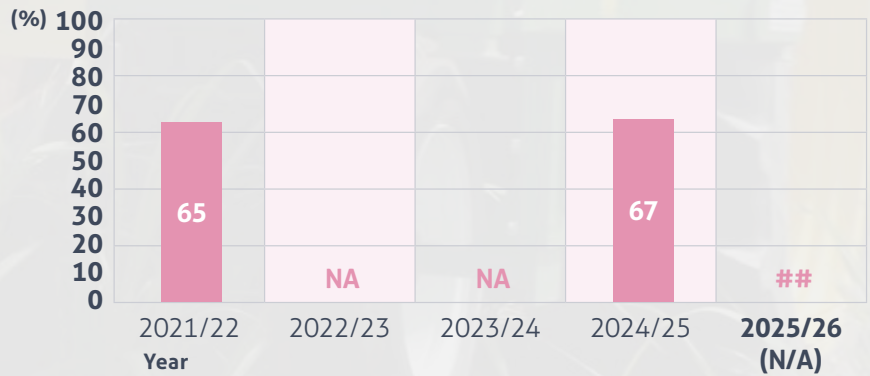
OUTPUTS: New knowledge, technologies and guidelines developed per annum.

Number of Technologies Deployed



ADOPTION: 2% per annum increase in production of new varieties as a proportion of the crop.

% Growers Using SIX EASY STEPS™ Nutrient Management Program



IMPACT: 10% improvement in crop yield or production efficiency gains from adoption of improved agronomic technologies and practices by 2034. 10% improvement in nutrient use efficiency by 2034. Reduce greenhouse gas emissions by 2034.

Reporting on this measure will be provided in future reports.



Agronomy and Farming Systems

– Achieve the potential

PRIORITY 1 OPTIMISE AGRONOMIC INPUTS

Technology	2017/18	2018/19	2019/20
Nutrient management Refined nutrient recommendations for ratoon crops after surface-banded mill mud to optimise yield and guide future updates of the SIX EASY STEPS Nutrient Management Program (2024/014)			
Nutrient management Research on silicon management for crop performance and refinement of the SIX EASY STEPS™ Nutrient Management Program (2024/018)			
Nutrient management Research to guide future tools that improve nitrogen use efficiency in sugarcane by integrating agronomic, economic, and management factors (2023/103) (PhD Scholarship)			
Nutrient management Advanced knowledge about nitrogen loss pathways leading to revised production methods to mitigate nitrogen losses and enhance yield (2024505 ¹⁶)			
Soil health Production method to enhance carbon and nitrogen use efficiency and increase yield through subsoil management, specifically by applying organic amendments (2024512 ¹⁷)			
General SRA's chemistry laboratory provides compositional analyses of soil, plant tissue, water, mill products, and other samples, supporting research, plant breeding, and external partners (PLANLAB)			

PRIORITY 2 IMPROVE SUGARCANE SOIL CONDITION

Technology	2017/18	2018/19	2019/20
Soil health Soil specific phosphorus management practices for sustainable sugarcane production to be integrated into a revised version of the SIX EASY STEPS™ Nutrient Management Program (2022/011, DPB0001)			
Soil health Production method based on the impacts of novel residue management practices on soil capital and trash removal on farming sustainability (2024/010)			
Soil health Lab and field-based spectral methods to conduct a rapid analysis of soil organic matter fractions and potential mineralisation of nitrogen (2024504 ¹⁸)			

PRIORITY 3 INTEGRATE DATA, TECHNOLOGY AND INNOVATION

Technology	2017/18	2018/19	2019/20
Planting Automated in-row planting system prototype (2023/101)			
Harvesting Harvest Mate Auto is a decision support tool that integrates live feedback from harvester monitoring systems to optimise fan and ground speed, reducing cane loss and increasing profitability across green and burnt cane systems (2016/955, 2019/951, 2020/003 ¹⁹ , 2024/016, DPB0004)			
Harvesting Modified design of harvester to reduce dirt (2025/402)			
Crop maturity A portable Near Infrared (NIR) device that measures brix and predicts fibre and moisture in sugarcane, helping assess crop maturity and determine the optimal harvest time for maximum sucrose (DPF0006)			
Crop diagnostic 'Lab-on-a-chip' smartphone technology for real-time plant tissue nutrient analysis including estimates of nitrate and phosphate concentrations in sugarcane tissues (2024511 ²⁰)			
Crop diagnostic Artificial intelligence system to measure billet planting rates and assess billet viability on a seed cane harvester or planter (2024514 ²¹)			

¹⁶ This project is funded by the Department of Primary Industries.

¹⁷ This project is funded by the Department of Primary Industries.

¹⁸ This project is funded by the Department of Primary Industries.

¹⁹ This project was funded by SRA and the Department of Primary Industries.

²⁰ This project is funded by the Department of Primary Industries.

²¹ This project is funded by the Department of Primary Industries.

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
				Pre-commercial assessment led by SRA					Deployment to industry led by SRA
				Experimental testing led by SRA					
			Pre-commercial assessment led by UQ		Deployment to industry led by SRA				
				Pre-commercial assessment led by SRA					Deployment to industry led by SRA
				Pre-commercial assessment led by SRA					Deployment to industry led by SRA
Deployment to industry led by SRA									

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
				Pre-commercial assessment led by SRA					Deployment to industry led by SRA
				Experimental testing led by SRA					
				Pre-commercial assessment led by SRA					

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
				Experimental testing led by the University of Southern Queensland					
				Deployment to industry led by SRA					
				Experimental testing led by SRA					
				Pre-commercial assessment led by SRA				Deployment to industry led by SRA	
				Pre-commercial assessment led by the CRC for High Performing Soils					
				Pre-commercial assessment led by Queensland University of Technology (QUT)					



Agronomy and Farming Systems

– Achieve the potential

PRIORITY 4 SUSTAINABLE PRODUCTION

Technology	2017/18	2018/19	2019/20
Sustainability reporting Sustainability Framework for the Australian sugarcane industry (2021/008 ²²)			
Sustainability reporting Life cycle assessment model to measure the environmental impact of sugarcane production and sugar manufacturing to help improve the sustainability of the Australian industry (2020/001 ²³ , 2024/024)			
Sustainability reporting Quantitative models to estimate the effect of climate change on yield and wet weather interruptions to harvest for milling companies (in-kind project)			
Emissions reduction Gap analysis report on emissions reduction and carbon sequestration in the sugarcane industry (2024/027)			
Emissions reduction Advanced knowledge about the effect of basalt application and soil pH on the fate of carbon acidity/ alkalinity, including the effects on CO2 evasion and carbonate precipitation downstream (2024/102) (PhD Scholarship)			
Emissions reduction Novel technologies to support low-emissions crops and livestock, whole-farm systems, and net-zero value opportunities, supported by training and adoption initiatives (2024/901)			

²² This project is funded by Sugar Research Australia and the Department of Primary Industries.

