Sugar Research Australia

Annual Report 2013–14

Our vision

Delivering valued solutions for a growing Australian sugar industry

Our purpose

Undertaking targeted research, development and extension (RD&E) programs for the sugar industry

Our values

Customer- and outcome-focused with a dedication to industry success

Integrity and transparency across all that we do

Deliver what we promise

Collaborate for quality research outcomes

Respect for our sources of funding and associated obligations

Front cover image: SRA's Plant Breeding Program team plant cane at the Mackay research station, while the Racecourse Mill crushes the year's crop.

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The SRA Board and Neil Fisher, CEO SRA (second right), listen to Glen Park, Principal Technician SRA (right), and Lawrence Di Bella, Manager HCPSL (left), discuss the SRA agronomy trial at Macknade that looks at different methods of farming systems applied to clay soils and multi-clonal farming systems.

Message from the Chairman

It is with great pleasure that I present Sugar Research Australia's 2013–14 Annual Report.

The formation of SRA was a key element of the Sugar RD&E Reform package which was undertaken to streamline and modernise the Australian sugar industry's research landscape. The launch of this industry-owned company (IOC) in August 2013 was a real demonstration of industry working together to build a strong, viable and sustainable research investment platform for grower and miller businesses, and the many regional communities that sugarcane supports.

The year in review

Our first year of operations was one of considerable achievement that saw:

- The declaration of SRA as the Industry Services Body, which entitles SRA to receive the Sugarcane Levy and matching funds from the Commonwealth Government
- The approval of the Statutory Funding Agreement (SFA), which defines the operating principles for the partnership between SRA and the Commonwealth Government
- The appointment of key leadership and management teams, including the SRA Board, the Executive Management Team, the Research Funding Panel (RFP), and the Research Funding Unit (RFU)
- The transfer of the assets and responsibilities of BSES Limited (BSES) and the Sugar Research and Development Corporation (SRDC), and some activities of the Sugar Research Institute (SRI) into SRA
- A large-scale consultation process to understand the issues, challenges and opportunities that impact industry to help define SRA's long-term RD&E direction
- The launch of SRA's *2013/14–2017/18 Strategic Plan* (Strategic Plan)
- Over $14.1 million invested in a contestable RD&E program aligned to industry priorities
- SRA's first project call from which 22 new research projects and one postgraduate scholarship were allocated funding to commence in the 2014–15 financial year
- The largest-ever single investment in any research project – $4 million from reserves were invested in a three-year integrated research program that continues the efforts to identify the causes of, and to develop management strategies for Yellow Canopy Syndrome (YCS)
- A drive to encourage levy payers to become SRA members, and the election of grower and miller delegates in each mill group/mill area
- The first SRA Board meeting held in regional locations – Gordonvale/Mulgrave and the Herbert.

The year ahead

With many governance, structural and procedural activities bedded down, in our second year of operation SRA will focus on three main challenges:

1. Identifying YCS

YCS exists in cane-growing communities that produce over 80 per cent of Australia's sugar. It is a complex condition and understanding it requires a comprehensive and robust research approach.

The independent Scientific Reference Panel (SRP) – appointed as part of the initial one-year research project 'Solving the Sugarcane Yellow Canopy Syndrome' – will continue to closely monitor the investment program over the three-year period to ensure that the research effort remains focused and outcomes are communicated to members and levy payers.

2. Maximising adoption

Ensuring that research findings are broadly adopted by industry is fundamental to obtaining the full value of the financial investment SRA makes in R&D. It has become apparent that although the Professional Extension and Communication (PEC) Unit – which was established to communicate R&D outcomes – has delivered on its original mandate, their services have not fully met industry's needs.

In response, consultation with industry will continue to identify how SRA can work with others in the extension space to enhance adoption rates and ultimately improve the production, profitability and sustainability of our members' growing and milling businesses.

As we develop a new extension and adoption model, SRA must also develop an understanding with industry, that industry too must be involved in driving greater adoption uptake.

3. Improved germplasm and new planting technologies

Significant improvements in production can be made through the development of new varieties with a drastic change in a current trait or a novel trait, and rapid deployment of the material.

The SRA Board will consider how a range of activities in this field – including the introgression of wild germplasm, the use of molecular markers to improve the accuracy of selection, and new bulking and planting technologies – can deliver varieties that are well suited to our diverse growing conditions. These technologies will enable varieties to be delivered, to market, faster.

As an IOC, SRA continually needs to respond to industry priorities with strong science. It is, therefore, good practice to keep in regular close contact with our members as the issues, challenges and opportunities facing them change.

Next year the SRA Board will continue its regional meetings and another smaller-scale consultation program will take place to ensure that the priorities identified in SRA's five-year Strategic Plan remain relevant.

The future for RD&E in sugarcane is exciting. I look forward to working with you to ensure that every dollar counts, and is invested wisely to produce knowledge and practices that can be adopted on-farm and in the mill.

Paul Wright, AM

Paul Wright, AM, Chairman.

These successes were made possible by the following individuals and groups who I thank:

CANEGROWERS Australia, Australian Sugar Milling Council (ASMC), Australian Sugar Industry Alliance (ASA), Australian Cane Farmers Association (ACFA), the Commonwealth Department of Agriculture (DA), the Queensland Government Department of Agriculture, Fisheries of Forestry (DAFF) and other regional grower bodies:

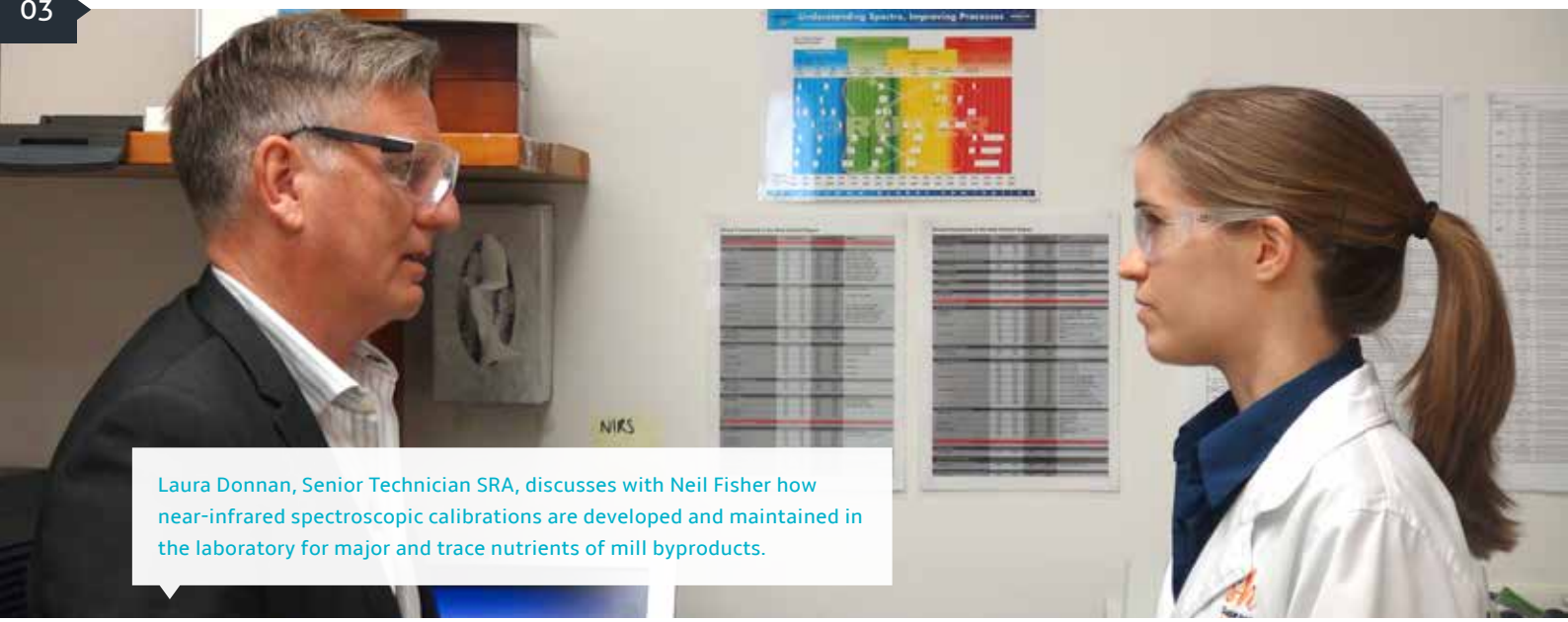
Their considerable efforts and support drove the realisation of the Sugar RD&E Reform package.

The SRA Board:

Their time, effort and dedication have helped to drive SRA's strategic direction and establish a sound level of governance. The Board has also invested considerable time forming strong working relationships with government, at both the state and federal levels. These relationships are essential for building government's confidence that SRA is delivering valued solutions to its members and levy payers, while contributing to a stronger and sustainable agricultural industry for Queensland and Australia.

The SRA team:

Faced with changing research priorities and, for many staff, the need to compete for research funding for the first time, the SRA team showed commendable commitment to their research activities and SRA during a challenging time.



Laura Donnan, Senior Technician SRA, discusses with Neil Fisher how near-infrared spectroscopic calibrations are developed and maintained in the laboratory for major and trace nutrients of mill byproducts.

Message from the Chief Executive Officer

In our first year, SRA achieved a number of successes in an environment of constant change and uncertainty.

I thank our members and levy payers for supporting the launch of their new IOC and engaging with SRA during such a tumultuous time.

Some regions within our industry celebrated reasonable production, whereas others were impacted by adverse weather conditions – the Southern region had rainfall levels of less than 60 per cent of the long-term mean, and the Northern region endured the impact of Cyclone Ita.

To confound matters, the majority of industry continued to operate under the uncertainty brought by YCS, which significantly impacted on individuals and reduced yields across the affected regions.

The combination of these environmental factors and other external issues, including water and electricity price increases, meant our members and levy payers faced a challenging year.

Over 50 per cent of grower levy payers and all milling groups joined up to become SRA members and are now directly involved in driving the strategic direction of our company. Our members are ably supported by our grower and miller delegates with representatives in each mill area or mill group, with the exception of the Tablelands.

Delegates are our go-to people on a range of SRA-related matters and they connect us directly to our members. This connection is critical in allowing us to better deliver targeted RD&E services to make a difference on the farm and in the mill.

The cultural shift required to transition to a client-focused RD&E organisation and investment manager that delivers real value to its members was driven by a number of new initiatives and programs, and is progressing.

A timely, large-scale consultation program that ran from Ballina to Gordonvale invited the entire industry to put forward their perspective on the opportunities, challenges and RD&E priorities that we should pursue during the next five years.

This exercise highlighted eight key focus areas (KFAs) that require strategic investment. Research to accelerate the transfer of knowledge into practice and seeking efficiencies through stronger collaborations with industry and other research organisations were also high on our members' agenda.

However, in this new era of transparency, our members' and the broader industry's involvement no longer stops at identifying priorities that require RD&E solutions. It now also extends to being meaningfully involved in the selection of individual programs that will receive funding.

Neil Fisher, Chief Executive Officer.

The RFP, formed in July 2013, is responsible for maximising the investment return from our contestable funding program.

Appointed by the SRA Board, the panel is responsible for ensuring that only those projects that are feasible, have a high likelihood of success and produce real research outcomes, are invested in.

The RFP has been supported by the Production Research Advisory Committee (PRAC) and the Milling Research Advisory Committee (MRAC), who played a key role in prioritising and advising on the recommendation for potential new research investments across the growing and milling sectors respectively.

As well as managing our members' and stakeholders' investment wisely, essential to cementing a solid future for industry is the creation of a network of innovative young leaders across research, growing and milling.

We pushed this agenda by supporting the Next Gen Program as well as developing our own Young Participants Forum, the members of which were invited to put forward their view of industry priorities during the consultation program.

We also continued to nurture the future thought leaders of our industry by investing in capability through scholarships, travel and workshop funding, and soon will launch an initiative to fund early- and mid-career research awards.

People are at the core of our company – the strong work ethic of our staff and their commitment to delivering excellent science with identified outcomes has been essential to SRA's progress this year. They have worked through uncertain times and I thank them for their efforts and patience.

With the Strategic Plan and Annual Operational Plan now in place, the SRA team know what needs to be achieved in our second year of operation.

I also thank the Commonwealth Department of Agriculture and DAFF for their continued involvement, interest and commitment to SRA and, obviously, their financial support.

Our new Memorandum of Understanding with DAFF will commit funds specifically to projects that address industry priorities and the broader agricultural goals of the Queensland Government, consistent with our Strategic Plan.

In the coming year, we will continue to focus on the eight KFAs outlined in our Strategic Plan and will deliver good science to produce research findings and practical advice that can be adopted by our members.

In addition, we will use the informative data that was gathered about YCS this year to narrow our research focus to target the possible cause or causes of the condition and how these might be addressed.

Finally, I thank our Chairman and the SRA Board for their guidance and support during a challenging 12 months.

There is a lot of hard work ahead for SRA, and I look forward to building on the good work that the SRA team delivered this year.

Neil Fisher

Chief Executive Officer

Your SRA at work in **2013–14**

Dr Mike Cox, Manager of SRA's Plant Breeding Program, measures the diameter of a cane stalk using electronic vernier calipers, as part of the Plant Breeder's Rights description of new varieties.

Paul Schembri, Chairman of CANEGROWERS (left), Paul Wright, Chairman of SRA (centre), and Quinton Hildebrand, Chairman of the Australian Sugar Milling Council (right), attend company launch activities at the SRA Mackay research centre on 5 August 2013.

The year in review

May 2013

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INCORPORATION OF SRA

8

APPOINTMENT OF THE SRA DIRECTORS

14

APPOINTMENT OF THE CHIEF EXECUTIVE OFFICER (CEO)

July 2013

10

APPOINTMENT OF THE RESEARCH FUNDING PANEL BY THE SRA BOARD

August 2013

5

BSES EMPLOYEES TRANSITIONED TO SRA

5

SRA OFFICIALLY LAUNCHED AND OPERATIONS COMMENCED

5

SRA DECLARED AS THE INDUSTRY SERVICES BODY FOR THE AUSTRALIAN SUGAR INDUSTRY

19

APPOINTMENT OF THE RESEARCH FUNDING UNIT EMPLOYEES

September 2013

3

SCIENTIFIC RESEARCH PANEL APPOINTED TO SUPPORT FINDING THE CAUSE OF YCS

October 2013

9

NEW INDUSTRY WORKING GROUP FORMED TO EVALUATE THE PRIORITISATION OF SUGARCANE CHARACTERISTICS

November 2013

11

SUGARCANE LEVY PAYERS INVITED TO BECOME MEMBERS OF SRA

15

FIRST CONTESTABLE ROUND OF FUNDING FOR RESEARCH PROJECTS AND POST-GRADUATE SCHOLARSHIPS LAUNCHED

18

STRATEGIC PLANNING CONSULTATION PROCESS KICKED-OFF WITH INDUSTRY

November 2013

26

INTERIM STRATEGIC PLAN APPROVED BY THE MINISTER FOR AGRICULTURE, THE HON. BARNABY JOYCE MP

March 2014

31

SRA MEMBERS INVITED TO NOMINATE DELEGATES FOR THEIR MILL AREA/MILL GROUP

April 2014

13

AN ADDITIONAL $4 MILLION FROM COMPANY RESERVES INVESTED TO INVESTIGATE YCS

17

2013/14–2017/18 STRATEGIC PLAN APPROVED BY THE COMMONWEALTH DEPARTMENT OF AGRICULTURE ON BEHALF OF THE MINISTER FOR AGRICULTURE, THE HON. BARNABY JOYCE MP

29

STRATEGIC PLAN LAUNCHED

May 2014

8

22 NEW RESEARCH PROJECTS AND ONE POSTGRADUATE SCHOLARSHIP ALLOCATED FUNDING TO COMMENCE FROM 1 JULY 2014

22

INAUGURAL MEETING OF THE SRA DELEGATES IN BRISBANE

June 2014

30

ANNUAL OPERATIONAL PLAN SUBMITTED TO THE COMMONWEALTH DEPARTMENT OF AGRICULTURE

SRA working with the NSW sugar industry in Ballina, in the first of nine regional workshops held as part of the strategic planning consultation process.

Driving the Australian sugar industry RD&E agenda

To guide SRA during its establishment and transition period in the first few months of operation, an Interim Strategic Plan and Interim Annual Operational Plan were put in place.

These interim plans were viewed as short-term transitional plans based on the portfolio of projects and activities that we inherited from SRDC. The purpose of these plans was to provide general guidance to SRA until a comprehensive and consultative planning process could be completed and a longer-term strategic plan developed.

Consulting with industry

During November 2013 through to January 2014, SRA engaged with industry, government and the research community to guide the development of our inaugural five-year Strategic Plan.

In addition, we worked closely with industry representative bodies and government stakeholders to ensure our Strategic Plan addressed the principles, strategies and priorities set out in the following policy and priority statements:

- *Queensland's Agriculture Strategy*, Department of Agriculture, Fisheries and Forestry, 2013
- *Strategic Research Priorities*, Australian Government, 2013
- *Statement on Priorities for Research 2011–2014*, Australian Sugar Industry Alliance, 2011
- *National Sugarcane Industry RD&E Strategy*, 2010
- *National Primary Industries RD&E Framework and Guidelines*, Department of Agriculture, 2009
- *Rural Research and Development Priorities*, Department of Agriculture, 2007.

This participatory planning process provided SRA with a thorough understanding of the issues and challenges facing our members and the priority RD&E areas that industry and government wanted us to focus on in the coming years. These priority areas of focus form the crux of our *2013/14–2017/18 Strategic Plan* and underpin all that we do.