²³ This project is funded by Sugar Research Australia and the Department of Primary Industries.



2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
	Pre-commercial assessment led by Roth Rural			Deployment to industry led by SRA					
Pre-commercial assessment led by Integrity Ag & Environment				Pre-commercial assessment led by SRA		Deployment to industry led by SRA			
				Deployment to industry led by SRA					
				Deployment to industry led by AgEcon					
						Preliminary technology evaluation led by JCU			
						Preliminary technology evaluation led by the Zero Net Emissions from Agriculture Cooperative Research Centre			





Crop Protection – Achieve the potential

RATIONALE:

There are a wide range of diseases, weeds, and insects, both endemic and exotic, that do and can reduce the yield of sugarcane. Key endemic threats such as canegrubs, soldier fly, pachymetra root rot, ratoon stunting disease, and parasitic nematodes, each lead to estimated losses of between \$25-\$80 million p.a. Similarly, endemic weeds such as perennial grasses and vines collectively cost the industry an estimated \$84 million p.a. Even modest reductions in the yield losses from each of these threats will together lead to substantial benefits to the industry.

High priority exotic threats include several species of moth borer, grassy shoot and white leaf phytoplasmas and their vectors, and viruses such as sugarcane streak mosaic virus and vectors. Many of these are established in Papua New Guinea and Indonesia, where they cause yield losses of up to 70%. With their close proximity to Australia, and the

potential for severe crop losses, several of these are rated as an extreme risk to the Australian sugarcane industry. There are also emerging diseases, pests, and weeds, which are becoming more widespread and causing increasing yield losses to the industry. There is the risk that they become major threats in the future, particularly when coupled with the effects of climate change.

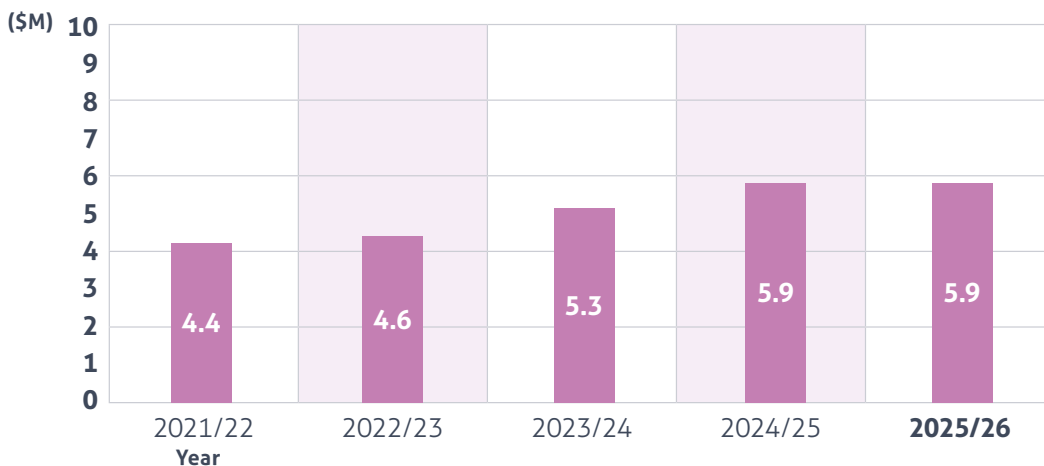
It is imperative we improve our understanding of the nature of the key threats facing the industry, to enable the development of improved control strategies for these threats. Surveillance and diagnostic technologies will ensure that incursions are detected in a timely manner and the spread of emerging threats is monitored, and long-term management strategies that minimise environmental effects and embrace an integrated management approach will ensure the long-term sustainability of the industry.

PRIORITIES:

1. Sustainable management of pests
2. Sustainable management of weeds
3. Sustainable management of pathogens
4. Biosecurity preparedness.

INVESTMENT:

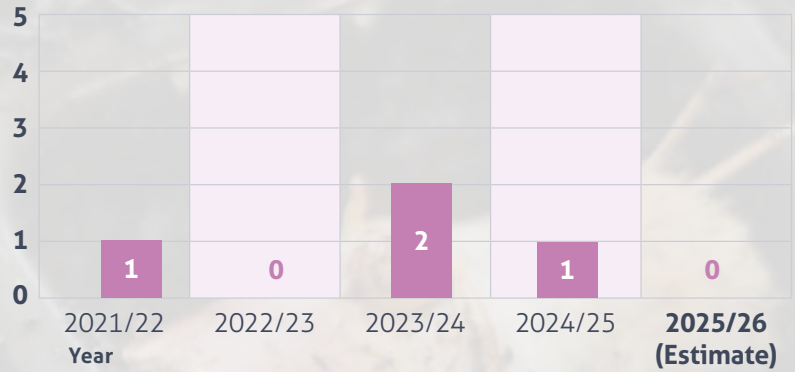
Investment Allocation Across Strategic Plan Period (\$M)



KEY PERFORMANCE INDICATORS

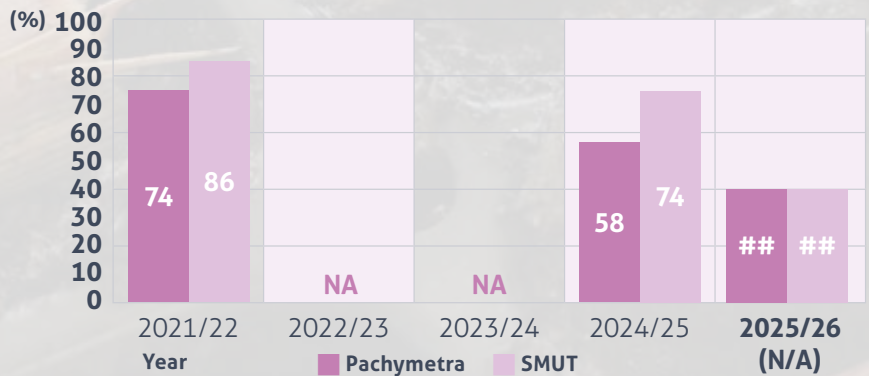
OUTPUTS: New knowledge/ tactics across six priority insects, weed and/ or pathogen targets by 2034.