A matrix detailing the alignment between SRA's KFAs (and associated activities) and the key industry and government priorities is provided in Appendix D of this report.

Delivering on our strategic direction

The Strategic Plan centres on eight KFAs that will guide our RD&E investment over the next five years to enable SRA to contribute to these broader industry outcomes:

1. Improving production efficiency, increasing profitability and ensuring sustainability
2. Accelerating the transfer of research and development into practice
3. Forging stronger relationships and collaborations with industry and RD&E organisations.

Our business processes have been aligned with the eight KFAs. We also developed our first Annual Operational Plan this year.

Plans for the next 12 months

Throughout the life of the Strategic Plan, we will actively engage and consult with our members, industry representative bodies and wider stakeholders annually. This will ensure that our RD&E activities and investment portfolio remain relevant, and responsive to new and emerging issues.

We will also establish a Monitoring and Evaluation Framework that will enable us to assess, monitor and report on the progress of delivering on our Strategic Plan. Once it is established, we will provide industry with an annual Performance Scorecard.

Tetracam multispectral sensor flown on an airship as part of a University of New England-led project to develop remote sensing as an industry-wide, yield-forecasting, nitrogen-mapping and research aid. Trial sites used in the project were managed by SRA and the University of Queensland.

Investment overview

Sources of revenue

The revenue that supports our research investment program comes primarily from the Sugarcane Levy – 70 cents per tonne of cane (with grower and milling businesses each contributing 35 cents per tonne of cane), matching Commonwealth Government R&D funds and Queensland Government grant funding through DAFF.

Together, these revenue sources permitted a contestable research investment of $14.1M during the 2013–14 financial year.

The Commonwealth and Queensland governments play an important role in the provision of significant funding towards RD&E.

Their investments – using public funds – help to deliver economic, social and environmental benefits to the general community.

In particular, the investment by the Queensland Government provides strong support in areas of research that align with the four 'Pathways to Growth' identified within *Queensland's Agriculture Strategy* that has a vision to double agricultural production by 2040.

Contestable funding program

The SRA research investment process has been built to provide a competitive, independent and unbiased assessment of research project submissions. An increased focus on industry benefit and competitiveness is a key driver of the process that is overseen by the independent, skills-based RFP.

The RFP, appointed in July 2013, is a committee of the SRA Board that operates a transparent, contestable funding process designed to select a research portfolio that addresses industry issues as well as the national RD&E priorities.

SRA's investment in research is managed day to day by the RFU, which was appointed in August 2013.

This year we conducted our first research project call. Project applications were received and assessed using a two-stage process which was led by the RFP. This process also involved valuable input from PRAC and MRAC.

The result of our first project call was the acceptance of 22 new research projects that commenced from 1 July 2014, which represents an investment of $4.38M in 2014–15.

Development program

Each year major investment is made in development programs that are carried out by our own team of plant breeders, entomologists and plant pathologists.

This work – conducted at our nine research stations and on commercial farms – underpins the profitability and sustainability of industry, and supports the analytical requirements of our multidisciplinary teams and collaborative research projects. This year our work included:

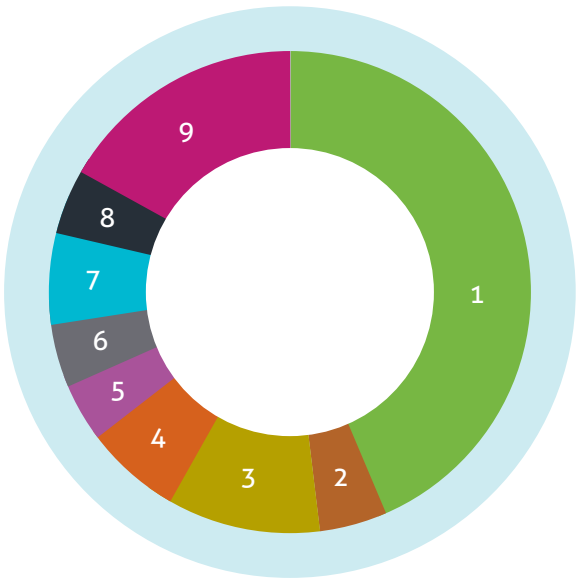
- Disease screening trials for Fiji leaf gall, sugarcane smut, pachymetra root rot, leaf scald, red root rot and sugarcane mosaic virus
- Over 1000 crosses between Australian and foreign parents
- The following trials in our plant breeding program.

Trial type	Trials planted	Trials harvested
PAT (Progeny Assessment Trial)	4–100,000 seedlings	6
CAT (Clonal Assessment Trial)	4–10,000 seedlings	6
FAT (Final Assessment Trial)	22–800 seedlings	66

Zonal ripping and rotary hoeing of preformed beds is carried out as part of a grower group project that aims to improve internal soil drainage and yield on heavy clay soils in the Herbert region.

Research highlights

SRA's investments in 2013–14 achieved significant outputs on the priorities identified by our members, industry representative bodies and wider stakeholders.



The pie chart shows the 2013-14 investment of $28.6M over the eight KFAs.

Where we invested in 2013–14

Investment area	%
Key Focus Area 1 Optimally adapted varieties, plant breeding and release	43
Key Focus Area 2 Soil health and nutrient management	4
Key Focus Area 3 Pest, disease and weed management	12
Key Focus Area 4 Farming systems and production management	7
Key Focus Area 5 Milling efficiency and technology	4
Key Focus Area 6 Product diversification and value addition	4
Key Focus Area 7 Knowledge and technology transfer and adoption	7
Key Focus Area 8 Capability development, attraction and retention	4
9. Supporting activities	15

KFA1: Optimally adapted varieties, plant breeding and release

Objectives

- World-class variety development.
- Enhanced variety breeding, selection and release.
- Collaborative, interdisciplinary and systems approach to RD&E.

Target outcomes

- Comprehensive and efficient variety breeding, selection and release programs responding to yield expectations, environmental constraints, resource scarcity and regional preferences.
- Faster varietal adoption using advanced methods for bulking, distribution and planting.

2013–14 highlights

- A review began into the economic weights for traits used in the variety selection program to ensure that they reflect current industry costs.
- Tissue-culture planting material of newer varieties continued to be popular with over 112,000 plants ordered, with the Isis, Herbert, Tablelands and Mossman industries placing orders for the first time.
- New varieties Q226$^{\phi}$, Q250$^{\phi}$, Q252$^{\phi}$ and Q253$^{\phi}$ were approved by the Herbert Variety Adoption Committee (VAC) for release.
- Germplasm available to the crossing program was expanded with 224 new introgression crosses made with wild clones, and 60 clones derived from introgression crosses propagated for planting in selection trials.
- New variety exchange agreements were signed with the Sri Lankan Sugarcane Research Institute, RIDESA (Brazil) and the National Agriculture and Food Organization (Japan).
- The ranking of clone performance at low nitrogen (N) supply was established; this knowledge could help to reduce input costs and nitrogen losses to the environment.
- Experiments were done to increase the understanding of sugarcane reproduction in commercial fields and determine whether sugarcane seed exhibits dormancy.
- A model was developed to estimate the economic impact of changing cane supply characteristics on regional capacity to produce electricity or biofuels for different product prices.
- An experimental system was designed and built to decouple indirect water-related effects of CO_2 on sugarcane and test for the presence of any direct CO_2 growth responses.
- The most comprehensive set of compositional data for sugarcane – with ranges for proximates, sugars and forage values – was successfully produced from the analysis of 239 sugarcane samples.
- Support continued for the Australian component of an international consortium that is sequencing the sugarcane genome.

KFA2: Soil health and nutrient management

Objectives

- Understood and improved soil health issues.
- Understood impacts of on-farm practices on water quality.
- Improved methods and tools to enable, or improve, cane production on poor-performing or marginal soils.

Target outcomes

- Soil health is improved with a resulting positive impact on environment and yield growth.
- Improved reputation and relationship between industry and environmental groups.

2013–14 highlights

- A statistical model, based purely on climate attributes that explains 40 per cent of the variation in Tully sugarcane yields, was developed.
- Solid progress continued to be made on determining the impact of climatic conditions on N-use efficiency for a specific soil type in the Wet Tropics through small plot N rate field trials and crop modelling.
- Laboratory and field methods were developed for measuring quantities of soil humic substances using absorbance of ultraviolet light. With further testing and validation, they could allow growers to easily test the merits of soil amendments and management techniques as they affect soil health on their farms.
- Strong outputs were achieved from grower group projects that targeted the better management of soil health and the environmental benefits in reduced run-off of nutrients associated with the appropriate use of mill byproducts, microbial ameliorants, composts and biochar to build soil carbon levels.

KFA3: Pest, disease and weed management

Objectives

- Enhanced biosecurity capability.
- Minimised economic and environmental impacts of pests, diseases and weeds through targeted research.

Target outcomes

- A comprehensive RD&E program that addresses existing and emerging pests, diseases and weeds, allowing sugarcane growers to manage their crops efficiently with minimal environmental impacts.
- An enhanced industry capacity to deal with incursions of exotic pests, diseases and weeds.

2013–14 highlights

- With the introduction of the new Queensland *Biosecurity Act 2014*, a 'discussion starter' paper was prepared on the threat, management and biosecurity needs for a range of diseases to assist industry to develop new ways to manage Queensland's biosecurity.
- Object-based image analysis and high-spatial-resolution satellite imagery was able to identify canegrub infestations in 128 fields across five mill areas, with 75 per cent accuracy.
- Introgression clones were screened for resistance to root knot nematode, root lesion nematode, pachymetra root rot and smut, for incorporation into the SRA Plant Breeding Program.
- As a direct result of increased surveys by productivity services groups, 3.8 times more nematode samples and 1.8 times more pachymetra root rot samples were processed than in the previous year.
- In Papua New Guinea, plants were able to be infected with downy mildew, enabling the development of a rapid method for screening Australian varieties for resistance to this disease.
- A high-rise sprayer, the Mantis, developed by a grower group near Innisfail, was designed and built to operate on the steep slopes that are common in that area.
- Trials of farming systems and sugarcane varieties against nematodes found that reduced-tillage techniques suppressed root knot nematode populations in ratoons.
- From research into the precision spraying of weeds, optimum weed-control strategies and guidelines using the Weedseeker® sprayer were established.
- Strategies were evaluated and management booklets were prepared on managing feral pigs.

KFA4: Farming systems and production management

Objectives

- Research leading to the optimal use of inputs on-farm.
- Research on planting technologies, ratoonability, break-crop and fallow practices to optimise yields.
- Practical application of the value-chain model to enhance grower, harvester and miller interfaces and improved adoption of harvesting best-practices.

Target outcomes

- Growers and harvesters benefit from the ongoing research in productivity improvement, production management and agronomical techniques.
- Developed technologies and management practices that enhance productivity and demonstrate a high rate of return on investment.

2013–14 highlights

- An understanding of the benefits of the different lengths of fallow periods was developed from trials that showed that a sugarcane plant crop, following an 18-month fallow, which contained three cash crops, produced 20 per cent more tonnes cane per hectare (TCH) than cane planted following a short five-month fallow.
- In the Herbert region, a significant response to applied N in both the first and second ratoon crops was found, indicating little carryover of N from the legume fallow (grown prior to the plant crop) to the ratoons.
- More is known about farming systems, including that:
  - > About 10 per cent of the total N applied in mill mud is recovered in the above-ground sugarcane biomass in the initial 120–142 day period. It is estimated that a further 25 per cent of the total N applied in the mill byproducts would be available for crop uptake in remainder of the first season.
  - > Nitrous oxide (N2O) production in this soil is mainly driven by other factors such as rainfall rather than soil mineral N concentrations.
  - > Coated fertilisers may potentially allow reduced N application rates without causing N deficiency to the crop.
  - > High trash levels reduced the final number of emerged vine seedlings by 66 per cent on average compared to low level of trash and bare soil.
- The initial phase of the process to multiply sugarcane material through tissue culture for the production of clean seed cane has been improved more than a hundred fold. With further development, this process should significantly reduce the cost of production of tissue culture seedlings.
- Yield predictions were completed for six growing regions based on the analysis of satellite imagery.
- Research is underway to develop targeted seamless weather/climate forecasting systems for critical early-season harvest periods and better nutrient management.

KFA5: Milling efficiency and technology

Objectives

- Review of logistics management to reduce operational costs and improve mill capacity utilisation.
- New or improved processes, technology and/or infrastructure to increase mill processing efficiency.
- Possible solutions to address quality issues.

Target outcomes

- Optimised mill transport and logistics.
- Mill capacity and efficiency is optimised through improved processes, technology and value-chain coordination and collaboration.

2013–14 highlights

- An improved understanding was developed of the properties of soils that can impair coagulation and flocculation behaviour during clarification.
- Significant progress was made on developing a suite of process models that will be linked to produce a 'whole-of-factory' model, to simulate the operation of a sugar mill.
- We have a better understanding of the performance of vacuum belt press filters compared with more-traditional rotary drum filters for mud filtration.
- From improved models we know more about the issues with the long-term storage of bagasse, which is central to extending season length or storing excess bagasse for other uses.
- Increasing the efficiency of transport operations and reducing harvesting delay costs is expected from the software that was developed to analyse time utilisation of locomotives and to predict siding arrival time for locomotives.
- Training resources for rail transport traffic officers and for factory supervisors and operators were completed and made available, and are expected to play a key part in the training of new mill staff.
- Robert evaporator design changes were tested on a final vessel and were found to improve heat transfer performance and the control of syrup brix.
- A pilot-scale solvent extraction system that allows the recovery of high-value renewable commodity chemicals and fuel from bio-oil was fully commissioned at Queensland University of Technology's (QUT) Banyo Pilot Plant Precinct.

KFA6: Product diversification and value addition

Objectives

- Ongoing research to identify and/or develop alternative products or uses for sugarcane and determine the basic requirements for adoption.
- Economic feasibility studies of identified industry byproducts, their use and likely market viability.

Target outcomes

- Growers and millers will benefit from an established research program that monitors, facilitates and develops alternative and innovative uses for sugarcane.

2013–14 highlights

- Regional sugarcane production and processing systems were modelled to build a better understanding of and to estimate the economic impact of changing cane supply characteristics under future production scenarios – that may include electricity or biofuels as additional sugar mill products.
- Proof-of-concept work was successfully completed to demonstrate the production of market-quality paper pulp from bagasse. Plans are underway to move to a pilot plant demonstration of the process viability.
- A full carbon footprint can be determined with data produced from a spreadsheet-based template for the Life Cycle Assessment (LCA) of sugarcane growing, milling, refining and distilling operations.
- Laboratory-scale zeolites and geopolymers from boiler ash were successfully prepared and have opened the way for future work to optimise the production of these products and assess potential commercial utilisation.
- The conversion of cellulose oligomers derived from bagasse into furan derivatives for potential use as fuel additives and chemicals was demonstrated.

KFA7: Knowledge and technology transfer and adoption

Objectives

- Coordinated extension that optimises innovation and adoption at the farm level and encourages research that meets the needs for industry.
- Inclusion of extension mechanisms in research proposals.
- Enhanced communication and transfer tools to disseminate research findings to end-users and facilitate their uptake by growers and millers.
- Assessment of the uptake of developed technologies and the effectiveness of technology transfer tools.

Target outcomes

- Research results and new technologies are communicated and transferred in an appropriate and timely manner across the industry value chain, supporting increased uptake of best practice and innovative technology.
- A skilled advisory sector that drives the adoption of new technology.
- An industry knowledge base that incorporates and makes freely available the most up-to-date production methodologies to industry.
- Collaborative alliances, partnerships and networks that optimise synergies, integrate knowledge and share best practices.

2013–14 highlights

- The latest research findings and practical advice were communicated through new channels:
  - > an extension-focused publication Cane*Connection* targeting the growing sector
  - > a research-focused publication Milling*Matters* targeting the milling sector
  - > a range of new and updated resources for advisors and growers, including pest and disease guides, technical manuals, regional soil nutrient management guides and regional variety guides
  - > a website www.sugarresearch.com.au that attracted over 40,000 visits in its first year with almost 200,000 page views
  - > a YouTube channel – CaneClips – that received over 15,000 views this year.
- We reached more than 600 growers, millers and industry personnel through the grower-focused field days we hosted with Burdekin Productivity Services Ltd (BPS), Herbert Cane Productivity Services Ltd (HCPSL), Mackay Area Productivity Services (MAPS) and the Combined Productivity Services groups, from Tully north.
- To share the outcomes from our suite of milling-related research projects we sponsored four technical update meetings, attracting 70 mill staff.
- A coordinated approach to extension delivery, which plays to each organisation's strengths and reduces duplication in service delivery, was built in collaboration with productivity services groups, private advisors, the natural resource management sector, government and agribusinesses.
- SRA featured prominently in television, radio and print media, achieving proactive coverage valued at $621,000.

KFA8: Capability development, attraction and retention

Objectives

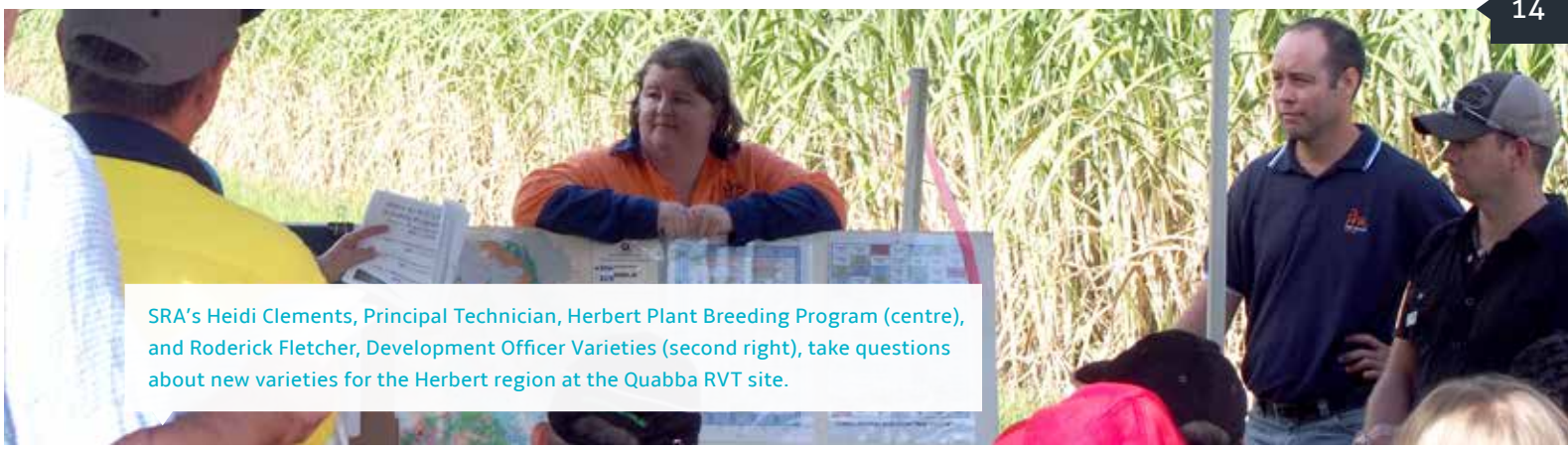
- Review of current and future RD&E skills and capacity needs for the sugarcane industry.
- Development and retention of current industry participants as well as attraction of new participants to the sugarcane industry.
- Fostered collaboration for cross-industry and cross-sectoral skill development, innovation and networks.

Target outcomes

- A highly skilled industry workforce with the knowledge and capability to meet current and future needs of the industry.
- Connected and respected, both domestically and internationally.
- Motivated industry participants who promote an enthusiastic approach to solving industry issues.

2013–14 highlights

- Through a series of on-station forums and other engagement activities, SRA employees explored the Strategic Plan and gained an understanding of how their role aligns with its KFAs.
- To develop entry-level capability, a training course targeting new entrants in the advisory community was held, covering all aspects of sugarcane production.
- SRA played an integral role in the formation of SmartCane Best Management Practice (BMP) through the development of the four core water quality modules, examining soil health and nutrient management; irrigation and drainage management; weed, pest and disease management; and crop production and harvesting management.
- To build industry's knowledge we supported postgraduate scholarships, the Horizon Scholarship, the Nuffield Scholarship and TRAILblazers, as well as capability-building projects that included overseas study tours for participants to learn from leading agricultural experts and research institutes from around the world.
- To start the conversation with future industry leaders we supported industry's Next Gen activities and created our own Young Participants Forum.
- We also invested in and collaborated on cross-sectoral R&D strategies in a range of areas within the National Primary Industries RD&E Framework.
- To share information and collaborate across industries we actively participated in the Council of Rural Research and Development Corporations (CRRDC) which supports Australia's rural research and development corporations.



SRA's Heidi Clements, Principal Technician, Herbert Plant Breeding Program (centre), and Roderick Fletcher, Development Officer Varieties (second right), take questions about new varieties for the Herbert region at the Quabba RVT site.

Extension highlights

Advisor events

20–28 MAY 2014

Hosted annual Adviser Technical Update sessions in Mission Beach, Airlie Beach and Bundaberg.

Agronomy

19 NOVEMBER–5 DECEMBER 2013

Co-hosted precision agriculture workshops in Childers, Walkerston and Mulgrave with the National Centre for Engineering in Agriculture (NCEA).

14 APRIL 2014

Co-hosted a mungbean insect control field walk with the Complimentary Cropping Team in Ayr.

7 AND 13 MAY 2014

Co-hosted agronomy workshops with Combined Rural Traders (CRT).

Biosecurity

28 OCTOBER 2013 AND 30 JANUARY 2014

Attended the industry biosecurity working group meeting hosted by CANEGROWERS in Brisbane.

25 NOVEMBER 2013

Co-hosted the Appliance Inspector Training course with Biosecurity Queensland.

28 NOVEMBER 2013

Liaised with Plant Health Australia to develop the review of biosecurity management systems and BMP Biosecurity practices.

16–17 APRIL 2014

Attended an introgression workshop in Brisbane that looked at crossing exotic sugarcanes for resistance to nematodes, pachymetra and smut.

22 MAY 2014

Met with the New South Wales industry on the use of polymerase chain reaction (PCR) technology to identify ratoon stunting disease in sugarcane.

Grower events

26 SEPTEMBER 2013

Hosted a grower information session in Gordonvale.

20 FEBRUARY 2014

Co-hosted the MAPS trial day.

6 MARCH 2014

Co-hosted a grower information and demonstration day with BPS.

10 MARCH 2014

Co-hosted an information morning with BPS in Ayr.

18–20 MARCH 2014

Major sponsors of and presenters at The Grower Innovation Virtual Expo (GIVE) in Innisfail.

1 APRIL 2014

Co-hosted a Walk 'n' Talk day with HCPSL and DAFF in Ingham.

5 JUNE 2014

Co-hosted a field day with MAPS in Mackay.

Harvesting

14–23 AUGUST 2013

Held a Harvesting Best Practice demonstrations in the Central region.

4 SEPTEMBER 2013

Held a Harvesting Best Practice demonstration in NSW.

9 APRIL 2014

Held a Harvesting Best Practice forum in the Tully region.

11 APRIL 2014

Held a Harvesting Best Practice forum in the Mulgrave region.

7 MAY 2014

Held a Harvesting Best Practice forum in the Herbert region.

20 JUNE 2014

Held a Harvesting Best Practice demonstration in NSW.

Milling

27 MARCH–8 APRIL 2014

Sponsored the milling research roadshow with QUT in Townsville, Cairns, Bundaberg and Ballina.

Nutrition

26 MARCH 2014

Held a soil health workshop in Maryborough.

Pests

17 MARCH 2014

Attended the pesticides and Great Barrier Reef working group meeting.

4–11 JUNE 2014

Held canegrub remote satellite imagery focus groups in the Herbert, Burdekin and Mackay regions.

Research events

29 APRIL–1 MAY 2014

Attended the Australian Society of Sugar Cane Technologists (ASSCT) conference and exhibition on the Gold Coast.

Varieties

5 JUNE 2013–1 APRIL 2014

Attended Variety field walk days in Bundaberg, Harwood, Mackay, Plane Creek, and the Burdekin and Herbert regions.

12 JUNE 2013–4 MARCH 2014

Attended variety selection meetings in Mossman, Mulgrave, Mourilyan, Tully and the Herbert, Burdekin and Central regions.

31 MARCH–2 APRIL 2014

Hosted variety adoption committee meetings for Northern, Herbert, Burdekin, Central, Southern and NSW regions.

Weeds

26 FEBRUARY 2014

Co-hosted a spraying workshop with the University of Queensland's (UQ) Centre for Spray Technology Application Research and Training (C-START) in Gatton.

5 MARCH 2014

Co-hosted a residual herbicide demonstration grower field day at Koumala with DAFF and Plane Creek Productivity Services Ltd.

Yellow Canopy Syndrome

19 NOVEMBER–5 DECEMBER 2013

Held regional information sessions in Ayr, Ingham, Gordonvale and Mackay.

SRA Technicians Anthony Lancini and Megan Zahmel examine young cane at a YCS monitoring site, south of Ingham.

Responses to key industry issues

From time to time, the issues that face our members and levy payers in both the growing and milling sectors change, or new challenges emerge. In 2013–14, the industry continued to be troubled by YCS, adverse weather conditions and pests. In response, we implemented a new wave of research projects and provided extension support and assistance.

Yellow Canopy Syndrome

YCS is a complex and, as yet, unsolved condition that has impacted growing communities from Mossman, south to Mackay.

The initial one-year research project, Solving the Sugarcane Yellow Canopy Syndrome – funded by SRA and DAFF – was completed this year.

From the data collected in the first year of research, a number of possible causes of the condition – herbicide application, linear bugs, a nutrient deficiency or toxicity, and known viral, bacterial or fungal diseases – were largely eliminated from further consideration. In addition, progress was made on understanding the effect YCS has on key plant processes such as photosynthesis and sugar transport.

Importantly, the SRA research team was successful in inducing YCS symptoms in non-affected plants. This laid an important foundation for future research work as trials and experiments can be conducted in a controlled environment, increasing the level of confidence in the results.

In April the SRA Board approved an investment of $4M from reserves to fund an integrated three-year research program to help solve the YCS puzzle. This investment program includes significant funding from DAFF from 1 July 2014, when the program started.

The new research program – which will narrow its focus to target the possible cause or causes of YCS and how these might best be addressed – includes a three-year extension of the initial research project and two new research projects.

The program has brought together some of the best scientific minds from world-renowned domestic and international research institutes.

Although each research project is investigating different aspects of YCS, collectively they are expected to provide complementary information and results that build our understanding of the condition.

Research project one: Solving the Sugarcane Yellow Canopy Syndrome.

Lead research organisation

SRA.

What the project is researching

Is YCS caused by a living or non-living factor, and what role does stress play in triggering or increasing the symptoms of YCS?

Research project two: What biological factors cause or drive the development of YCS?

Lead research organisation

SRA.

What the project is researching

How does YCS affect the internal behaviour of the sugarcane plant?

Research project three: A novel polyphasic framework to resolve Yellow Canopy Syndrome Paradox.

Lead research organisation

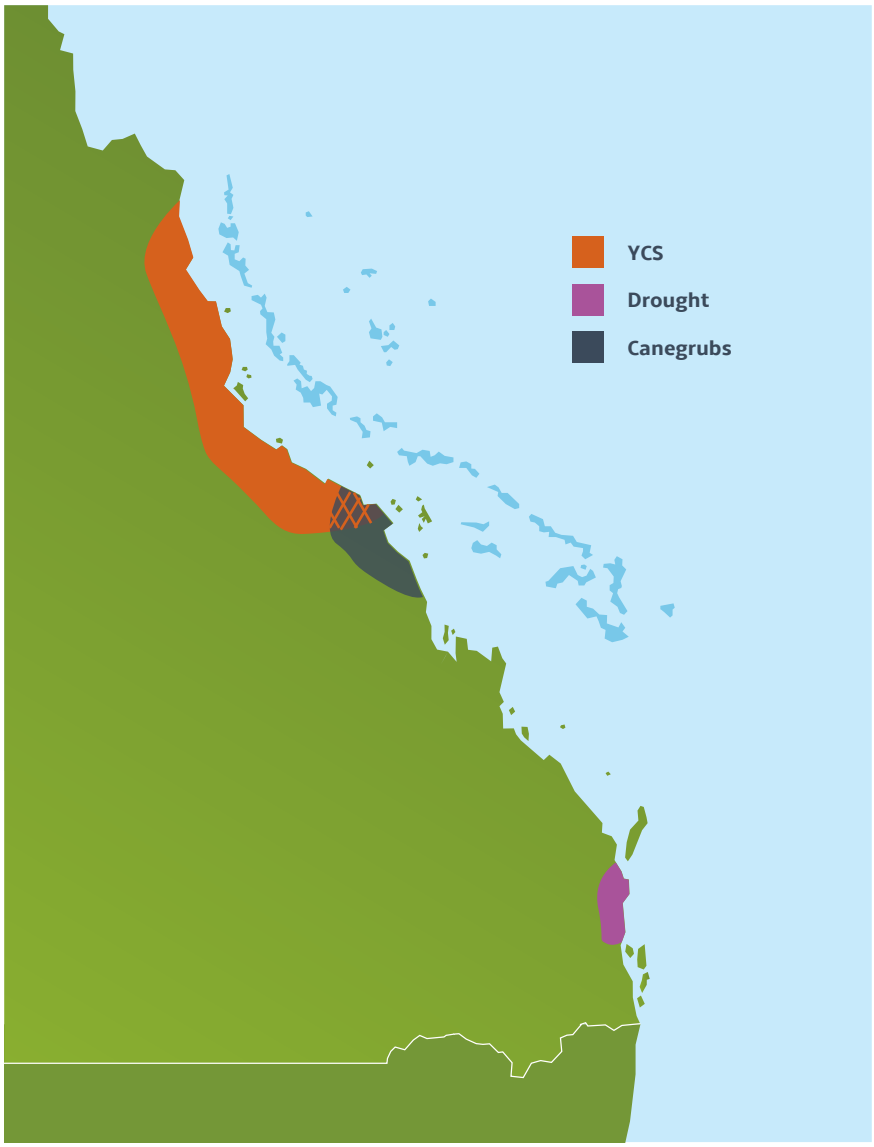
University of Western Sydney.

What the project is researching

What living organisms are present in YCS-affected plants?

The overall research program is being coordinated by a dedicated program coordinator from SRA, with continued input by the Scientific Reference Panel.

Throughout the year, considerable efforts were spent on communicating with industry on research progress, understandings of the condition and extension advice.



Industry update newsletters issued by SRA
27 August 2013
21 October 2013
5 February 2014
5 March 2014

Industry engagement events hosted by SRA
Ayr – 5 February 2014
Ingham – 6 February 2014
Gordonvale – 11 February 2014
Mackay – 17 February 2014
YCS updates were regularly provided to industry at productivity service group Board meetings, grower updates and technical updates

Drought

The dry rainfall patterns experienced in the three southern districts – Maryborough, Bundaberg and Childers – resulted in poor cane growth, particularly in dry-land situations.

Despite the dry conditions, sufficient and timely irrigation resulted in healthy crops on some farms. However, for some growers the rains received in March were too late to ensure viable crops for harvest.

To help growers maximise returns on their farms, we worked with the productivity services and milling communities, including setting up two working groups, to address how affected growers could reduce harvesting losses and increase productivity on marginal soils. We also circulated information through printed mediums and our website.

Canegrubs

Crop damage from greyback canegrubs was evident in most areas from Sarina north.

This level of grub activity indicated an increased grub pressure on next season's crop.

To help growers make decisions about which plant and ratoon blocks should be treated this year – to prevent further damage next year – we developed a new series of online management tools.

These tools included identification guides and risk assessment charts, and were actively promoted to growers in affected areas.

Growers come together to learn more about irrigation efficiency and soil health at the MAPS and SRA field day in Mackay.

SRA members and delegates

With the establishment of SRA and as required by our constitution, we undertook a membership drive, followed by the nomination and election of delegates.

All grower and miller levy payers were invited to become members of SRA.

As members, they can directly engage with our company in a number of ways, including being permitted to vote at general meetings, nominating for election to the Director Selection Committee, and nominating or being nominated as a delegate.

As at 30 June 2014, SRA had seven Group M (Miller) members and 2,250 Group G (Grower) members.

The delegate nomination and election process, undertaken between February and May 2014, culminated with the appointment of 23 Group G delegates and 12 Group M delegates.

The inaugural delegates meeting was held on 22 May 2014.

The role of a delegate is a very important one for SRA. From a constitutional point of view, delegates must consider matters relating to Performance Reviews and the Sugarcane Levy, as well as vote to elect SRA's Director Selection Committee members.

More importantly, a delegate is the representative for members within their particular mill area or mill group and helps to foster a positive and useful two-way relationship between our members and SRA.

Plans for the next 12 months

Having put in place the required structure, in our second year of operation we will build on the roles and relationships being developed by delegates, both individually and as a group.

We will also put in place channels that encourage interaction and open communication between members, delegates and SRA so that together we can build a company that works with and supports our members and the broader sugar industry.

Above: Jay Hubert, Group G Delegate.

Above: Peter Larsen, Group M Delegate.

Meet a **grower** delegate

JAY HUBERT

Mill Area/Group

Bundaberg Sugar Mill Group (South)

Background in sugarcane farming

Farming area: 215 ha

Commodities: Sugarcane, soybeans, pineapples

Do you have any particular passions in a certain area?

Technology, precision farming, farming and harvesting efficiency

Why I became a delegate

My vision for research in the sugarcane industry is that we encourage blue-sky research enthusiasm that creates step change to keep the Australian industry competitive.

I feel that research in the past has been playing around the edges obtaining percentage point gains. The establishment of SRA is an opportunity for growers to become involved and make positive contributions to the long-term future of our industry.

How I believe delegates can add value for SRA members

Delegates add value by being the conduit for information flow from SRA members to the SRA Board and management.

And help SRA members

Delegates can help SRA members by ensuring that their concerns are heard and acted on, and can provide information on who in SRA is best qualified to address their problem. Delegates can also ensure that the SRA Board is grounded to what industry requires.

Meet a **miller** delegate

PETER LARSEN

Mill Area/Group

Plane Creek and Proserpine Mill Areas

About me

I started work in the sugar industry as a Research Officer at BSES in Mackay in 1995, and was employed by BSES until 1998. I worked on green cane trash blanketing and initiated work on sodic soil amelioration. However, I quickly got drawn into the management of agricultural projects and went to Indonesia as the Project Manager for the privatisation of a government-owned sugar mill in Kalimantan. This was during the Asian Financial Crisis and it proved to be a testing time.

I then worked in the forestry industry for a while before moving back to sugarcane as the Property Manager for what was then CSR Sugar, now Wilmar Sugar.

My original role in Wilmar Sugar was to purchase and develop land that was not in cane, including MIS forestry land, and convert it into sugarcane production. We have leased some of these areas to young growers in Plane Creek. Wilmar Sugar has also continued to farm some of these areas. I am now the Agricultural Productivity Manager for Wilmar and have a group role where I am responsible for improving sugarcane productivity in Australia.

Why I became a delegate

I am passionate about building sustainable farming communities. After discussions with senior management in Wilmar we thought it would be a good opportunity for me to contribute to industry, in particular, assisting the development of its RD&E providers.