Number of Technologies Deployed

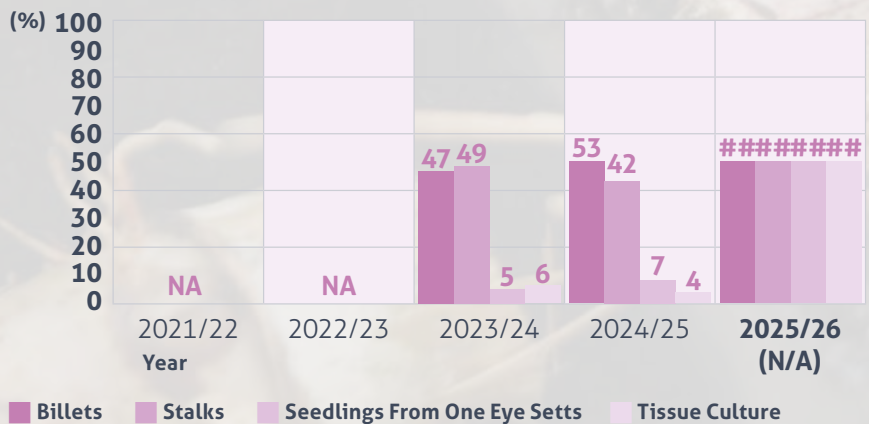


ADOPTION: Increased number of growers adopting improved sustainable technologies and practices to manage.

% Growers who Consider Pachymetra and Smut Resistance Ratings of Varieties Every Year or Almost Every Year



% Growers who Plant Using Clean Seed Every Year or Almost Every Year



IMPACT: 10% improvement in avoided losses due to pathogens, weeds, and insects by 2034.

Reporting on this measure will be provided in future Annual Reports.



Crop Protection – Achieve the potential

PRIORITY 1 SUSTAINABLE MANAGEMENT OF PESTS

Technology	2017/18	2018/19	2019/20
Cane grub Insecticide to replace imidacloprid (2016/003, 2020/004 ²⁴ , 2025/001)			Experimental testing led by SRA
Cane grub Virus biopesticide (2021/402, 2022/016 ²⁵)			
Cane grub A system to collect and measure gases released by plants that attract grubs (2024/402)			
Cane grub Bioactive peptide from wasp venom (2025/401)			
Soldier fly Advanced knowledge on species diversity and distribution of soldier flies, and development of an artificial diet to accelerate the development of new controls (2015/804, 2022/004 ²⁶)			
Soldier fly Virus biopesticide to control soldier flies (2021/402; 2022/016 ²⁷)			
Soldier fly Methods to identify and synthesise the semiochemicals derived from soldier fly and assess their efficacy as a control (2025/403)			
Yellow Canopy Syndrome Support ongoing research on Yellow Canopy Syndrome with collection of samples, insect trapping and monitoring in the Central district (DPC)			

PRIORITY 2 SUSTAINABLE MANAGEMENT OF WEEDS

Technology	2017/18	2018/19	2019/20
General Weed management guidelines for mill mud users for herbicide application (2024/507 ²⁸)			
General Weed management production methods including product combinations, timings, and application methods to control weeds without paraquat (2025/002)			
Hymenachne, Itch grass and Navua sedge Control methods for hymenachne, itch grass and navua sedge (DPF0005)			
Wild sorghum and Itch grass Herbicide trials of wild sorghum and itch grass in the Burdekin district (DPB)			

PRIORITY 3 SUSTAINABLE MANAGEMENT OF PATHOGENS

Technology	2017/18	2018/19	2019/20
Chlorotic streak Resistance screening method for sugarcane chlorotic streak (2022/006)			
Fungal pathogens (inc pineapple sett rots and smut) Research on soilborne fungal pathogens including identification and characterisation of their pathogenicity to develop controls (2024/103) (PhD Scholarship)			
Fungal pathogens (incl. pineapple set rot and smut) Carbon nanodot fungicide (2019/402, 2022/001, 2024/007)			Preliminary evaluation led by University of Queensland
Nematodes Research on the pathogenicity of a newly discovered parasitic nematode (2021/401)			

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Pre-commercial assessment led by SRA								Deployment to industry led by commercial partners	
Preliminary technology evaluation led by UQ		Experimental testing led by UQ							
				Preliminary technology evaluation led by SRA					
				Preliminary technology evaluation led by UQ					
			Experimental testing led by SRA						
Preliminary technology evaluation led by UQ		Experimental testing led by UQ							
				Preliminary technology evaluation led by UQ					
					Preliminary technology evaluation led by SRA				

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
				Pre-commercial assessment led by SRA				Deployment to industry led by SRA	
				Pre-commercial assessment led by SRA					
				Experimental testing led by SRA					
					Experimental testing led by SRA				

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
			Pre-commercial assessment led by SRA			Deployment to Breeding Program led by SRA			
				Preliminary technology evaluation led by Griffith University					
Preliminary technology evaluation led by Griffith University				Experimental testing led by Griffith University					
		Preliminary technology evaluation led by SRA							



Crop Protection – Achieve the potential

PRIORITY 3 SUSTAINABLE MANAGEMENT OF PATHOGENS

Technology	2017/18	2018/19	2019/20
<p>Ratoon stunting disease Novel Near Infrared (NIR) spectroscopy to detect Ratoon Stunting Disease in every batch of cane that enters a mill enabling the disease to be located and controlled (BIOBRSD, 2019/003, 2022/007)</p>	Experimental testing led by SRA		
<p>Ratoon Stunting Disease Undertake research in the Rocky Point area and promote management strategies to growers to avoid production losses (DPS0004)</p>			
<p>Ratoon Stunting Disease Validation of harvester sterilisation unit to control Ratoon Stunting Disease (DPN)</p>			
<p>Ratoon Stunting Disease and soilborne pathogens SRA's subsidised screening services for diseases, pests, and pathogens enables growers to test plant material and soil for pachymetra, nematodes, and RSD and avoid related production losses (BIOSDL, BIOSPLY)</p>			
<p>Rust Research on <i>M. fulva</i>, <i>P. melanocephala</i> and <i>P. kuehni</i> to determine the potential isolate variability within each rust species (2024/304) (PhD Scholarship)</p>			
<p>Soilborne pathogens (incl. Pachymetra) Low-cost screening method for genes associated with Pachymetra root rot resistance and susceptibility (2023/403)</p>			
<p>Soilborne pathogens (incl. Pachymetra root rot) Advanced screening tools to identify genes that control or help resist soil-borne diseases or other stresses (2024/513²⁹)</p>			
<p>Screening for plant breeding Genetic solutions for endemic diseases comprising smut, Pachymetra, red rot, leaf scald, Fiji leaf gall, mosaic, yellow spot and orange rust, by screening breeding germplasm to develop resistant varieties (BIODTLY, BIOPIND, BIOPTLY, BIOPWFD, BUV4700)</p>			