How I believe delegates can add value for SRA members

Delegates act as a conduit for all SRA members to pass through their concerns and ideas to SRA for incorporation into business and operations planning.

I hope SRA members take the time and opportunity to contact their delegates to bring forward the ideas that will see the industry producing cane for the next 100 years.

And help SRA members

Although I am a miller delegate, my primary role is grower relations and understanding what issues growers face in relation to productivity and profitability.

I come from a R&D background, but have worked as a land developer and manager so I appreciate many of the day-to-day challenges that growers face. Hopefully, I can interpret what growers believe are the 'on-the-ground issues' and put them into research speak for SRA to interpret and use in their planning.

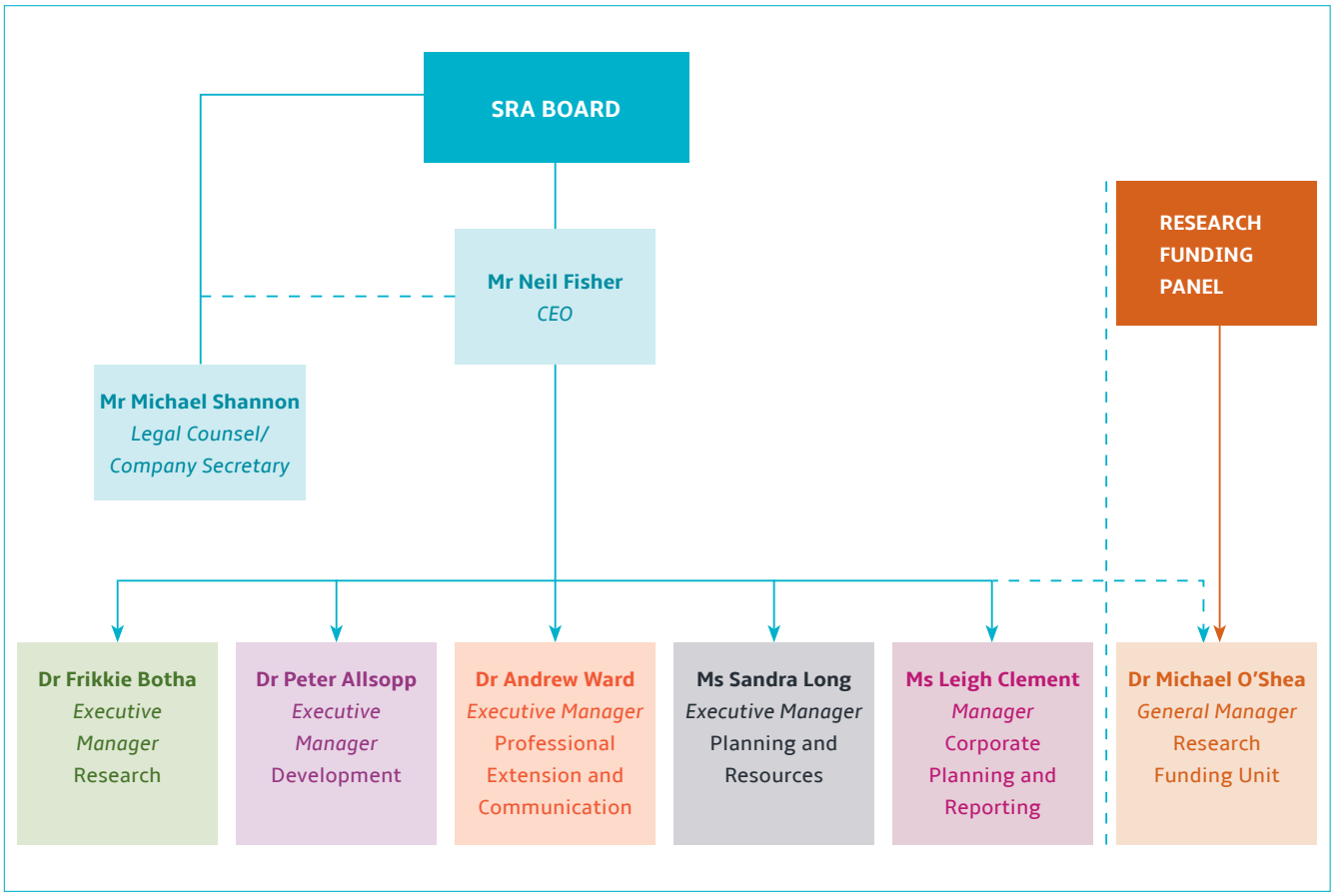
Operational overview

SRA's Dr Nader Sallam, Researcher, examining an *Adelina*-infected greyback canegrub as part of the research into combating this major pest.

Company structure

Our company structure is made up of five units: Research, Development, Professional Extension and Communication, Planning and Resources, and Corporate Planning and Reporting. Each division is led by a Manager or Executive Manager who reports to the CEO. The CEO reports to the SRA Board.

Appointed by the SRA Board, the RFP manages our contestable research grants process. The RFU reports to the RFP and is responsible for the day-to-day management of SRA-funded research projects.



Far left: Dr Robert Magarey receives the Distinguished Service Award from APPS President, Eileen Scott.

Left: Dr Bernard Schroeder receives the Snapper Award from Charlotte Hebebrand, Director General of the International Fertilizer Industry Association.

Our people

SRA recognises the value of and the integral role our people play in the pursuit of our vision: *delivering valued solutions for a growing Australian sugar industry.*

Customer- and outcome-centric, SRA is building a high-performance culture that provides a rewarding place to work.

This culture is being driven by a human resources strategy that uses best practice principles – employee professional development, a range of entitlements and benefits, and effective learning – to build the company's capacity to deliver world-class research that meets industry's needs.

With the launch of SRA's first Strategic Plan all employees were socialised with the plan to understand how their role aligns with the expected outcomes of the plan.

As we move forward, employee activities and deliverables will be aligned to the eight KFAs outlined in the plan. This work will become an underpinning principle of our performance management system that is expected to be launched in late 2014.

We are very proud of the achievements of our people in their service to industry. Outstanding performance in research is recognised by various international and national awards.

- **Dr Robert Magarey**, Principal Scientist, was awarded the Distinguished Service Award at the 19th Australasian Plant Pathology Society (APPS) Conference in November 2013.

  The award recognised Robert's efforts in his research speciality and to the Society during more than 30 years of membership. He has made many significant contributions to the science of plant pathology, particularly in the fields of soil-borne diseases and sugarcane diseases.

- **Dr Bernard Schroeder**, Principal Scientist, was awarded the Snapper Award at the Australia New Zealand Fertilizer Industry Conference in October 2013.

  The award recognised Bernard's efforts in soil and plant nutrition that have helped to optimise sugarcane yields and profitability while minimising nutrient surplus, off-site losses and water quality impacts on sensitive ecosystems such as the World Heritage-listed Great Barrier Reef.

Each year the President of the Australian Society of Sugar Cane Technologists (ASSCT) awards medals for the best research paper and the best industry paper, and two awards for the best agricultural and manufacturing poster. SRA staff received the following awards at the 2014 ASSCT conference:

- **Best Research Paper**

  Dr Peter Samson, Dr Nader Sallam, Keith Chandler, Allen Eaton, Lisa Derby, Jill Jennings (SRA), and Dr Kasper Johansen (UQ) and Dr Andrew Robson (DAFF) for their research paper, 'Mapping canegrub damage from high-spatial-resolution satellite imagery'.

- **Best Posters in Agriculture**

  Anthony Cattle, Michael Grogan and Roy Parfitt for their poster, 'Improving the germination of long hot-water treated sugarcane with a 10-minute pre-treatment'.

- **Mac Hogarth Agriculture Award – Tertiary level**

  Andrea Bryan won this award as the senior author of the best agricultural research paper by a student titled, 'Comparison of methods to assess suckering in the SRA northern variety improvement program'.

Our diverse, skilled and competent workforce includes employees who are also renowned experts in their specialist fields, including:

- **Dr Prakash Lakshmanan** is a world leader in sugarcane biotechnology and trait development. He has done pioneering work in sugarcane tissue-culture systems, development of transformation technologies and characterising water-use efficiency in sugarcane.

- **Dr Barry Salter** is well known for his innovative research in the new sugarcane production system to improve and develop better practices in controlled traffic and variety performance. In addition, his work focuses on the development of practices designed to improve soil health.

- **Dr Nicole Thompson** manages our relationship with Ramu Agri-Industries in Papua New Guinea and through her work ensures that all sugarcane varieties newly imported through variety exchange schemes are free from diseases and pests that could devastate the Australian industry.

- **Dr Xianming Wei** leads our interaction with research institutes in China on the incorporation of new germplasm through introgression with wild-type canes.

Cross-sectoral R&D and research collaborations

SRA is committed to undertaking cross-sectoral collaboration and continuing to invest in leveraged research activities with other IOCs and research and development corporations (RDCs) to benefit both the Australian sugar industry and the broader Australian community.

These collaborations, which take many different forms and vary widely in scale, are an important way to achieve greater outcomes from investments than would otherwise have been achieved alone.

The improved communication and coordination within these activities helps to better disseminate R&D activities and outcomes across different industries and improves the prospects of future collaboration.

Cross-sectoral R&D

SRA currently invests in and collaborates on cross-sectoral R&D in the strategy areas outlined below within the National Primary Industries RD&E Framework. SRA participates in these strategies as an investor, participant, program manager and/or steering committee member.

- ***Biofuels and bioenergy***

  This strategy acts as a forum to provide opportunities for collaboration and communication, encourage knowledge sharing and resource efficiency, lead appropriate R&D activities and update the national RD&E strategy and priorities.

- ***Climate Change Research Strategy for Primary Industries***

  This strategy aims to prioritise and direct research funds on priority climate change research, identify key research organisations and research capacity, collaborate broadly to conduct R&D activities and to communicate with government and policy makers on climate change issues.

- ***Managing Climate Variability***

  This program funds research into climate forecasting tools and supports knowledge and communication activities to increase the understanding and uptake of climate-related opportunities that benefit agriculture and Australia's natural resources.

- ***Water use in agriculture***

  This strategy aims to achieve world-leading farm water productivity within Australian agriculture, while enhancing environmental and social sustainability and maximising RD&E benefits.

- ***Plant biosecurity***

  This strategy is led by Plant Health Australia with the goal of protecting Australia from the negative effects of plant pests, sustaining food supply quality and supporting long-term sustainable production practices.

- ***Soils***

  This national strategy aims to improve soil management to increase productivity and profitability, enhance soil mapping, develop better ways to manage soils and soil constraints, and grow the understanding of the role of soils in natural ecosystems.

- ***Occupational health and safety***

  (investment finished on 30 June 2014)

  This partnership seeks to improve knowledge about the physical and mental health of farming and fishing families, and the safety, environment and work practices in these industries.

Other research activities that fit within the cross-sectoral investment theme include participation within the:

- ***National Working Party for Pesticide Application***

  This working party is a forum to assist with understanding Australian Pesticides and Veterinary Medicines Authority (APVMA) policies, provision of practical risk management advice, and the facilitation of targeted research in areas such as managing pesticide spray drift and downwind buffers.

- ***Improved access to Agvet chemicals for agricultural industries***

  This program aims to determine priorities for chemical access and develop frameworks to specific case studies to quantify industry benefits.

  It also seeks to develop measures to understand industry reliance on chemicals and enable comparisons across different primary industries.

Research collaborations

SRA recognises there is a growing need for more collaboration among researchers and research organisations in the interests of leveraging resources and achieving productivity growth in an increasingly resource-constrained and competitive environment.

We have close working relationships with the following institutions.

UQ is a recipient of SRA research funding. Ranked among the top 100 research institutions in the world, UQ is renowned for its expertise in plant biotechnology, including metabolic network and genetic analyses.

The Queensland Alliance for Agriculture and Food Innovation (QAAFI), formed as a strategic alliance between UQ and the Queensland Government, is an internationally recognised agriculture and food research institute providing excellence in research and development. Its mission is to significantly improve the productivity, competitiveness and sustainability of tropical and subtropical food, fibre and agribusiness industries.

QUT is a major recipient of SRA research funding and also functions as a collaborator for some aspects of SRA research. The QUT expertise is based in Brisbane at the Centre for Tropical Crops and Biocommodities (CTCB) and typical research activities include areas such as sugarcane milling, supply chain logistics, process modelling and optimisation, sugar process chemistry and diversification options.

The QUT group also has a number of sugar industry-sponsored postgraduate students who are working on projects focused on aspects of engineering, industry byproducts, alternative processing methods and process chemistry.

USQ is a major recipient of SRA research funding and also functions as a collaborator for some aspects of SRA research. The USQ expertise is gained from its Institute for Agriculture and the Environment.

The institute conducts world-class research in climate science, irrigated agriculture, and engineering in agriculture that works across disciplines to develop agricultural production systems for the future.

The institute draws upon two decades of pioneering applied research in irrigation and precision agriculture done by USQ's climate science and plant pathology groups and the NCEA.

The **International Consortium of Sugarcane Biotechnology (ICSB)** is a non-incorporated 24-year-old affiliation of 19 sugarcane research organisations in 16 countries, founded for collaboratively developing and sharing molecular biology data and technologies on sugarcane.

ICSB has funded 31 research grants to develop new molecular tools to solve specific sugarcane problems. This accumulation of knowledge and technology has contributed to the development of more efficient strategies for identifying and cloning genes of interest to be used for germplasm improvement and for complete genome sequencing. This will allow breeding programs to use mapped markers to select parents and progeny for specific traits.

SRA also collaborates with many sugar-related research institutes throughout the world.

We have variety exchange agreements with most of the major sugarcane plant-breeding organisations in countries such as Brazil, Guatemala, the United States of America, China, Japan, Sri Lanka and Mauritius.

The joint biosecurity R&D projects that we deliver with the Indonesian Sugar Research Institute and Ramu Agri-Industries in Papua New Guinea are vital to improving the capacity of the Australian industry to respond to new incursions of pests and diseases.

Corporate operations

Dr Donna Glassop (CSIRO Agriculture Flagship) examines plants grown in a controlled environment chamber to test new tools for enhancing sugarcane breeding.

Corporate governance framework

Sugar Research Australia Limited ('**SRA**' or '**Company**') was incorporated on 8 May 2013 as a public company limited by guarantee. SRA is an industry-owned corporation with a membership consisting of grower and miller members.

SRA operates within a corporate governance framework consisting of the *Corporations Act 2001* (Cth) supervised by the Australian Securities & Investments Commission (ASIC), other relevant laws and its Constitution. SRA is the Industry Services Body as declared for the purposes of the *Sugar Research and Development Act 2013* (Cth). As such, SRA is party to a Statutory Funding Agreement (SFA) 2013–2017 with the Commonwealth of Australia represented by the Department of Agriculture.

In developing and implementing SRA's corporate governance framework and practices, SRA has taken into account the ASX *Corporate Governance Council's Corporate Governance Principles and Recommendations (3rd edition)*.

The Constitution, the SFA and other documents and policies relevant to SRA's corporate governance framework (including a Governance Policy) are available on SRA's website: www.sugarresearch.com.au

Constitution

SRA's Constitution contains rules regarding, among other things:

- the objects of the Company
- activities not permitted by the Company (including agri-political activities)
- criteria for eligibility for membership as a Group G Member or Group M Member
- voting procedures and entitlements for members' meetings
- appointment of Group G Delegates and Group M Delegates
- requirements for strategic and annual operating plans and reviews of performance
- composition, selection, election and rotation of the Board and various committees
- procedures for Board and committee meetings
- reporting responsibilities to its members (in conjunction with the *Corporations Act 2001* (Cth)).

Statutory Funding Agreement

SRA entered into an SFA 2013–2017 (dated 5 August 2013) with the Commonwealth of Australia acting through the Department of Agriculture.

Under the SFA, the Commonwealth has agreed to pay the Sugarcane Levy paid by sugarcane growers and millers to SRA, together with Commonwealth matching payments. The SFA sets out how these payments are to be used and the requirements that SRA must follow in relation to:

- research, development and extension activities
- corporate governance and Board performance
- application and management of the Sugarcane Levy and matching Commonwealth funds in compliance with various Commonwealth guidelines
- reporting and accountability obligations of SRA, including a Strategic Plan, Annual Operational Plan, Risk Management Plan, Fraud Control Plan, Intellectual Property Management Plan and Asset Management Plan
- procedures and requirements for consultations with the Commonwealth.

SRA membership

Under the Constitution, there are two classes of members: Group G Members and Group M Members. A sugarcane-growing business or milling company that pays the Sugarcane Levy in the calendar year concerned (or previous calendar year) is eligible for membership of SRA. Group G Members and Group M Members can participate in general meetings of the Company and in the election of Directors.

As at 30 June 2014, there were seven Group M Members and 2,250 Group G Members.

SRA delegates

The Constitution sets out the process for the nomination, election and appointment of Group G Delegates and Group M Delegates (together, '**delegates**').

The role of each delegate is pivotal to the membership-related governance processes of SRA.

The primary role of delegates, as prescribed under the Constitution, is to attend delegates meetings, as scheduled by SRA, for the purposes of:

- considering matters relating to Performance Reviews and the Sugarcane Levy
- voting to elect SRA's Director Selection Committee members (established 22 May 2014).

A list of the current delegates and the mill areas they represent is available in Appendix B of this report and on the SRA website: sugarresearch.com.au

Corporate governance

The Board

The Board has adopted a Governance Policy that details:

- the constitutional requirements for Board composition and eligibility
- procedures for Board meetings and Board minutes
- Directors' access to information, advice and staff
- Board induction processes
- Directors' professional development
- Board performance evaluation
- CEO performance evaluation.

Composition

As at 30 June 2014 and the date of this Annual Report, the Board comprised seven non-executive directors ('**Directors**'). Under SRA's Constitution, the Board must have a balance of appropriate and identified skills and experiences, having regard to the nature and business affairs of the Company and needs to demonstrate collective expertise against each of the following:

- corporate governance (including chairing a company)
- sugarcane growing
- sugarcane processing for any product
- R&D, technology transfer, commercialisation and adoption
- conservation and management of natural resources
- administration of R&D
- finance and business management.

As required by the Constitution, the Board undertook an annual review prior to 30 June 2014 of the skills required to effectively lead and manage the Company and contribute to Board processes. These skills were subsequently advised to the Director Selection Committee.

Board members

The names and details of the Company's Directors in office during the reporting period and until the date of this report are listed on pages 33-35. All Directors were in office for the entire reporting period.

Role and responsibilities of the Board

As detailed in the Strategic Plan, SRA's vision is to deliver valued solutions for a growing Australian sugar industry and its purpose is to undertake targeted RD&E programs for the Australian sugar industry. The Board seeks to carry out the Company's objects set out in the Constitution and guide its strategic direction.

The role and responsibilities of the Board are set out detail in a formal Board Charter, which was formalised after the commencement of the Company in operations and updated in 2014. More specifically, the Board's responsibilities include:

- ensuring the Company has an appropriate corporate governance structure
- monitoring and assessing the Company's performance against the Strategic Plan and Annual Operational Plans
- monitoring compliance with legal and regulatory obligations
- monitoring SRA's risk management systems and processes
- providing accountability to SRA members and stakeholders
- appointment and oversight of the CEO
- ensuring adequate resourcing to meet objectives of the Company
- monitoring and reviewing succession planning for executive management
- establishing Board committees with roles and responsibilities, delegations and reporting frameworks
- making sound financial decisions
- reviewing and approving policies, plans, performance targets and budgets.

Rotation of the Board

The Constitution provides for three-year periods of office for Directors.

Directors are to rotate from the second year and each subsequent Director Selection Committee process is outlined in the Constitution. The second Director Selection Committee process will occur before the Annual General Meeting in 2015. The Constitution provides that 40 per cent (to the nearest whole number) of the Director positions must be open for review and selection by the Director Selection Committee and subsequent recommendation for election by the members of SRA. Vacancies created when Directors retire by rotation allow the Board's composition to be reviewed annually to ensure that it continues to align with the skills and experiences necessary to effectively lead and manage the Company.

Board meetings

The Board held 11 scheduled meetings during the reporting period commencing 8 May 2013 and ending 30 June 2014. The Board also met twice by teleconference to address issues arising between meetings.

Meeting agendas are formulated in preparation for each Board meeting and also include items from an annual Board reporting agenda that sets out various items to be considered and reviewed throughout the year. These

items include reviews of the Company's strategic environment and key focus areas, operational and industry issues, and forecasts. Regular management reports, Committee reports, Workplace Health and Safety reports and Risk Management reports are prepared for each Board meeting.

The annual reporting agenda also sets review dates for items that must come before the Board under performance, compliance and governance requirements. Meeting agendas are set by the Chairman in consultation with the CEO and Company Secretary.

When necessary, management attends and provides input into agenda items of particular Board meetings relevant to their portfolios. Directors have regular exposure to management and other employees through convening every second Board meeting at a regional location. At these regional visits, the Board meets with SRA employees, industry representative bodies, and grower and miller members. They also host and attend industry forums and events.

Directors receive regular reports from the CEO on the Company's activities since the last report to Directors, including information on research and other projects, variety improvement, farming and extension services, financial performance and strategic initiatives, and performance against the Strategic Plan and the eight key focus areas. Matters arising from these reports are discussed at Board meetings.

The Board regularly considers and discusses strategic issues and the eight key focus areas set out in the Strategic Plan and matters that may assist to further promote and develop the Company's role in providing RD&E services to the Australian sugar industry. During the reporting period, the Board participated in four strategic planning workshops.

Code of Conduct

The Constitution requires, and the Board has adopted, a Code of Conduct ('**Code**') for Directors, Senior Officers, delegates, and Committee members (together '**Office Holders**'). The Code includes provisions, among other things, relating to:

- use and disclosure of information
- receiving, keeping, holding and reporting gifts of any description by Directors and senior officers of the Company
- conflicts of interest and duty
- ethical behaviour by the Company, Directors and its senior officers in relation to the Company's affairs.

Under the Code, all Office Holders must act in accordance with seven fundamental principles – selflessness, integrity, objectivity, accountability, openness, honesty and leadership.

By accepting appointment as an Office Holder, each Office Holder agrees to be bound by and comply with the Code. During the reporting period, no material breaches of the Code were reported to the Board or came to its notice.

Conflicts of interest

Each Director provides information about their business and other interests to the Board at the time of their appointment and this information is updated following further notifications by a Director at the time.

The Board has adopted a Declaration of Interests Policy that applies to all Office Holders (as defined above in the *Code of Conduct*).

Independent advice

The Constitution recognises there may be occasions when the Board as a whole, or Directors as a group or as individuals, believe it to be in their interests and in the interests of the Company to seek independent professional advice, on matters such as accounting, taxation or law, at the Company's expense. Requests for the provision of such advice are to be directed to the Chairman or the Company Secretary.

Board performance

Under the Board Governance Policy, the Board must conduct an annual review to evaluate performance of the Board as a whole, the Chairman, each individual Director and committees as it considers appropriate. The Board utilises independent external consultants to assist in performing the annual Board performance evaluation.

Delegations to management

The Board has delegated responsibility for management of SRA's day-to-day operations to the CEO.

SRA has a formal policy on delegations and authorities, which sets out levels of financial and contractual delegations to management and staff.

Board committees

SRA has established four committees (each a 'Committee') as follows:

- Audit and Risk Committee
- Remuneration and Appointments Committee
- Research Funding Panel (RFP)
- Director Selection Committee.

Each Committee has a charter setting out its roles and responsibilities. The Audit and Risk Committee and Remuneration and Appointments Committee are comprised solely of non-executive Directors, with management attending Committee meetings by invitation only. The Research Funding Panel is a Committee of the Board and is comprised of an independent chair and four other independent people appointed by the Board plus one Director of SRA. The Director Selection Committee is comprised of an independent chair appointed by the Board and two members each elected from Group G and Group M Member Representatives by the respective Group G and Group M Delegates.

The members of each Committee, together with each member's attendance at meetings, are set out in the Director's Report on page 36.

Audit and Risk Committee

The Audit and Risk Committee reviews, on an ongoing basis, a suite of reports that cover SRA's operational and strategic performance. The suite of performance reports that are considered by the Committee include SRA operational reports, such as Finance, Workplace Health and Safety and Risk Management, and Research Funding

Unit (RFU) reports on the investment project portfolio. Where required, the Committee provides the Board with recommendations for remedial action to be taken to ensure SRA's operational and strategic performance remains on track. The Committee has formal terms of reference approved by the Board as detailed in its Charter. The key functions and accountabilities of the Audit and Risk Committee and which are set out in its Charter, are to:

- assist the Board in ensuring that the Company understands key risks for the Company and complies with its legislative and other obligations
- review the internal processes for identifying, monitoring and managing key risks for the Company
- review and monitor any transactions with related parties or agri-political organisations
- review the external auditing of the Company, including making recommendations to the Board on the qualifications, appointment, remuneration and monitoring of the Company's external auditor
- review the internal auditing of the Company, including the systems and procedures for that auditing, and reporting results of those audits
- review the external reporting of significant financial information about the Company to improve its objectivity and reliability
- review the Board and Company procedures and practices relating to the SRA RFP and the overall conduct of research and research management functions.

As at 30 June 2014, the Audit and Risk Committee consisted of Mr Mike Gilmour (chair), Dr Helen Garnett and Dr Ron Swindells. The Committee met seven times during the reporting period.

Under the Committee's Charter, the CEO, Executive Manager Planning and Resources and other members of the management team and representatives of the Company's auditors attend by invitation.

Highlights of the work undertaken by the Audit and Risk Committee during the reporting period include:

- endorsing the Risk Management Framework
- endorsing the Fraud Control Plan
- agreeing on the scope of an internal audit function.

Research Funding Panel

The RFP has formal terms of reference approved by the Board as detailed in its Charter. The key functions and accountabilities of the RFP are set out in its Charter, which are to:

- conduct a contestable research grants process to identify project applications for support from Company contestable research funding
- develop and promulgate processes for selection of a portfolio of projects, from applications from internal and external providers, on merit against the Strategic Plan, and industry and national priorities and through a robust, transparent system timed to optimise research performance and to meet reporting requirements
- work with the Board to ensure separation of Company research staff and SRA RFU staff responsible for the contestable research funding process, including monitoring and evaluation management, so that internally and externally provided projects are selected and managed objectively and without bias
- work with the Board to ensure systems for efficient contracting and research program and R&D project monitoring and to develop and establish a project performance evaluation system to meet industry, government and Council of Rural Research and Development Corporations (CRRDC) expectations.

The RFP consists of Professor Alan Johnson (chair), Dr Nils Berding, Mr Laurie Watson, Dr Paul Donnelly, Dr Andrew Wood and Dr Ian Johnsson (Board Director) as at 30 June 2014. The Committee met four times during the reporting period commencing on 8 May 2013 and ending 30 June 2014.

The General Manager, Program Managers and other members of the RFU attend by invitation.

Highlights of the work undertaken by the RFP during the reporting period include:

- a number of review activities conducted throughout the year, including:
  - > Initial review of the inherited SRDC project portfolio for alignment against the Strategic Imperatives of the Interim SRA Strategic Plan
  - > Review, ranking and shortlisting of Preliminary Research Proposals (PRPs)
  - > Review, ranking and recommendation for funding of Final Research Proposals (FRPs)
  - > Review of Sugar Research Postgraduate Scholarship (SRPS) applications
- having developed and finalised the formal Charter for RFP operation, developed guidelines for dealing with governance and conflict of interest situations, developed the timelines for the Project Call and provided feedback to the SRA Board on the efficiency and outcomes of their processes.

Remuneration and Appointments Committee

The Remuneration and Appointments Committee has formal terms of reference approved by the Board as detailed in its Charter. The key functions and accountabilities of the Committee set out in its Charter are to:

- develop and review policies on remuneration for Directors and senior officers of the Company, including terms of contracts, retention and termination
- review remuneration agreements for senior officers of the Company
- conduct assessments of key senior officers in relation to the performance objectives of the Company, and advise the Board
- assist the Board in ensuring that the Company complies with all regulatory and accounting requirements for disclosure of remuneration.

As at 30 June 2014, the Committee comprised Mr Steve Guazzo (chair) and Dr Helen Garnett. Since incorporation of the Company on 8 May 2013 and up to

30 June 2014, there has been one meeting of the Committee.

Director Selection Committee

The Director Selection Committee has formal terms of reference approved by the Board as detailed in its Charter. The key functions and accountabilities of the Committee set out in its Charter are as follows:

- to identify and nominate the number of persons needed for election to the Board as Directors of the Company
- to ensure a field of candidates and to choose from the available candidates for nomination those persons who will in its view best ensure the Board collectively has an appropriate balance of skills and experience in the areas identified under the Constitution
- if the Chair is a retiring Director, to identify and nominate a person with appropriate skills for election to be Chair of the Company
- each Director Selection Committee may take any action it thinks appropriate to advertise vacancies and using a transparent search process, to identify persons suitable for election or re-election to the office of Director.

The Constitution and the Committee Charter set out the requirements for the proceedings of the Committee and the qualifications, skills and experience necessary for the Board and which the Committee must consider.

The Board Composition matrix is available to view at SRA's website: www.sugarresearch.com.au

The Committee is comprised of Mr David Crombie (independent chair), Mr Paul Schembri (Group G Member Representative), Mr Allan Dingle (Group G Member Representative), Mr Quinton Hildebrand (Group M Member Representative) and Mr John Gorringe (Group M Member Representative).

Reporting and accountability

SRA communicated regularly with its key stakeholders throughout the reporting period.

Detailed information about the extension and communications activities undertaken in 2013–2014 is provided in the following sections:

- Extension highlights – pages 14-15
- Responses to key industry issues – pages 16-17

As noted above, SRA entered into a Statutory Funding Agreement 2013–2017 (dated 5 August 2013) with the Commonwealth of Australia acting through the Department of Agriculture. Under the SFA, a reporting framework is set out under which SRA must report to the Commonwealth. Key reporting obligations include the:

- Strategic Plan
- Annual Operational Plan
- Risk Management Plan
- Fraud Control Plan
- Intellectual Property Management Plan
- Asset Management Plan.

After each financial year, the Company must provide the Commonwealth with a compliance audit report and a certification report in respect of compliance with the *Sugar Research and Development Act Services 2013* (Cth).

Risk management

SRA's risk management policies and assessments are set out in its Risk Management Plan that outlines the process followed to identify risks and categories of risks (e.g. strategic and operational).

Individual risks have been identified, assessed, categorised and entered on a risk register, which forms part of the plan.

The Board has delegated to the Audit and Risk Committee the responsibility to monitor and review risks which receives regular reports from management.

A management risk committee meets regularly to consider the list of risks and identifies new risks for consideration by the Audit and Risk Committee.

Insurance

SRA maintains an insurance program that provides cover for identified, insurable risks. The Constitution provides for an indemnity by the Company to each of the Directors and other officers of the Company for potential losses incurred as a result of a claim by reason of an act committed by them in their capacity as Director or office holder, unless the liability arises from conduct involving a lack of good faith.

During the financial year, the Company paid an insurance premium in respect of an insurance policy for the benefit of Directors, Company Secretary and other officers of the Company and an additional premium in respect of professional indemnity insurance.

The Directors' and officers' liability insurance policy grants indemnification in respect of certain liabilities for which the *Corporations Act 2001* (Cth) allows indemnification.

In accordance with normal commercial practice and under the terms of the insurance policies, the nature of the liabilities insured against and the amount of premiums paid remained confidential.

Statutory reports

SRA's Dr Prakash Lakshmanan, Trait Development Manager (right), explains SRA's biotechnology projects to Dr Helen Garnett, SRA Director (centre), and Mr Dominic Nolan, CEO ASMC (left).

Directors' Report for the period ended 30 June 2014

The Directors of Sugar Research Australia Limited ABN 16 163 670 068 (**'Company'** or **'SRA'**) submit their report for the period commencing on 8 May 2013, being the date of the Company's incorporation and ending on 30 June 2014 (**'reporting period'**) as follows:

Company limited by guarantee

The Company was incorporated on 8 May 2013 and is a public company limited by guarantee. The Company has Group G (grower) Members and Group M (miller) Members (together the **'members'**). The Constitution states that, if the Company is wound up, the liability of each member is limited as follows:

(a) each member at the time the winding up starts; and

(b) each person who, at any time in the 12 months before the winding up started, was a member, undertakes to contribute to the assets of the Company up to an amount not exceeding $2 for payment of the debts and liabilities of the Company, including the costs of winding up.

As at 30 June 2014, there were seven Group M Members and 2,250 Group G Members. The total amount the members of the Company are liable to contribute if the Company is wound up for 2013–14 is $4,514.

On any winding up of the Company, any surplus property must not be paid to members but must be paid or transferred to another corporation, fund, authority or institution with:

(a) objects similar to the Company's objects; and

(b) a constitution which prohibits the distribution of its income and property among its members.

Objectives

SRA's primary long-term objective is to facilitate and deliver innovative technology and best-practice to the sugar industry through a disciplined customer- and outcome-centric research, development and extension (**'RD&E'**) development and investment program and practical and effective knowledge exchange that translates research and development into practice.

In support of this objective, SRA is focused over the short- to medium-term on:

- Better positioning SRA to respond to emerging industry issues, such as Yellow Canopy Syndrome;
- Improving the adoption of research and development outputs; and
- Identifying, developing and delivering RD&E programs that contribute to broader industry outcomes, such as improved yield, productivity, profitability and sustainability.

To deliver on these strategic objectives, SRA has identified a suite of RD&E objectives for the key focus areas identified in the Strategic Plan.

Strategy for achieving objectives

The Company's primary strategy for achieving its objectives is summarised in the section entitled *Appendix C - 2013/14–2017/18 Strategic Plan summary* of the *Annual Report 2013–14* and these pages form part of this report.

Principal activities during the reporting period

The Company's principal activities during the reporting period consisted of research, development and extension activities to contribute to the development of the Australian sugar industry. As detailed in the Constitution, the Company receives, amongst other funding, funds from the Commonwealth of Australia by way of proceeds from the Sugarcane Levy payable by sugarcane growers and millers under the *Primary Industries (Excise) Levies Act 1999* (Cth).

Through utilisation of the Sugarcane Levy (and funding from other sources) the Company carries out, co-ordinates and invests in research and development activities so as to facilitate dissemination, extension, adoption and commercialisation of results of research and development activities in relation to the Australian sugar industry.

Financial result

The profit for the reporting period is $52,099 thousand, including:

- $46,457 thousand as a result of the transfer of the business activities of BSES Limited and the Sugar Research and Development Corporation into SRA;
- $4,823 thousand from operating activities, which is higher than anticipated due to increased Commonwealth matching funds and deferral to the following financial year of some research project milestones; and
- $819 thousand of interest income.

Performance measurement

SRA operates through an annual cycle of planning and accountability at all levels in the organisation.

The cycle includes interlocking processes of strategic and operational planning, budgeting, implementation, evaluation, performance review and accountability to our members, levy payers and government investors.