PRIORITY 4 BIOSECURITY PREPAREDNESS

Technology	2017/18	2018/19	2019/20
<p>General Updated Sugarcane Industry Biosecurity Plan (2022/002)</p>			
<p>General Australian Research Council (ARC) Training Centre for Plant Biosecurity led training for emerging researchers to advance Australia's ability to detect, respond to, and manage plant pests and diseases (2024/001)</p>			
<p>Sugarcane Streak Mosaic Virus and White Leaf Disease Research on vectors on potential vectors of White leaf disease in Australia (2024/401)</p>			
<p>Sugarcane Streak Mosaic Virus and White Leaf Disease Research to identify potential vectors of Streak Mosaic Virus in Australia, map their likely distribution, and guide response strategies in the event of an incursion (2024/015)</p>			
<p>Diagnostics New diagnostics for early and accurate diagnosis and rapid response to threats of plant industries including sugarcane (Plant Biosecurity Research Initiative Phase III) (2022/604)</p>			
<p>Diagnostics Platform to analyse high quality genomic data from trusted databases such as the Australian Plant Pest database and AUSPestCheck to inform biosecurity RD&A (2025005)</p>			
<p>Quarantine SRA's quarantine program enables safe import and export of sugarcane varieties, supporting genetic diversity while managing the risk of exotic pests and diseases (BIOQUAR)</p>			

²⁴ This project was funded by Sugar Research Australia and the Department of Primary Industries.

²⁵ This project is funded by the Department of Primary Industries and Sugar Research Australia.

²⁶ This project was funded by the Department of Primary Industries and Sugar Research Australia.

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	
Experimental testing led by SRA			Pre-commercial assessment led by SRA					Deployment to industry led by SRA		
				Pre-commercial assessment led by UQ						
				Pre-commercial assessment led by SRA						
Deployment via Breeding Program led by SRA										
				Preliminary technology evaluation led by the Australian National University (ANU)						
				Preliminary technology evaluation led by SRA						
				Pre-commercial assessment led by SRA					Deployment to Breeding Program led by SRA	
Deployment via Breeding Program led by SRA										
2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	
		Pre-commercial assessment led by Plant Health Australia					Deployment to industry led by SRA			
				Preliminary technology evaluation led by the ARC Training Centre for Plant Biosecurity						
				Preliminary technology evaluation led by SRA						
				Preliminary technology evaluation led by SRA						
			Preliminary technology evaluation led by Hort Innovation Australia							
			Pre-commercial assessment led by New South Wales Department of Primary Industries and Regional Development				Deployment to industry led by biosecurity personnel			
Deployment to Breeding Program led by SRA										

²⁷ This project is funded by the Department of Primary Industries and Sugar Research Australia.

²⁸ This project is funded by the Department of Primary Industries.

²⁹ This project is funded by the Department of Primary Industries.



Milling and Processing

– Deliver the potential

RATIONALE:

Profitability in the milling sector is crucial as it impacts millers’ ability to invest in maintenance, capital, and value-adding. Without adequate investment in these areas, operational efficiency may decline, posing risks to millers’ viability and affecting the growing and harvesting sectors. The key factor impacting mill productivity is maximising the economic realisation of sugar from cane. Evidence suggests the Australian sugar milling sector faces significant challenges including rising costs, diminishing profits, aging equipment, and high turnover of staff. Pressure on maintenance and capital spending, alongside ownership shifts and declining technical performance among millers exacerbates uncertainties.

Prioritising research efforts aimed at reducing costs and energy consumption while producing sugar from cane and increasing revenue from diversified production offers significant potential for productivity gains among millers. Ensuring effective dissemination and application of research findings and efforts to build and maintain a professional workforce within mills are crucial.

Despite ongoing challenges, positive steps towards securing long-term viability have been made, notably through a shift towards participation in the bioeconomy. The emerging opportunities, as outlined in the sugar industry’s 2040

vision Sugar Plus, include converting co-products like bagasse, molasses, sugarcane tops and trash into renewable electricity, biofuels like sustainable aviation fuels, green hydrogen, and biomethane for example. This involves a heightened focus on cogeneration of electricity, including the establishment of large-scale generating plants, and implementing energy efficient measures in associated mills.

Additionally, research into diversifying cane-derived products and a growing interest among millers in this area are evident. Over the last decade, there has been a significant amount of funding in Australia directed towards sugarcane diversification. However, research often occurs separately from the sugarcane industry, limiting its translation into industry benefits.

Queensland research institutions excel globally in this area, with strong academic, corporate, and international collaborations. Current research themes include biochemicals, bioplastics, advanced biofuels (including aviation fuels), and alternative proteins.

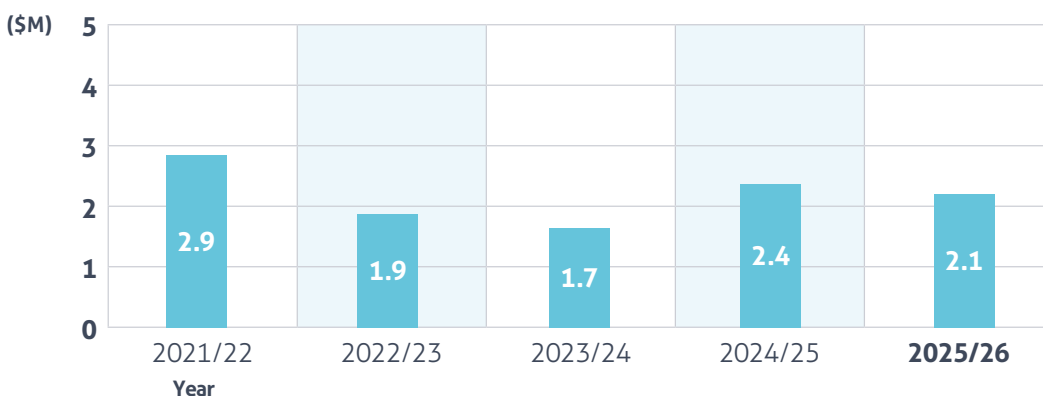
Australia boasts substantial research capabilities, and targeted industry investment can leverage additional funding sources. Aligning industry, policy, and research is crucial for translating research into diversification.