SRA measures its performance against the Key Performance Indicators in its Strategic Plan and Annual Operational Plan, as well as taking into account:

- the meeting of project milestones;
- the performance of SRA in meeting its obligations under the Statutory Funding Agreement (SFA); and
- member and stakeholder satisfaction and feedback.

The Audit and Risk Committee reviews, on an ongoing basis, a suite of reports that cover SRA's operational and strategic performance.

The suite of performance reports that are considered by the Audit and Risk Committee include: SRA operational reports, including, among other things, Finance, Workplace Health and Safety and Risk Management, and Research Funding Unit (RFU) reports on the investment project portfolio.

Where required, the Audit and Risk Committee provides the Board with recommendations for remedial action to be taken to ensure SRA's operational and strategic performance remains on-track.

Directors

The names and particulars, and the qualifications and experience of the Directors of the Company in office during the reporting period and until the date of this report are as follows. Directors and officers were in office for this entire period unless otherwise stated.

Director	Experience, special responsibilities and independence status
Mr Paul Wright AM	***Chairman*** Mr Wright served as Chairman of BSES Limited from 2006 to 2013 and has held senior management and leadership roles in the banking, health, hospitality and consulting industries. In 2006, he was appointed a Member of the Order of Australia for his service to medical administration and to business and commerce. During a working career spanning over 45 years, including 28 years as a company director, he was: • General Manager for Queensland and the Northern Territory of the Medical Benefits Fund of Australia Limited • General Manager of The Brisbane Club • Chairman of The Australian Institute of Management • Chairman of The Royal Flying Doctor Service • Chairman of The Queensland Institute of Medical Research (QIMR) Trust • Deputy Chairman of the QIMR Council. Mr Wright is currently serving directorships with: • Australian Sugar Industry Alliance Limited • Phoenix Eagle Company Pty Ltd (Chair) • Janette McArthur Pty Ltd • Idec Solutions Pty Ltd.
Dr Helen Garnett PSM *BSc (Hons), PhD, FTSE, FAICD*	Dr Garnett is an experienced company director and chairman, with 20+ years' experience as a director with listed and unlisted entities in the primary industry, resource, energy, health and education sectors, complemented by 15 years as a chief executive of entities involved in research, technology development/ transfer and education. She is a fellow of the Australian Institute of Company Directors and of the Australian Academy of Technological Sciences and Engineering. Until recently, Dr Garnett was the chair of the Australian Biosecurity Intelligence Network and a director of the Grape and Wine Research and Development Corporation. Dr Garnett is currently: • Chair, Delta Electricity • Chair, MAGNT Foundation Ltd • Director, Energy Resources of Australia Limited (and Chair Audit and Risk Committee) • Director, Carbon Energy Limited (and Chair Audit and Risk Committee) • Director, Australian Centre for Plant Functional Genomics • Director, National Centre for Vocational Educational Research • Director, Crawford Fund. Member – Audit and Risk Committee. Member – Remuneration and Appointments Committee.

Director	Experience, special responsibilities and independence status
Mr Mike Gilmour *Dip Acctg, MBA,GradDipACG, FCPA, FAICD, FGIA, JP (Qual)*	Mr Gilmour is an experienced company director with a strong commitment to corporate governance. Mr Gilmour is also an experienced chief financial officer and senior executive manager, with roles in the professional services, health and manufacturing sectors. Mr Gilmour currently consults to listed and unlisted companies and organisations on financial and business re-engineering, risk management, governance and strategic planning. Through his schooling years and early work career, Mr Gilmour lived in the wheat and sheep growing district in the mid-north of South Australia. Mr Gilmour has recently stepped down from the role of Chair of the Metro North Brisbane Medicare Local, and as Chair of the Brisbane Metropolitan Region TAFE. Mr Gilmour is a former President of the Queensland Division of CPA Australia and currently holds the following directorships: • Independent Director of Isis Central Sugar Mill Ltd • Chair of Open Minds. Chairman – Audit and Risk Committee.
Mr Steve Guazzo	Mr Guazzo has extensive sugar industry experience as a sugarcane grower and harvesting contractor. He has also filled a range of industry representative positions for over 35 years. Mr Guazzo served as a Director of Sugar Terminals Limited for nine years and is a member of the Australian Institute of Company Directors. Mr Guazzo is currently serving directorships with: • Queensland Canegrowers Organisation Limited (Vice-Chairman) • CANEGROWERS Queensland Policy Council (Vice-Chair) • CANEGROWERS Herbert River (Chair) Chairman – Remuneration and Appointments Committee.
Dr Ian Johnsson *BRurSc (Hons I), PhD*	Dr Johnsson has worked extensively for national rural industries in the not-for-profit R&D corporation environment and reported to Rural R&D Corporation Boards since 1987. Dr Johnsson was the General Manager for Livestock Production Innovation with Meat and Livestock Australia until 2011 and continues to consult in rural RD&E strategy development and program evaluation. Dr Johnsson was a member of the Board of the Australian Biosecurity Cooperative Research Centre from 2004 to 2006 and has been a member of the Australian Institute of Company Directors since 2002. Dr Johnsson is currently serving directorships with: • Cooperative Research Centre (CRC) for Sheep Industry Innovation • Executive Chair of the Science Review Panel for the National Livestock Methane Program. Member – Research Funding Panel
Mr John Pollock *BAgrSc, MAgrSc, QDA*	Mr Pollock served as a Director of BSES Limited from 2006 to 2013 and has extensive expertise in research, natural resource management, primary industries and corporate management and currently serves as Chair of several government committees. Mr Pollock has had a connection with the sugar industry throughout his life as a cane grower, researcher, public policy officer and research manager and funder. He has also held roles as • Executive Director of the Department of Primary Industries and Fisheries • Deputy Commissioner for the Murray-Darling Basin Commission • Board Member of the Queensland Fisheries Management Authority • Director of the Sugar Research and Development Corporation • Director of Skyview Solutions Ltd. Mr Pollock is currently serving a directorship with: • Tablelands Futures Corporation Ltd.

Director	Experience, special responsibilities and independence status
Dr Ron Swindells *BE (Chem) (Hons), PhD, FIE Aust, FAICD*	Dr Swindells has been a Director of Sugar Research Limited and served as its Chairman between 1993 and 2003. He has also been a Director for Mackay Refined Sugars and the Australian Sugar Milling Council as well as an alternate Director of Sugar Australia Ltd and the New Zealand Sugar Company. Dr Swindells has operated at the senior management level in a number of companies including: • Chief Executive Officer of Mackay Sugar for 10 years • Bundaberg Sugar Company as Manager of Millaquin Mill and Bundaberg Refinery. More recently he has worked on a number of sugar-related consulting projects for various clients. Dr Swindells is currently serving a directorship with: • Pelala Pty Ltd. Member – Audit and Risk Committee.
Company Secretary	**Experience, special responsibilities and independence status**
Mr Michael Shannon *BA LLB (Hons), GradDipACG, AGIA*	Appointed Company Secretary and Legal Counsel – 13 January 2014. Mr Shannon is an experienced company secretary and lawyer specialising in corporate and commercial law, risk and compliance. He has worked in private legal practices in Australia and the UK and has performed in-house company secretarial and legal roles at an ASX-listed company and at a large Australian retail banking organisation. He is a Solicitor of the Supreme Court of Queensland, a member of the Queensland Law Society and an Associate of the Governance Institute of Australia. As SRA's Company Secretary, Mr Shannon provides the company secretarial and corporate governance advice to the Chairman, the Board, the CEO and the executive management team. As SRA's Legal Counsel, Mr Shannon is responsible for providing legal advice on all commercial, contractual, intellectual property (IP), procurement and insurance matters and broader legal matters as required.

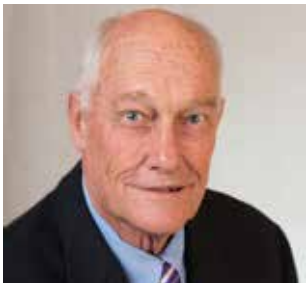
Mr Paul Wright, AM, Chairman.

Dr Helen Garnett.

Mr Mike Gilmour.

Mr Steve Guazzo.

Dr Ian Johnsson.



Mr John Pollock.

Dr Ron Swindells.

Insurance of officers

During the reporting period, the Company paid an insurance premium in respect of an insurance policy for the benefit of Directors, company secretary and other officers of the Company and an additional premium in respect of professional indemnity insurance.

The Directors' and officers' liability insurance policy grants indemnification in respect of certain liabilities for which the *Corporations Act 2001* (Cth) allows indemnification.

In accordance with normal commercial practice and under the terms of the insurance policies, the nature of the liabilities insured against and the amount of premiums paid remained confidential.

Meetings of Directors

The number of Directors' meetings and Board committee meetings held during the reporting period and the number of meetings attended by each Director is set out as follows:

SRA Board and Committee meetings 8 May 2013 to 30 JUNE 2014*						
	Full Board			Board Committees		
	Scheduled	Meetings held between scheduled Board meetings	Total	Audit and Risk	Remuneration and Appointments	Research Funding Panel
Mr Paul Wright AM	11** [11]	1** [2]	12 [13]	-	-	-
Dr Ron Swindells	10 [11]	2 [2]	12 [13]	6 [7]	-	-
Dr Ian Johnsson	11 [11]	2 [2]	13 [13]	-	-	4 [4]
Mr Steve Guazzo	10 [11]	2 [2]	12 [13]	-	1** [1]	-
Mr Mike Gilmour	11 [11]	2*** [2]	13 [13]	7** [7]	-	-
Dr Helen Garnett	9+ [11]	2 [2]	11 [13]	7 [7]	1 [1]	-
Mr John Pollock	9 [11]	2 [2]	11 [13]	-	-	-

Where a Director did not attend all meetings of the Board or relevant committee, the number of meetings for which the Director was eligible to attend is shown in brackets.

* The Company also established a Director Selection Committee that does not comprise any Directors and is comprised of an independent chairman and two representatives from Group M Members and two representatives from Group G Members. This Committee did not hold any meetings during the reporting period.

** Indicates Chair.

*** Mr Gilmour was appointed as interim Chair of a meeting of Directors convened on 11 March 2014 in which Mr Paul Wright was an apology.

\+ Prior to formal acceptance of her directorship, Dr Garnett advised the Board Selection Committee that she had prior commitments until late May 2013 and would be unavailable for the initial two Board meetings. This was accepted by the initial Board Selection Committee.

Company Secretary

Mr Michael Shannon was appointed Company Secretary on 13 January 2014 and continues in the role of Company Secretary as at the date of this report. Prior to Mr Shannon's appointment, the Company Secretary position during the reporting period was held as follows:

Company Secretary	Date appointed	Date ceased
Mr Dominic Nolan	8 May 2013	18 July 2013
Mr Ronald Mullins	8 May 2013	16 July 2013
Ms Jayne Staddon	18 July 2013	14 October 2013
Ms Lisa Swenson	14 October 2013	17 January 2014

Statement of Corporate Governance

A statement of corporate governance is set out in the section of the *Annual Report 2013–14* entitled *Corporate Governance* and these pages form part of this report.

Rounding

The amounts in the financial report have been rounded to the nearest thousand dollars ($'000), or in certain cases, the nearest dollar unless otherwise stated under the option available to the Company under ASIC Class Order 98/100. The Company is an entity to which the Class Order applies.

Registered office

50 Meiers Road

Indooroopilly QLD 4068

Australia

Auditor's independence

The Auditor's Independence Declaration in relation to the audit for the year ended 30 June 2014 as required under section 307C of the *Corporations Act 2001* (Cth) has been received by the Company and is included on page 38 and forms part of the Directors' report for the reporting period ended 30 June 2014.

This report is made in accordance with a resolution of the Board of Directors and is authorised for and on behalf of the Directors by:

Mr Paul Wright (Director)

2 September 2014

Mr Mike Gilmour (Director)

2 September 2014

Lead Auditor's Independence Declaration under Section 307C of the *Corporations Act 2001*

Lead Auditor's Independence Declaration under Section 307C of the Corporations Act 2001

To: the directors of Sugar Research Australia Limited

I declare that, to the best of my knowledge and belief, in relation to the audit for the financial period ended 30 June 2014 there have been:

(i) no contraventions of the auditor independence requirements as set out in the Corporations Act 2001 in relation to the audit; and

(ii) no contraventions of any applicable code of professional conduct in relation to the audit.

KPMG

M L Gray
Partner

Brisbane
1 September 2014

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Statement of profit or loss and other comprehensive income

For the period 8 May 2013 to 30 June 2014

in thousands of dollars	Notes	**2014**
Revenue	*4*	32,755
Other revenue	*5*	640
		33,395
Employee benefits		13,684
Operating expenses	*6*	13,536
Depreciation and amortisation	*11,12*	1,352
		28,572
Results from operating activities		4,823
Finance income		819
Gain from bargain purchase	*17*	55,357
Impairment loss on asset acquired in business combination	*12*	(8,900)
Net gain from business combinations		46,457
Profit for the period		52,099
Other comprehensive income		-
Total other comprehensive income		-
Total comprehensive income		52,099

The above statement of profit or loss and other comprehensive income should be read in conjuction with the accompanying notes.

Statement of financial position

As at 30 June 2014

in thousands of dollars	Notes	2014
Assets		
Cash and cash equivalents	*8*	30,349
Trade and other receivables	*10*	2,791
Prepayments		72
Total current assets		33,212
Property plant and equipment	*11*	22,442
Intangible assets	*12*	104
Total non current assets		22,546
Total assets		55,758
Liabilities		
Trade and other payables	*13*	1,194
Employee benefits		1,994
Total current liabilities		3,188
Employee benefits		471
Total non current liabilities		471
Total liabilities		3,659
Net assets		52,099
Equity		
Retained earnings		52,099
Total equity		52,099

The above statement of financial position should be read in conjuction with the accompanying notes.

Statement of changes in equity

For the period 8 May 2013 to 30 June 2014

in thousands of dollars	**2014**
Balance at 8 May 2013	-
Total comprehensive income	
Profit	52,099
Other comprehensive income	-
Total comprehensive income for the period	52,099
Balance at 30 June 2014	52,099

The above statement of changes in equity should be read in conjuction with the accompanying notes.

Statement of cash flows

For the period 8 May 2013 to 30 June 2014

in thousands of dollars	Notes	**2014**
Operating activities		
Receipts from Statutory Authority and industry		31,208
Payments to suppliers and employees		(26,070)
Net cash from operating activities	9	5,138
Investing activities		
Interest received		819
Payments to acquire property plant and equipment		(1,126)
Proceeds from sale of property, plant and equipment		41
Payments to acquire intangibles and other long term assets	12	(61)
Cash received in business combinations	17	25,538
Net cash from investing activities		25,211
Financing activities		
Net cash from financing activities		-
Net increase in cash and cash equivalents		30,349
Cash and cash equivalents at beginning of period		-
Cash and cash equivalents at end of period	8	30,349

The above statement of cashflows should be read in conjuction with the accompanying notes.

For the period 8 May 2013 to 30 June 2014

01. Reporting entity

Sugar Research Australia Limited (the Company) is a not-for-profit company limited by guarantee, domiciled and incorporated in Australia.

The Company was incorporated on the 8 May 2013. The Board of Directors have determined under section 323D of the Corporations Act (2001) that the first reporting period is from 8 May 2013 to 30 June 2014.

The Company's registered office is at 50 Meiers Rd, Indooroopilly, Brisbane. The Company primarily invests in and manages a portfolio of research, development and extension (RD&E) projects that drive productivity, profitability and sustainability for the Australian sugarcane industry.

02. Basis of preparation

(a) Statement of compliance

These financial statements are Tier 2 general purpose financial statements which have been prepared in accordance with Australian Accounting Standards - Reduced Disclosure Requirements adopted by the Australian Accounting Standards Board and the Corporations Act (2001).

Tier 2 reporting, which comprises the same recognition and measurement requirements of Tier 1 (standard reporting) but with substantially reduced disclosure requirements, assists users by providing a clearer and less technical explanation of the results of the Company.

These financial statements were authorised for issue by the Board of Directors on 2 September, 2014.

(b) Basis of Measurement

These financial statements have been prepared on the historical cost basis.

(c) Functional and presentation currency

These financial statements are presented in Australian dollars, which is the Company's functional currency.

The Company is of a kind referred to in ASIC Class Order 98/100 dated 10 July 1998 and in accordance with that Class Order, all financial information presented in Australian dollars has been rounded to the nearest thousand unless otherwise stated.

(d) Use of judgements and estimates

The preparation of financial statements in conformity with Australian Accounting Standards – Reduced Disclosure Requirements requires management to make judgements, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected.

Information about critical judgements in applying accounting policies that have the most significant effect on the amounts recognised in the financial statements is included in the following note:

- Note 12 – Intangible assets

03. Significant accounting policies

The accounting policies set out below have been applied consistently for the period presented in these financial statements.

(a) Determination of fair values

A number of the Company's accounting policies and disclosures require the determination of fair value, for both financial and non-financial assets and liabilities. When applicable, further information about the assumptions made in determining fair values is disclosed in the notes specific to that asset or liability.

(b) Business combinations

Business combinations are accounted for using the acquisition method as at the acquisition date – i.e. when control is transferred to the Company. Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities.

The Company measures goodwill at the acquisition date as:

- the fair value of the consideration transferred; plus
- the recognised amount of any non-controlling interests in the acquiree; plus
- if the business combination is achieved in stages, the fair value of the existing equity interest in the acquiree; less
- the net recognised amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

When the excess is negative, a bargain purchase gain is recognised in the profit or loss on the date of acquisition. The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognised in the profit or loss. Transaction costs that the Company incurs in connection with a business combination are expensed as incurred.

(c) Foreign currency transactions

Transactions in foreign currencies are translated to the functional currency of the Company at exchange rates at the dates of the transactions.

(d) Revenue

Revenue is recognised to the extent that it is probable that the economic benefits will flow to the entity and the revenue can be reliably measured.

(e) Employee benefits

(i) Defined contribution plans

A defined contribution plan is a post-employment benefit plan under which an entity pays fixed contributions into a separate entity and has no legal or constructive obligation to pay further amounts for example, a superannuation plan. Obligations for contributions to defined contribution plans are recognised as an employee benefit expense in the profit or loss in the periods during which related services are rendered by employees. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in future payments is available.

03. Significant accounting policies (continued)

(e) Employee benefits (continued)

(ii) Short-term employee benefits

Short-term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided. A liability is recognised for the amount expected to be paid under short-term cash bonus if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(iii) Other long-term employee benefits

The Company's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods. That benefit is discounted to determine its present value. The discount rate is the yield at the reporting date on government bonds that have maturity dates approximating the terms of the Company's obligations.

(iv) Termination benefits

Termination benefits are expensed at the earlier of when the Company can no longer withdraw the offer of those benefits and when the Company recognises costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the end of the reporting period, then they are discounted.

(f) Income Tax

The Company is exempt from income tax under Division 50 of the Income Tax Assessment Act 1997, as amended. Under this division the Company is considered to be classified as an entity established for the purpose of promoting the development of various Australian resources, including agricultural resources and not carried on for the profit or gain of its individual members.

(g) Cash and cash equivalents

Cash and cash equivalents comprise cash balances and call deposits with original maturities three months or less from the acquisition date that are subject to an insignificant risk of change in fair value, and are used by the Company in the management of its short-term commitments.

(h) Financial instruments

(i) Non-derivative financial assets

The Company initially recognises loans and receivables on the date that they are originated. All other financial assets are recognised initially on the trade date, which is the date that the Company becomes a party to the contractual provisions of the instrument.

The Company derecognises a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred. Any interest in such transferred financial assets that is created or retained by the Company is recognised as a separate asset or liability.

Financial assets and liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Company has a legal right to offset the amounts and intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

The Company classifies non-derivative financial assets into the category of "loans and receivables".

03. Significant accounting policies (continued)

(h) Financial instruments (continued)

(i) Non-derivative financial assets (continued)

Loans and receivables
Loans and receivables are financial assets with fixed or determinable payments that are not quoted in an active market but excludes cash equivalents. Such assets are recognised initially at the transaction price. Subsequent to initial recognition, loans and receivables are measured at amortised cost using the effective interest method, less any impairment losses see Note 3(k)(i).

Loans and receivables comprise trade and other receivables.

(ii) Non-derivative financial liabilities

The Company initially recognises all financial liabilities on the trade date at which the Company becomes a party to the contractual provisions of the instrument.

The Company derecognises a financial liability when its contractual obligations are discharged, cancelled or expire.

The Company classifies non-derivative financial liabilities into the other financial liabilities category. Such financial liabilities are recognised initially at fair value less any directly attributable transaction costs. Subsequent to initial recognition, these financial liabilities are measured at amortised cost using the effective interest rate method.

Other financial liabilities comprise trade and other payables.

(i) Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and accumulated impairment losses.

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the following:

- the cost of materials,
- any other costs directly attributable to bringing the assets to a working condition for their intended use,
- when the Company has an obligation to remove the assets or restore the site, an estimate of the costs of dismantling and removing the items and restoring the site on which they are located.

Purchased software that is integral to the functionality of the related equipment is capitalised as part of that equipment.

When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items (major components) of property, plant and equipment.

Any gains and losses on disposal of an item of property, plant and equipment (calculated as the difference between the net proceeds from disposal and the carrying amount of the item) is recognised in the profit or loss.

03. Significant accounting policies (continued)

(i) Property, plant and equipment (continued)

(ii) Subsequent costs

Subsequent expenditure is capitalised only when it is probable that the future economic benefits associated with the expenditure will flow to the Company. Ongoing repairs and maintenance are expensed as incurred.

(iii) Depreciation

Items of property, plant and equipment are depreciated from the date that they are installed and are ready for use, or in respect of internally constructed assets, from the date that the asset is completed and ready for use.

Depreciation is calculated to write off the cost of property, plant and equipment less their estimated residual values using the straight-line basis over their estimated useful lives. Depreciation is generally recognised in the profit or loss, unless the amount is included in the carrying amount of another asset. Land is not depreciated.

The estimated useful lives for the current year of significant items of property, plant and equipment are as follows:

- buildings 5 - 40 years
- plant and equipment 3 - 40 years
- fixtures and fittings 2 - 15 years

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(j) Intangible assets

(i) Research and development

Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognised in the profit or loss as incurred.

Development activities involve a plan or design for the production of new or substantially improved products and processes. Development expenditure is capitalised only if development costs can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable, and the Company intends to, and has sufficient resources to, complete development and to use or sell the asset. The expenditure capitalised includes the cost of materials, direct labour and overhead costs that are directly attributable to preparing the asset for its intended use, and capitalised borrowing costs. Other development expenditure is recognised in the profit or loss as incurred.

Capitalised development expenditure is measured at cost less accumulated amortisation and any accumulated impairment losses.

(ii) Subsequent expenditure

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognised in the profit or loss as incurred.

03. Significant accounting policies (continued)

(j) Intangible assets (continued)

(iii) Amortisation

Intangible assets, less amount impaired, are amortised on a straight-line basis in the profit or loss over their estimated useful lives, from the date that they are available for use.

The estimated useful lives for the current year are as follows:

- Software 2 - 10 years

Amortisation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

(k) Impairment

(i) Non-derivative financial assets

A financial asset not classified at fair value through the profit or loss is assessed at each reporting date to determine whether there is objective evidence that it is impaired. A financial asset is impaired if there is objective evidence of impairment as a result of one or more events that occurred after the initial recognition of the asset, and that the loss event(s) had a negative effect on the estimated future cash flows of that asset that can be estimated reliably.

Objective evidence that financial assets are impaired includes default or delinquency by a debtor, restructuring of an amount due to the Company on terms that the Company would not consider otherwise, indications that a debtor or issuer will enter bankruptcy, adverse changes in the payment status of borrowers or issuers, economic conditions that correlate with defaults or the lack of presence of an active market.

Financial assets measured at amortised cost

The Company considers evidence of impairment for financial assets measured at amortised cost (loans and receivables and held-to-maturity financial assets) at both a specific asset and collective level. All individually significant assets are assessed for specific impairment. Those found not to be specifically impaired are then collectively assessed for any impairment that has been incurred but not yet identified. Assets that are not individually significant are collectively assessed for impairment by grouping together assets with similar risk characteristics.

In assessing collective impairment the Company uses trends of the probability of default, timing of recoveries and the amount of loss incurred, adjusted for management's judgement as to whether current economic and credit conditions are such that the actual losses are likely to be greater or lesser than suggested by trend analysis.

(ii) Non-financial assets

The carrying amounts of the Company's non-financial assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. An impairment loss is recognised if the carrying amount of an asset cash-generating unit (CGU) exceeds its recoverable amount.

The recoverable amount of an asset or CGU unit is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs.

Impairment losses are recognised in the profit or loss. Impairment losses recognised in respect of CGUs are allocated to reduce the carrying amounts of assets in the CGU (or group of CGUs) on a pro rata basis.

An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

03. Significant accounting policies (continued)

(l) Provisions

A provision is recognised if, as a result of a past event, the Company has a present legal or constructive obligation that can be estimated reliably, and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as a finance cost.

(m) Leases

(i) Lease assets

Assets held under operating leases are not recognised in the Company's statement of financial position.

(ii) Lease payments

Payments made under an operating lease are recognised in the profit or loss on a straight line basis over the term of the lease. Lease incentives received are recognised as an integral part of the total lease expense, over the term of the lease.

(n) New standards and interpretations not yet adopted

A number of new standards, amendments to standards and interpretations are effective for annual periods beginning after 1 July 2013, and have not been applied in preparing these financial statements. Those which may be relevant to the Company are set out below. The Company does not plan to adopt these standards early.

- **AASB 9 Financial Instruments (2013), AASB 9 Financial Instruments (2010) and AASB 9 Financial Instruments (2009) (together AASB 9)**

  AASB 9 (2009) introduces new requirements for the classification and measurement of financial assets. Under AASB 9 (2009), financial assets are classified and measured based on the business model in which they are held and the characteristics of their contractual cash flows. AASB 9 (2010) introduces additional changes relating to financial liabilities. The IASB currently has an active project to make limited amendments to the classification and measurement requirements of AASB 9 and add new requirements to address the impairment of financial assets.

  AASB 9 (2013) introduces new requirements for hedge accounting.

  AASB 9 is effective for annual periods beginning on or after 1 January 2018. The effective date is subject to review pending the finalisation of the outstanding phases of the standard. However, early adoption is permitted. The extent of the impact has not yet been determined.

04. Revenue from operating activites

in thousands of dollars	**2014**
Industry contribution	19,542
Commonwealth matching contribution	6,692
Queensland government contribution	4,031
Collaboration income	1,971
Sale of cane	519
	32,755

A statutory funding agreement is in place between the Commonwealth Government of Australia (Commonwealth) and Sugar Research Australia Limited. This agreement establishes terms on which the Commonwealth remits industry contributions toward research and development to the Company. The agreement also establishes the terms for Commonwealth matching contributions. Commonwealth matching contributions matches industry contributions dollar for dollar to a maximum level of 0.5% of the gross annual value of production of the sugar industry, provided conditions of the agreement are met.

Collaboration income are the contributions received from third parties where the Company is collaborating with them to achieve project objectives.

05. Other revenue

in thousands of dollars	**2014**
Lease and rental income	135
Sundry income	491
Profit on sale of assets	14
	640

06. Operating expenses

in thousands of dollars	**2014**
External research providers	4,622
Asset and property management	2,434
Professional and consulting	2,239
Research consumables	1,109
Industry consultation	484
Registrations, subscriptions and licences	445
Telecommunications	409
Other operating costs	1,794
	13,536

07. Operating leases

At the end of the reporting period, the future minimum lease payments under non-cancellable operating lease are payable as follows.

in thousands of dollars	**2014**
Less than one year	406
Between one and five years	630
More than five years	-
	1,036

During the period ended 30 June 2014 $511 thousand was recognised as an expense in the profit and loss in respect of cancellable and non-cancellable operating leases.

08. Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and balances with banks, and investments in on call term deposits. Cash and cash equivalents included in the statement of cash flows comprise the following amounts in the statement of financial position:

in thousands of dollars	**2014**
Bank balances	3,156
Call deposits	27,193
Cash and cash equivalents	30,349
Cash and cash equivalents in the statement of cash flows	30,349

Cash and cash equivalents are held with bank and financial institution counterparties, which are rated AA or better, based on rating agency Standard and Poor's ratings.

09. Cash flow reconciliation

in thousands of dollars	**2014**
Profit for the period	52,099
Adjustments for:	
Depreciation and amortisation	1,352
Impairment loss	8,900
Interest received	(819)
Profit from sale of property, plant and equipment	(14)
Gain from bargain purchase	(55,357)
Change in working capital and provisions:	
Increase in trade and other receivables, and prepayments	(2,177)
Increase in payables	842
Increase in provisions for employee benefits	312
Net cash from operating activities	5,138

10. Trade and other receivables

in thousands of dollars	*Note*	**2014**
Accrued income		1,934
Other trade receivables		857
		2,791
Current		2,791
Non-current		-
		2,791

11. Property, plant and equipment

in thousands of dollars	**Land and buildings**	**Plant and equipment**	**Office equipment**	**Total**
Cost				
Balance at 8 May 2013	-	-	-	-
Assets acquired as part of business combinations	17,842	4,386	387	22,615
Additions	68	835	223	1,126
Disposals	-	(31)	-	(31)
Balance at 30 June 2014	17,910	5,190	610	23,710
Accumulated depreciation and impairment				
Balance at 8 May 2013	-	-	-	-
Depreciation for the period	(260)	(852)	(160)	(1,272)
Disposals	-	4	-	4
Balance at 30 June 2014	(260)	(848)	(160)	(1,268)
Carrying amounts				
at 8 May 2013	-	-	-	-
at 30 June 2014	17,650	4,342	450	22,442

12. Intangible assets

in thousands of dollars	Software	Intellectual Property	Total
Cost			
Balance at 8 May 2013	-	-	-
Asset acquired in business combination	123	8,900	9,023
Additions	61	-	61
Balance at 30 June 2014	184	8,900	9,084
Accumulated amortisation and impairment losses			
Balance at 8 May 2013	-	-	-
Amortisation for the period	(80)	-	(80)
Impairment loss	-	(8,900)	(8,900)
Balance at 30 June 2014	(80)	(8,900)	(8,980)
Carrying amounts			
at 8 May 2013	-	-	-
at 30 June 2014	104	-	104

Impairment charge

Plant breeders' rights, with a fair value of $8,900 thousand were acquired on 2 August 2013 as part of a business combination involving the acquisition of most activities of BSES Limited by the Company.

The Company has assessed the recoverable amount of the plant breeders' rights (PBR) as at 5 August 2014 to be nil. The PBRs were acquired as part of the business combination and transfer of assets from BSES Limited. The main source of funding of the Company is the receipt of a Statutory Levy and as a result there are no cash flows from PBRs in the Company and an $8,900 thousand impairment loss has been recognised in the statement of profit or loss and other comprehensive income

13. Trade and other payables

in thousands of dollars	*Note*	2014
Trade payables		385
Other payables and accrued expenses		809
		1,194
Current		1,194
Non-current		-
		1,194

14. Employee benefits

Defined contribution superannuation plans

The Company has paid contributions of $1,230 thousand to defined contributions plans on behalf of employees for the reporting period.

15. Contingencies and commitments

The Company has outstanding milestone commitments of $ 11,331 thousand as at 30 June 2014.

16. Capital and reserves

The Company is a company limited by guarantee, and as such, does not have share capital. The Company's capital consists of financial assets and retained earnings.

Membership is divided into grower members (group G) and miller members (group M). At the reporting date there were 2,250 group G members and 7 group M members guaranteeing to contribute up to $2.00 each to the property of the Company in the event of it being wound up.

17. Business combinations

The Company was declared as the industry services body for the Australian sugar industry on 5 August 2013 after passage of the following legislation by the Commonwealth Parliament on 28 June 2013:

- Sugar Research and Development Services Act 2013
- Sugar Research and Development Services (Consequential Amendments and Transitional Provisions) Act 2013
- Sugar Research and Development Services (Consequential Amendments - Excise) Act 2013

During the reporting period the Company acquired the assets and most activities of BSES Limited and the Sugar Research and Development Corporation.

BSES Limited was the principal provider of research, development and extension to the Australian sugar industry. BSES Limited is currently in external administration.

Sugar Research and Development Corporation was a statutory authority of the Australian Government, established under the Primary Industries and Energy Research and Development Act 1989. It was abolished on the 30 September 2013 as part of the creation of the industry services body.

The date of acquisition for each undertaking is as follows:-

BSES Limited	2 August 2013
Sugar Research and Development Corporation	1 July 2013

The Company did not provide any consideration for the acquisition.

The identifiable assets acquired and liabilities assumed at fair market value for each entity is as follows:-

in thousands of dollars	**BSES Limited**	**SRDC**	**Total**
Cash & cash equivalents	16,717	8,821	25,538
Receivables and prepayments	686	-	686
Property, plant and equipment	22,614	-	22,614
Intangible assets	9,024	-	9,024
Trade and other payables	(352)	-	(352)
Employee benefits	(2,153)	-	(2,153)
Net assets	46,536	8,821	55,357

Net assets acquired have been recognised in the profit and loss as a gain from a bargain purchase.

18. Related parties

Key management personnel compensation

The key management personnel compensation was $1,872,875 for the reporting period.

Directors' declaration

In the opinion of the directors of Sugar Research Australia Limited ('the Company'):

(a) the financial statements and notes that are set out on pages 39-54 are in accordance with the *Corporations Act 2001*, including:

(i) giving a true and fair view of the Company's financial position as at 30 June 2014 and of its performance, for the financial period ended on that date; and

(ii) complying with Australian Accounting Standards – Reduced Disclosure Regime and the Corporations Regulations 2001; and

(b) there are reasonable grounds to believe that the Company will be able to pay its debts as and when they become due and payable.

Signed in accordance with a resolution of the directors:

Dated at Brisbane day of 2 September 2014.

Paul Wright

Director

Independent Auditor's Report to the Members of Sugar Research Australia Limited

Independent auditor's report to the members of Sugar Research Australia Limited

We have audited the accompanying financial report of Sugar Research Australia Limited (the Company), which comprises the statement of financial position as at 30 June 2014, and the statement of profit or loss and other comprehensive income, statement of changes in equity and statement of cash flows for the period 8 May 2013 to 30 June 2014, notes 1 to 18 comprising a summary of significant accounting policies and other explanatory information, and the directors' declaration.

Directors' responsibility for the financial report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards – Reduced Disclosure Requirements and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the financial report that is free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We conducted our audit in accordance with Australian Auditing Standards. These Auditing Standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial report that gives a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the financial report.

We performed the procedures to assess whether in all material respects the financial report presents fairly, in accordance with the *Corporations Act 2001* and Australian Accounting Standards – Reduced Disclosure Requirements, a true and fair view which is consistent with our understanding of the Company's financial position and of its performance.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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Independence

In conducting our audit, we have complied with the independence requirements of the *Corporations Act 2001*. We confirm that the independence declaration required by the *Corporations Act 2001*, which has been given to the directors of Sugar Research Australia Limited on 1 September 2014, would be in the same terms if given to the directors as at the time of this auditor's report.