PRIORITIES:

1. Optimised operations for enhanced milling efficiency
2. Highly skilled and professional workforce
3. Opportunities for diversified income.

INVESTMENT:

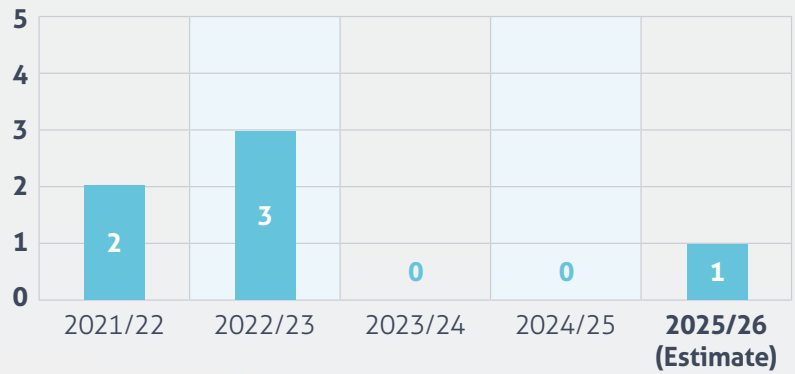
Investment Allocation Across Strategic Plan Period (\$M)



KEY PERFORMANCE INDICATORS

OUTPUTS: New capability and technologies for mills and processors per annum.

Number of Technologies Deployed³¹



ADOPTION:

1. Increased number of mills adopting skills and technologies developed through SRA's research per annum.
2. Increased number of mills trialling and adopting innovations and technologies to diversify income by 2034.

Reporting on this measure will be provided in future Annual Reports.

IMPACT: 25% improvement in milling and processing productivity by 2034.

Reporting on this measure will be provided in future Annual Reports.





Milling and Processing

– Deliver the potential

PRIORITY 1 OPTIMISED OPERATIONS FOR ENHANCED MILLING EFFICIENCY

Technology	2017/18	2018/19	2019/20
Billet length Machine learning system to measure billet length on cane consignments that enter mills (2021/203, 2022/012 ³⁰)			
Clarification Production method for sugarcane juice clarification (2024/101) (PhD Scholarship)			
Evaporators Demonstrate feasibility of hybrid pH control strategies to reduce sucrose losses and control corrosion in sugar factory evaporators (2024/201)			
Mill mud A pilot, small-scale thermo-digester engineered to efficiently digest mill mud (2024/204)			
Cane transport Real-time tracking system for all cane bins in a railway network, showing each bin's location and status (empty or full) to support factory operations for 16 mills operating a rail network (2024/509 ³¹)			
Cane transport Evaluation of an industry-first hybrid locomotive for sugarcane transport (2025/203)			
Hazard reduction Method to reduce factory exposure to lead fumes and dust and welding and cutting fumes (2025201)			
Corrosion-control Cathodic protection technique (2025202)			
Harvesting scheduling Remote-sensing yield prediction technology to inform harvesting scheduling (DPF0003)			
NIR spectroscopy SRA's NIR service offers mills an automated Cane Analysis System to measure brix, pol, fibre, CCS, and more, reducing manual testing. Related research maintains system performance, expands applications, and delivers data to improve farming and milling operations (PLANCAS, NIRDMER)			

PRIORITY 2 HIGHLY SKILLED AND PROFESSIONAL WORKFORCE

Technology	2017/18	2018/19	2019/20
Milling capability Training modules developed for the Australian Sugar Industry Training Learning Management System (2017/013, 2019/006, 2022/014)			Deployment to industry led by the Sugar Research Institute (SRI)
Milling capability Cane train simulator used to train locomotive drivers safely and cost-effectively (2024/005)			
Research capability Eight scholarships and bursaries per year for undergraduate engineering students to build knowledge and experience of milling and to support employment pathways (2022/601)			

³⁰ This project is funded by Sugar Research Australia and the Department of Primary Industries.

³¹ This project is funded by the Department of Primary Industries.

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
	Experimental testing led by the Queensland University of Technology (QUT)		Pre-commercial assessment led by QUT						
				Preliminary technology evaluation led by QUT					
				Pre-commercial assessment led by Sunshine Sugar					
				Experimental testing led by Charles Darwin University					
				Pre-commercial assessment led by QUT			Deployment to industry by milling companies		
					Pre-commercial assessment led by Mackay Sugar		Deployment to industry by milling companies		
					Experimental testing led by QUT				
					Experimental testing led by Sunshine Sugar				
				Pre-commercial assessment led by SRA					
Deployment to industry led by SRA									
2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Deployment to industry led by SRI			Deployment to industry led by SRI						
				Deployment to industry led by SRI					
	Research capability building program led by QUT								



Milling and Processing

– Deliver the potential

PRIORITY 3 OPPORTUNITIES FOR A DIVERSIFIED INCOME

Technology	2017/18	2018/19	2019/20
<p>New opportunities Technologies to transform by-products and residues into new higher value products (2023/020)</p>			
<p>New opportunities Advanced knowledge about the gene/ enzyme in stingless bees that is responsible for efficiently isomerising the sucrose found in nectar to produce high value alternative sugar trehalulose (2022/401)</p>			
<p>New opportunities Funding for the Adding Value to Agriculture Cooperative Research Centre, an initiative focused on converting agricultural by-products into feed, fertiliser, energy, and materials (2025/100)</p>			



2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
				Preliminary technology evaluation led by QUT					
			Preliminary technology evaluation led by UQ						
				Industry resource led by QUT					





Adoption – Reach the potential

RATIONALE:

The current state of adoption in the sugarcane industry reflects a complex landscape with regional differences. Addressing the challenges in adopting current science, practices, techniques, and technologies requires a robust framework. This framework should provide clear and consistent messaging to growers and millers, improve the quality of information dissemination across the industry including knowledge, products, trials, and demonstrations delivered by multiple organisations. It should effectively connect experts to end-users. Adoption activities need to raise the knowledge and awareness of current science and evidence for best management practices, improve the trust and belief in data and recognise and respond to competing business pressures and regionally distinct adoption challenges. Diverse regional needs and the impact of these barriers underscore the necessity of tailored interventions for successful adoption. Working with industry stakeholders and commercial advisors is critical to success.

SRA's District Productivity Plans have been developed through consultation and engagement undertaken through SRA's Industry Services team. Development of the plans has involved participants across the sugar industry supply chain to identify constraints impacting productivity and profitability at the local level. Different sources of data have been used as inputs including grower ideas and

contributions from past strategic workshops held with SRA, ABARES data, mill data, impact assessments and a variety of survey results. The plans highlight specific local issues with proposed solutions and actions to address them and are updated and reviewed annually to drive investment at a local level. Through the development and delivery of District Plans, SRA is actively exploring a regional approach to optimise the impact of research initiatives, accounting for the unique characteristics and capacities of each region and aiming for more effective adoption of sugarcane technologies and practices.

The use of tools such as demonstration plots, workshops, and variety walks has proven effective, enhancing grower confidence, and understanding, while publications like Cane Matters and demonstrations contribute to improved communication and the promotion of the latest research, practices, and technologies. Overall, this program aims to deliver the right information at the right time and in the right form.

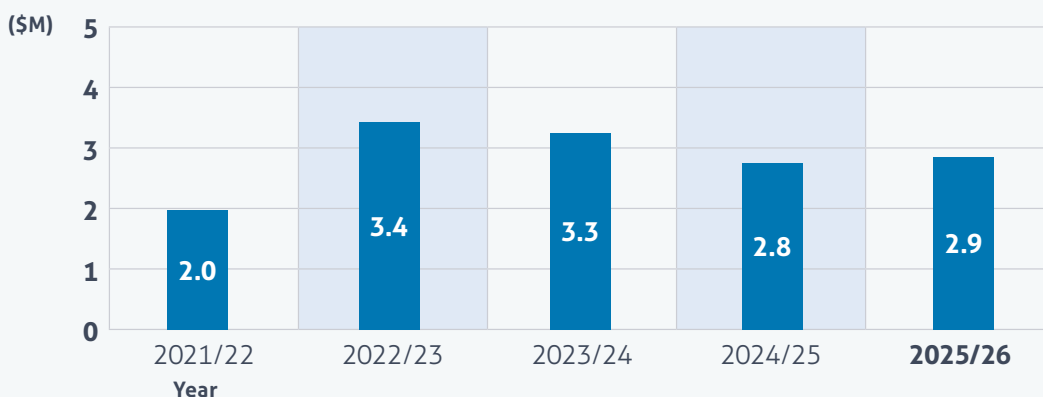
Many investments in the Adoption program are funded by external research partners, aligning with SRA's strategy to attract external investment to fund activities to create solutions to local issues that contribute to improved productivity and profitability. This approach avoids reallocating industry and government investment which is predominately used for other RD&A activities.

PRIORITIES:

1. The right information
2. Regional approaches
3. Industry transformation.

INVESTMENT:

Investment Allocation Across Strategic Plan Period (\$M)

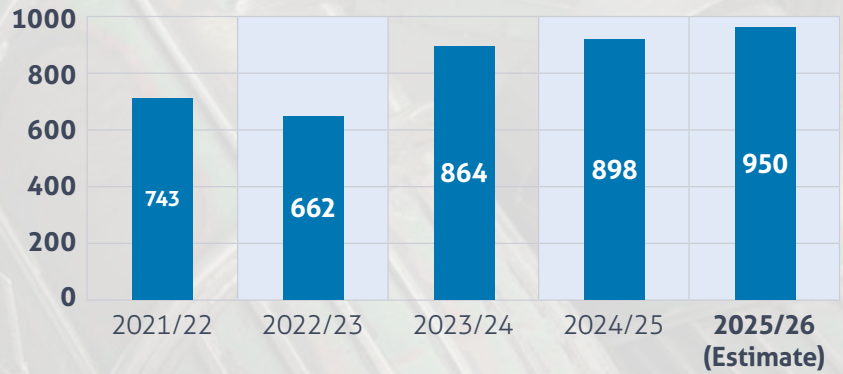




KEY PERFORMANCE INDICATORS

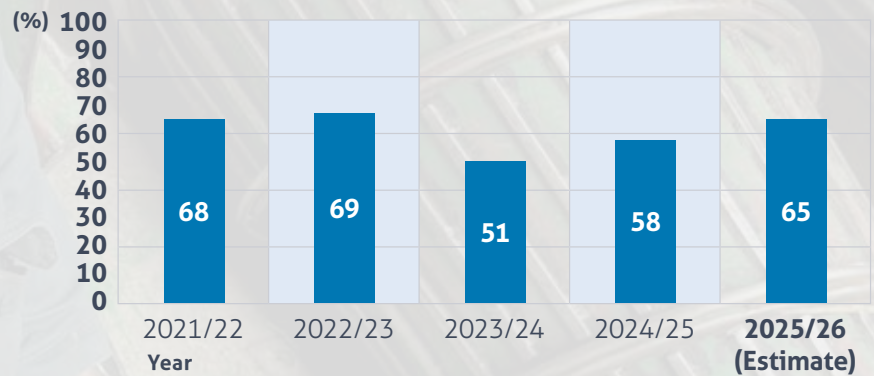
OUTPUTS: Engage with 75% of levy payers per annum by 2034.

Number of Stakeholders Engaged



ADOPTION: >50% of growers and millers adopting knowledge, technologies, and practices from SRA's research by 2034.

% Levy Payers Reporting Adoption of SRA Technologies³²



IMPACT: 25% improvement in grower productivity by 2034.

Reporting on this measure will be provided in future Annual Reports.

³² Responses to SRA event feedback indicating adoption of SRA technologies in the past 12 months or planned implementation.