Auditor's opinion

In our opinion the financial report of Sugar Research Australia Limited is in accordance with the *Corporations Act 2001*, including:

(a) giving a true and fair view of the Company's financial position as at 30 June 2014 and of its performance for the period ended on that date; and

(b) complying with Australian Accounting Standards – Reduced Disclosure Requirements and the Corporations Regulations 2001.

KPMG

M L Gray
Partner

Brisbane

4 September 2014

Appendices

Dr Geoff Kent, Principal Research Fellow at QUT's Centre for Tropical Crops and Biocommodities, presents research findings at the SRA-sponsored Regional Research Seminar in Bundaberg.

Appendix A

Annual reporting compliance checklist

The following checklist shows SRA's compliance with key annual reporting requirements completed during the reporting period commencing on the date of incorporation of SRA, being 8 May 2013, up to and including 30 June 2014 in accordance with the Company's Constitution, the *Corporations Act 2001* (Cth), the *Sugar Research and Development Services Act 2013* (Cth) and the Statutory Funding Agreement.

Annual reporting requirements	What SRA delivered 8 May 2013 – 30 June 2014
Annual Report requirements – SRA Constitution (rules 22.6, 24.3)	
The Board must include in the Annual Report for each financial year: • a report on the operations of the Committees specified in the Constitution during the year; and • a report on the operations of the code of conduct during the year including how the Board dealt with material breaches (if any).	*Annual Report 2013–14 pages 28-30* include a report on the operations of each Committee; and *Annual Report 2013–14 page 28* includes a report on the operations of the SRA Code of Conduct.
Annual reporting to members of a company limited by guarantee – *Corporations Act 2001* (Cth) (section 316A)	
A member of a company limited by guarantee may, by notice in writing to the company, elect to receive a hard copy or an electronic copy of the: • the financial report; and • the directors' report; and • the auditor's report. The company must send a copy of the above listed reports, free of charge, to each member who has made an election for that financial year, in accordance with the election, by the earlier of: • 21 days before the next AGM after the end of the financial year; and • four months after the end of the financial year.	*Annual Report 2013–14 pages 32-57* contains the financial report, directors' report and auditor's report. Members have been advised in the Notice of Annual General Meeting dated on or about 19 September 2014 that they may, by notice in writing, elect to receive a hard copy or an electronic copy of the financial report, directors' report and auditor's report. An electronic copy was made available to the members via the SRA website: www.sugarresearch.com.au
Laying reports before AGM – *Corporations Act 2001* (Cth) (section 317)	
The directors of a public company must lay before the AGM: • the financial report; and • the directors' report; and • the auditor's report, for the last financial year that ended before the AGM.	*Annual Report 2013–14* to be presented to inaugural AGM scheduled for 22 October 2014.
Lodging Annual Report with ASIC – *Corporations Act 2001* (Cth) (section 319)	
A company must lodge the Annual Report with the Australian Securities & Investments Commission (ASIC) within four months after the end of the financial year.	*Annual Report 2013–14* to be sent to ASIC within four months after the end of the financial year.

Annual reporting requirements *(continued)*	What SRA delivered 8 May 2013 – 30 June 2014
Annual Report to include any direction from the Minister – *Sugar Research and Development Services Act 2013* (Cth) (section 11(4))	
The Industry Services Body must, within 14 days of lodging a financial report (the Annual Report), give the Minister for Agriculture a copy of the report. The report must comply with section 295 of the *Corporations Act 2001* and section 11 of the *Sugar Research and Development Services Act 2013* (Cth).	Upon filing of the Annual Report with ASIC, a copy will be provided to the Minister for Agriculture within 14 days. No written direction was received by SRA from the Minister for Agriculture, pursuant to section 11 of the *Sugar Research and Development Services Act 2013* (Cth) as Industry Services Body during the reporting period.
Provision of Annual Report to the Commonwealth – Statutory Funding Agreement (clauses 12.6, 12.7, 12.8 and 12.9)	
SRA to do certain things as follows: • must prepare an Annual Report complying with the *Corporations Act 2001* (Cth) and the requirements of the Statutory Funding Agreement; and • must provide four copies to the Commonwealth by 31 December 2014; and • the Annual Report should include a reasonably comprehensive coverage of matters listed in clauses 12.9(a)–(m) of the Statutory Funding Agreement.	*Annual Report 2013–14:* four copies to be provided to the Department of Agriculture (Cth) by 31 December 2014. *Annual Report 2013–14* addresses, where appropriate, coverage of matters listed in clauses 12.9(a)–(m) of the Statutory Funding Agreement.

Appendix B

List of delegates per mill area/group

Mill area/Mill group	Processing Plant/Mill	Group G Delegates	Group M Delegates
Mossman	Mossman	Brett Coulthard	Quinton Hildebrand
Tableland	Tableland	*No nominations received*	Trevor Crook
Mulgrave	Mulgrave	Jeffrey Day	Trevor Crook
South Johnstone	South Johnstone	Joseph Marano	Trevor Crook
Tully	Tully	Thomas Harney	Alick Osborne
Wilmar Mill Group (Herbert)	Victoria Macknade	Jeffrey Cantamessa Christopher Bosworth	Paul Britton
Wilmar Mill Group (Burdekin)	Invicta Pioneer Inkerman Kalamia	Cy Kovacich Arthur Woods Laurence Dal Santo Colin Ivory	Ian Davies Julian Venning
Proserpine	Proserpine	Anthony Large	Peter Larsen
MSL Mill Group (Central)	Farleigh Marian Racecourse	Lee Blackburn Michael Deguara Bill MacDonald	Quinton Hildebrand
Plane Creek	Plane Creek	Malcolm Langdon	Peter Larsen
Bundaberg Sugar Mill Group (South)	Bingera Millaquin	Jay Hubert Kelvin Griffin	Gary Nixon
Isis	Isis	Neil Kingston	John Gorringe
Maryborough	Maryborough	Elton Peterson	Trevor Crook
Rocky Point	Rocky Point	Greg Zipf	David Heck (appointed 31 July 2014)
NSW Sugar Co-op Mill Group	Condong Broadwater Harwood	David Bartlett Wayne Rogers Ross Farlow	Chris Connors James Sneesby Ian Causley

Appendix C

2013/14–2017/18 Strategic Plan summary

See pages 63-64.

Our vision	**Delivering valued solutions for a growing Australian sugar industry**			
Our key focus areas	**1. Optimally adapted varieties, plant breeding and release**	**2. Soil health and nutrient management**	**3. Pest, disease and weed management**	**4. Farming systems and production management**
Our objectives	• World-class variety development. • Enhanced variety breeding, selection and release. • Collaborative, interdisciplinary and systems approach to RD&E.	• Understood and improved soil health issues. • Understood impacts of on-farm practices on water quality. • Improved methods and tools to enable, or improve, cane production on poor performing or marginal soils.	• Enhanced biosecurity capability. • Minimised economic and environmental impacts of pests, diseases and weeds through targeted research.	• Research leading to the optimal use of inputs on-farm. • Research on planting technologies, ratoonability, break-crop and fallow practices to optimise yields. • Practical application of the value chain model to enhance grower, harvester and miller interfaces and improved adoption of harvesting best-practices.
Our deliverables	• Locally-adapted cane varieties. • Enhanced collaboration with growers, millers and productivity services groups. • Increased regional trials and releases. • Earlier communication and dissemination of information, including variety selection tools. • Diagnostic and advisory services. • Research collaborations.	• Identification of soil health factors. This will include R&D covering crop nutrition; soil biology; soil fertility; regional soil factors; chemical utilisation; and reduction of soil pathogens and nematodes. • Practices to reduce chemical inputs and nutrient losses. • Review of SIX EASY STEPS™. • Rapid soil screening technologies.	• Plant and molecular screening. • Integrated pest and weed management systems. • Pest and weed control strategies and technologies. • Herbicide-resistant cane varieties. • Alternative chemical treatments. • Updated management dossiers on key exotic threats.	• Precision-agriculture techniques and resources. • Best-practice information. • Improved planting technology and crop establishment. • Harvesting best-practice regional trials and demonstration.
Our measures of success	• 3 varieties which meet the above expectations released per 5-year period for each region. • Percent production from new varieties (<7 years since release). • Rate of genetic gain (tonnes of cane per hectare (TCH), commercial cane sugar (CCS), tonnes of sugar per hectare (TSH)). • Weighted average disease ratings for varieties in each region.	• Soil health indicators developed for sustainable sugarcane production. • Guidelines, mechanisms and/or varieties identified for increasing nutrient use-efficiency within plant and ratoon crops. • Guidelines and mechanisms developed for minimising chemical and nutrient losses and understanding water quality. • SIX EASY STEPS™ nutrient management program reviewed with improvements made where necessary. • Guidelines for implementation of PA developed.	• Industry supported through effective pest, disease and weed diagnostic capabilities and awareness and training programs. • Development and adoption of SRA-developed packages for integrated management of key pests, diseases and weeds. • Weighted average disease ratings for varieties in each region. • Up-to-date dossiers to support contingency plans to minimise threats and impacts of key exotics. • Capability to provide entomology, pathology and weed expertise to meet the pest, disease and weed diagnostic and management needs of the industry.	• Methodology for more rapid and efficient bulking of sugarcane varieties. • Adoption of a better sugarcane planting technology. • Improved crop performance over longer cropping cycles. • Better crop management under conditions of water stress (too much and too little). • Adoption of PA technology and techniques. • Adoption of harvesting best-practice.
Industry benefits	• Increased cane and sugar yields. • Climate tolerant varieties. • Pest and disease resistance. • Reduced inputs. • Improved ratoonability. • Increased regional trials and releases. • Faster varietal adoption.	• Improved soil health. • Reduced impact of off-farm run-off. • Improved production on marginal soils. • Improved reputation and relationship with community and environmental groups.	• Enhanced capacity to deal with incursions of exotic pests, diseases and weeds. • Minimised economic and environmental impacts.	• Adoption of agronomic and harvesting best-practices. • Optimised yields. • Optimised use of inputs. • Reduced operational costs.
Industry outcomes	**Industry growth**	**Profitability**		**Economic**

Our purpose	Undertaking targeted research, development and extension (RD&E) programs for the sugar industry		
5. Milling efficiency and technology	**6. Product diversification and value addition**	**7. Knowledge and technology transfer and adoption**	**8. Capability development, attraction and retention**
• Review of logistics management to reduce operational costs and improve mill capacity utilisation. • New or improved processes, technology and/or infrastructure to increase mill processing efficiency. • Possible solutions to address quality issues.	• Ongoing research to identify and/or develop alternative products or uses for sugarcane and determine the basic requirements for adoption. • Economic feasibility studies of identified industry byproducts, their use and likely market viability.	• Coordinated extension that optimises innovation and adoption at the farm level and encourages research that meets the needs of the industry. • Inclusion of extension mechanisms in research proposals. • Enhanced communication and transfer tools to disseminate research findings to end-users and facilitate their uptake by growers and millers. • Assessment of the uptake of developed technologies and evaluate the effectiveness of technology transfer tools.	• Review of current and future RD&E skills and capacity needs for the sugarcane industry. • Development and retention of current industry participants, as well as attraction of new participants to the sugarcane industry. • Fostered collaboration for cross-industry and cross-sectoral skill development, innovation and networks.
• Optimised milling processes and technology.	• Industry supply chain analysis. • Exploration of alternative processing options and products. • Feasibility analysis of alternative products.	• Translational research approach. • Collaborative extension. • Enhanced research and technology extension. • Multi-media extension.	• Industry RD&E skills and capability assessment. • Scholarship program. • Participative and collaborative partnerships. • Succession planning. • Performance management framework.
• Adoption of improved or novel milling processes and technology.	• Sugar industry supply chain analysis completed. • Identification of new opportunities in product diversification and innovation.	• Joint planning of research translation and extension programs with other stakeholders. • Effective delivery of extension messages, as demonstrated through research uptake. • Increased awareness of technological innovations, locally and internationally. • Research outputs' key RD&E messages are promoted in a timely manner through various channels. • Increased support for and participation in SRA delivery networks, events and extension programs.	• Published results of industry RD&E skills and capability assessment and recommended strategies in National Sugarcane Industry RD&E Strategy. • SRA participation and investment in relevant collaborative and cross-sectoral RD&E programs. • Increased availability of skilled industry personnel. • SRA sponsored Young Industry Participants' Forum held annually. • Development and uptake of new and existing knowledge transfer or training programs or resources. • Scholarships awarded to current and future industry participants.
• Improved mill capacity utilisation. • Improved mill processing efficiency. • Improved quality. • Optimised mill transport and logistics.	• Alternative products or uses for sugarcane. • Economic feasibility of industry byproducts.	• Skilled advisory sector that drives the adoption of new technology and practices. • Improved collaboration and coordination of extension services. • Improved communication, knowledge transfer and adoption.	• Attraction and retention of industry participants. • Highly-skilled industry workforce. • Cross-industry and cross-sectoral collaboration. • Connected and respected.
viability	Sustainability		Diversification

Appendix D

Alignment to industry and government priorities

Stakeholder priorities	SRA key areas of focus							
	1. Optimally adapted varieties, plant breeding and release	2. Soil health and nutrient management	3. Pest, disease and weed management	4. Farming systems and production management	5. Milling efficiency and technology	6. Product diversification and value addition	7. Knowledge and technology transfer and adoption	8. Capability development, attraction and retention
Statement on Priorities for Research 2011-2014 – Key Issues for Research Action[1]								
1. Industry growth: need to stop decline and build to 36Mtpa, including by RD&E to increase yield and achieve step-change in productivity								
2. Cost and profitability: of cane and sugar production, across different farm types and mills, including by RD&E on efficiency along the value chain								
3. Environmental and regulatory pressures: including by RD&E into water, chemicals and technologies/systems to lift environmental sensitivity								
4. Diversification: biomass, fuel and new products								
Strategic Research Priorities[2]								
1. Living in a changing environment								
2. Promoting population health and wellbeing								
3. Managing our food and water assets								
4. Securing Australia's place in a changing world								
5. Lifting productivity and economic growth								

1 *Statement on Priorities for Research 2011-2014*, Australian Sugar Industry Alliance, 2011.

2 *Strategic Research Priorities*, Australian Government, 2013.

Stakeholder priorities	SRA key areas of focus							
	1. Optimally adapted varieties, plant breeding and release	2. Soil health and nutrient management	3. Pest, disease and weed management	4. Farming systems and production management	5. Milling efficiency and technology	6. Product diversification and value addition	7. Knowledge and technology transfer and adoption	8. Capability development, attraction and retention
Rural Research and Development Priorities[3]								
1. Productivity and adding value								
2. Supply chain and markets								
3. Natural resource management								
4. Climate variability and climate change								
5. Biosecurity								
6. Innovation Skills								
7. Technology								
Queensland's Agriculture Strategy – Pathways to Growth[4]								
1. Securing and increasing resource availability								
2. Driving productivity growth across the supply chain								
3. Securing and increasing market access								
4. Minimising the costs of production								
National Sugarcane Industry RD&E Strategy – Goals[5]								
1. A growth industry, successfully competing in the world market, through profitable businesses								
2. Successful diversification into related sugarcane products, using world-class research and development								
3. Global leaders in environmental sustainability								
4. Dynamic and cooperative industry leadership								

3 *Rural Research and Development Priorities*, Department of Agriculture, 2007.

4 Queensland's Agriculture Strategy, Department of Agriculture, Fisheries and Forestry, 2013.

5 *National Sugarcane Industry RD&E Strategy*, 2010.

Appendix E

Glossary of acronyms and defined terms

ASA	Australian Sugar Industry Alliance
ACFA	Australian Cane Farmers Association
APPS	Australasian Plant Pathology Society
APVMA	Australian Pesticides and Veterinary Medicines Authority
ASIC	Australian Securities & Investments Commission
ASMC	Australian Sugar Milling Council
ASSCT	Australian Society of Sugar Cane Technologists
BMP	Best Management Practice
BPS	Burdekin Productivity Services Ltd
BSES	BSES Limited
CANEGROWERS	CANEGROWERS Queensland
CEO	Chief Executive Officer
CRRDC	Council of Rural Research and Development Corporations
CRT	Combined Rural Traders
C-START	Centre for Spray Technology Application Research and Training
(Cth)	Commonwealth
DA	Department of Agriculture (Commonwealth)
DAFF	Department of Agriculture, Fisheries and Forestry (Queensland)
DEHP	Department of Environment and Heritage Protection (Queensland)
DSITIA	Department of Science, Information Technology, Innovation and the Arts (Queensland)
Group G	Grower
Group M	Miller
HCPSL	Herbert Cane Productivity Services Ltd
ICSB	International Consortium for Sugarcane Biotechnology
IOC	Industry-owned company

KFA	Key focus area
LCA	Life cycle assessment
MAPS	Mackay Area Productivity Services Ltd
MRAC	Milling Research Advisory Committee
N	Nitrogen
NCEA	National Centre for Engineering in Agriculture
PCR	Polymerase chain reaction
PEC	Professional, Extension and Communication
PRAC	Production Research Advisory Committee
QAAFI	Queensland Alliance for Agriculture and Food Innovation
QUT	Queensland University of Technology
R&D	Research and development
RD&E	Research, development and extension
RDCs	Research and development corporations
RIDESA	A consortium of Brazilian universities
RFP	Research Funding Panel
RFU	Research Funding Unit
SFA	Statutory Funding Agreement
SRA	Sugar Research Australia
SRDC	Sugar Research Development Corporation
SRI	Sugar Research Institute
SRP	Scientific Reference Panel
TCH	Tonnes cane per hectare
UQ	University of Queensland
UNE	University of New England
USQ	University of Southern Queensland
VAC	Variety Adoption Committee
YCS	Yellow Canopy Syndrome

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