Adoption – Reach the potential

PRIORITY 1 THE RIGHT INFORMATION

Technology	2017/18	2018/19	2019/20
Events Deliver local workshops and field days to stakeholders on productivity constraints, research-based solutions, and updates on SRA's emerging technologies (DPC0002, DPS0006, DPB0006, DPF0002)			
Varieties Provide Central District growers with tailored variety performance information to support adoption of varieties best suited to local farm conditions (DPC0006)			
Varieties Provide CCS maturity curves for newly released varieties and accelerated clones in the Herbert and South Johnstone areas for optimum harvesting (DPN0002)			
Varieties Promotion of clean seed uptake and new varieties for growers in all districts			
Weeds Promote uptake of the PL@ntNet Plant Identification app to detect weeds (DPF0005)			
Weeds Promotion of online weed learning and development training and tools (DPS)			

PRIORITY 2 REGIONAL APPROACHES

Technology	2017/18	2018/19	2019/20
Irrigation Demonstration of low-cost automated irrigation systems to improve water use efficiency and productivity for growers in the Burdekin District (DPB0005)			
Irrigation Demonstration of low-cost automated irrigation systems to improve water use efficiency and productivity for growers in the Central district (DPC0005)			
Nutrient management Deliver Tully and Murray Fine-Scale Water Quality Monitoring Project to support growers in the Northern district to improve nutrient management practices, with SRA agronomic input to interpret water quality data (2024/803 ³³)			
Nutrient management Deliver an adoption program conducting constraint surveys, implementing the SIX EASY STEPS™ Nutrient Management Program and support with communications in the Northern district (2024/804 ³⁴)			
Nutrient management Deliver the Burnett Mary Agronomy Project including one-on-one extension activities, technical advice, and individual farm reports detailing productivity constraints and nutrient management plans for growers in the Southern district (2023/802 ³⁵)			
Fallow crops Supporting growers to adopt fallow cropping by providing a soybean planter for on-farm trials (DPC0001)			
Varieties Support growers in the Northern district with distribution channels for clean seed (DPF0004)			
Varieties Deliver local workshops to promote uptake of clean seed for growers in the North district (DPN)			
Varieties Establish demonstration sites on heavy cracking clay and sodic soils, and conduct small-scale trials to quantify root system growth angles of different varieties grown in the Central district (DPC)			
Ratoon Stunting Disease Map disease incidence in the Burdekin district and provide growers with guidance to make informed decisions on plant source selection (DPB)			

³³ This project is funded by the Queensland Government's Office of the Great Barrier Reef and World Heritage.

³⁴ This project is funded by the Queensland Department of Environment, Tourism, Science and Innovation.

³⁵ This project is funded by the Queensland Department of Environment, Tourism, Science and Innovation.

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
	Deployment to industry led by SRA								
				Deployment to industry led by SRA					
		Deployment to industry led by SRA							
		Deployment to industry led by SRA							
					Deployment to industry led by SRA				
					Deployment to industry led by SRA				

2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
		Deployment to industry led by SRA							
				Deployment to industry led by SRA					
				Deployment to industry led by Terrain NRM					
		Deployment to industry led by Tully Cane Productivity Services Limited							
		Deployment to industry led by SRA							
				Deployment to industry led by SRA					
				Deployment to industry led by SRA					
					Deployment to industry led by SRA				
				Pre-commercial assessment led by SRA					
					Deployment to industry led by SRA				

INCOME AND EXPENDITURE SUMMARY

In 2025/26, SRA's forecast income is \$36.5 million, driven largely by the statutory industry levy and matching Commonwealth funding. This is up from \$34.7 million in 2024/25 due to increased co-funding from the Queensland Department of Primary Industries.

Expenditure is forecast to be \$42.7 million, up from \$39.6 million in 2024/25. The increase reflects higher investment in research technologies, driven by increased co-funding from the Queensland Department of Primary Industries, through SRA's *10th Anniversary Research Fund Call*.

Of this total, \$33.5 million is allocated to RD&A activities including variety development, research technologies, adoption, industry services, and supporting functions, up from \$30.4 million last year and continuing the upward trend in direct research investment since 2021/22.

\$8.2 million is allocated to corporate and administrative functions, slightly down from \$8.3 million, in line with the

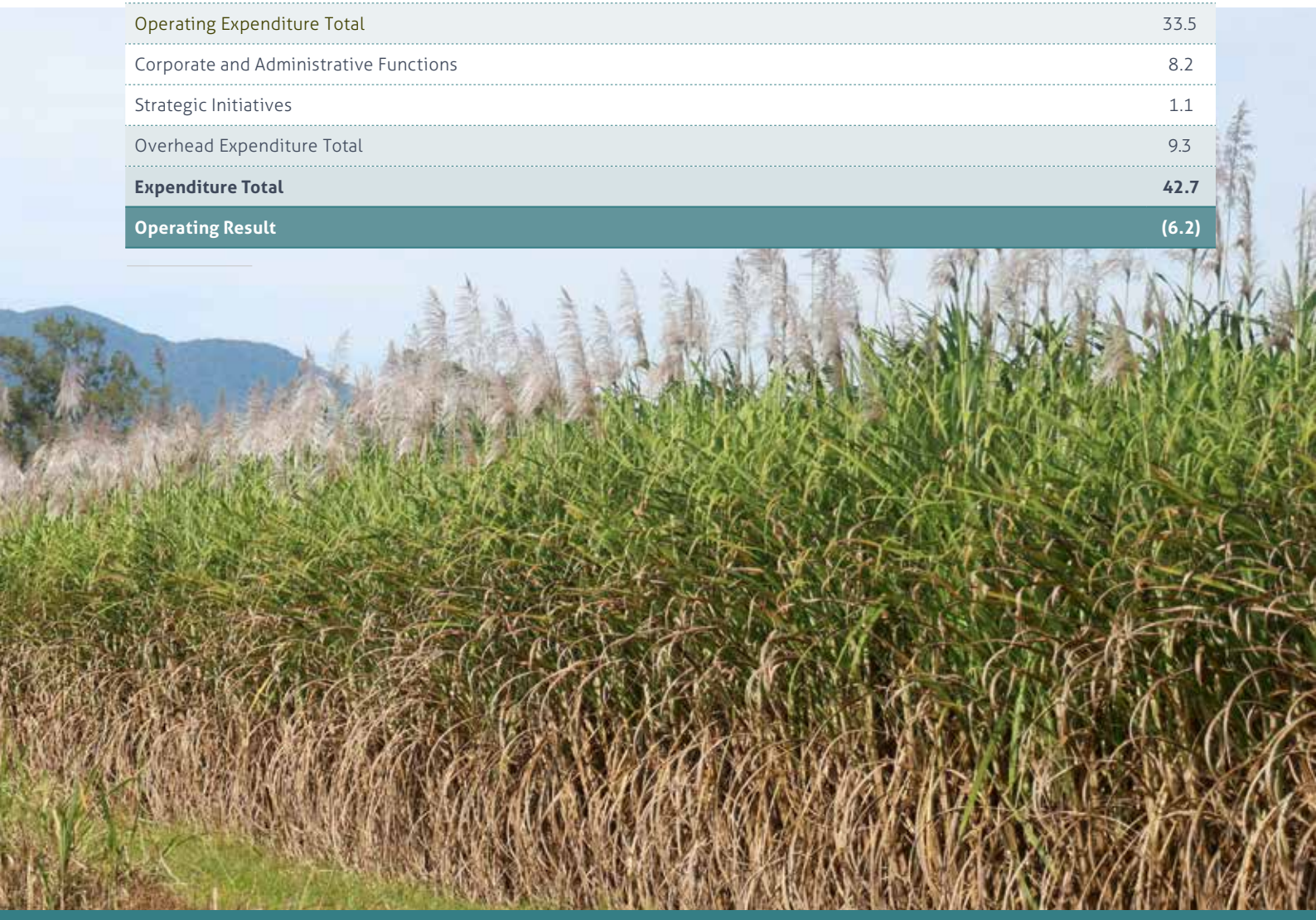
priority to improve long-term financial sustainability. An additional \$1.1 million is budgeted for strategic initiatives, up from \$0.9 million, to complete the implementation of the enterprise resource planning system to drive efficiencies.

The operating result is forecast to be a \$6.2 million deficit, compared with a \$4.9 million deficit in 2024/25. This outcome reflects planned, one-off investments through the *10th Anniversary Research Fund Call* to accelerate new technologies that will deliver long-term productivity, profitability, and sustainability benefits for levy payers and regional communities.

Funding for developing contestable research technologies is forecast to be \$9.1 million, increasing from 20% to 28% of statutory and government funding, continuing the upward trend in investment in competitive, high-performing research.



INCOME		\$M
Industry Levy		20.2
Commonwealth Government		7.7
Queensland Government Department of Primary Industries Income		4.4
Grant Income		1.6
Commercial and Operating Income		1.3
Financial Income		1.4
Other income		0.1
Income Total		36.5
EXPENDITURE		\$M
Variety Development		13.9
Research Technologies		11.6
Adoption Activities including District Productivity Plans		2.8
Industry Services		1.8
Research Support Functions		3.4
Operating Expenditure Total		33.5
Corporate and Administrative Functions		8.2
Strategic Initiatives		1.1
Overhead Expenditure Total		9.3
Expenditure Total		42.7
Operating Result		(6.2)



INVESTMENT ALLOCATION BY PRIORITIES³⁷

ALLOCATION BY SRA STRATEGIC PILLARS (\$M)

ALLOCATION BY SRA STRATEGIC PILLARS (\$M)	2021/22	2022/23	2023/24	2024/25	2025/26
High-Performing Research Portfolio	7.0	4.8	4.2	6.0	9.3
Translation Capability	3.7	4.3	4.9	5.8	6.7
World-Class Sugarcane Varieties	11.8	12.8	14.4	15.2	15.8
Growing Research and Delivery Capacity	4.2	5.1	5.3	3.4	1.7
Foundations	6.9	15.4	9.3	9.2	9.3
Total	33.5	42.2	38.1	39.6	42.7

ALLOCATION BY SRA RESEARCH MISSIONS (\$M)	2021/22	2022/23	2023/24	2024/25	2025/26
Profitable and productive	13.6	14.0	14.2	16.0	17.3
Resilient and enduring	4.4	4.7	5.2	5.8	5.6
Diversified and adaptable	2.2	1.6	1.8	2.6	3.2
Sustainable and efficient	4.8	4.9	5.7	3.8	4.2
Resourced and skilled	1.7	1.7	1.9	2.2	3.2
Corporate, Administrative Function, and Initiatives	6.9	15.4	9.3	9.2	9.3
Total	33.5	42.4	38.1	39.6	42.7



ALLOCATION BY THE PRIORITIES OF THE MINISTER FOR AGRICULTURE, FISHERIES AND FORESTRY (\$M)	2021/22	2022/23	2023/24	2024/25	2025/26
Biosecurity ³⁸	4.8	5.1	5.6	6.2	6.3
Climate Change and Sustainability	3.9	5.4	5.8	4.0	4.4
Trade ³⁹	16.0	14.4	15.2	17.0	18.7
First Nations engagement	0	0	0	0	0
Workforce	2.0	2.2	2.3	3.1	4.1
Corporate, Administrative Function, and Initiatives	6.9	15.4	9.3	9.2	9.3
Total	33.5	42.4	38.1	39.6	42.7

ALLOCATION BY THE NATIONAL AGRICULTURE INNOVATION PRIORITIES (\$M)	2021/22	2022/23	2023/24	2024/25	2025/26
Trusted exporter of premium food and products	16.5	14.9	15.3	17.2	20.0
Preventing and responding to pests and diseases	5.3	5.7	6.3	7.1	7.3
Champion of climate resilience	4.3	6.0	6.6	4.9	5.6
Mature adopter and developer of digital agriculture	0.6	0.4	0.6	1.2	0.4
Corporate, Administrative Function, and Initiatives	6.9	15.4	9.3	9.2	9.3
Total	33.5	42.4	38.1	39.6	42.7

ALLOCATION BY NATIONAL SCIENCE AND RESEARCH PRIORITIES (\$M)	2021/22	2022/23	2023/24	2024/25	2025/26
Advanced manufacturing	2.9	1.9	1.5	2.1	1.7
Energy	0.2	0.0	0.0	0.6	0.3
Environmental change	4.3	6.0	6.4	4.9	5.7
Food	15.6	16.4	17.6	18.9	19.9
Soil and water	3.6	2.6	3.4	3.9	5.8
Transport	0.0	0.0	0.0	0.0	0.0
Cybersecurity	0.0	0.0	0.0	0.0	0.0
Resources	0.0	0.0	0.0	0.0	0.0
Health	0.0	0.0	0.0	0.0	0.0
Corporate, Administrative Function, and Initiatives	6.9	15.4	9.3	9.2	9.3
Total	33.5	42.4	38.1	39.6	42.7

³⁷ In 2024/25, SRA updated its cost allocation methodology in response to stakeholder feedback. Reported figures for operating and corporate and administrative functions may differ from previous reports.

³⁸ Includes activities that contribute to the identification and control of exotic and endemic threats.

³⁹ Includes activities that contribute to productivity benefits, supporting consistent supply and thereby enhancing competitiveness of Australian sugar.



Sugar Research Australia Limited

ABN 16 163 670 068

Brisbane Office Level 10, 300 Queen St, Brisbane QLD 4000 Australia

Postal Address GPO Box 133, Brisbane Qld 4001

T 07 3331 3333

E sra@sugarresearch.com.au

sugarresearch.com.au