GRAIN PRODUCERS SA
The voice of South Australian growers

Media Release

Tuesday 4 April 2023

Inaugural SA grain sustainability baseline report released

More than 85 per cent of South Australian grain producers who took part in Grain Producers SA's (GPSA) inaugural Baseline Report are taking action on environmental sustainability.

For the first time, in 2022 grain producers in South Australia were surveyed specifically on environmental sustainability credentials and attitudes at a farmgate level for the South Australian Grain Industry Environmental Sustainability Baseline Report.

GPSA Chief Executive Officer Brad Perry said the baselining survey was completed by 120 grain producers across South Australia.

"This initial survey is an important step in looking at how South Australian grain producers are approaching environmental sustainability on-farm," said Mr Perry.

"Consumers, financiers, and markets through the global supply chain are increasingly demanding more sustainable grain and as the peak representative body for South Australian grain producers, we want to be able to better understand where we can provide education and support for producers to take advantage of these demands.

"Almost half of the respondents believe sustainability will be critical to their market access in the next five years, while more than 50 per cent surveyed want the South Australian grain sector to take the lead on sustainability.

"The survey found that serious challenges remain with carbon farming, with 61 per cent of grain producers surveyed stating that either they weren't sure or don't believe carbon farming is an important issue.

"On the flip side, only six per cent of those surveyed are using remote sensing to make application decisions, meaning that this is a big opportunity for more technology adoption to increase productivity."

As far as practical applications on-farm, the survey found that 44 per cent of respondents believe having access to Genetically Modified (GM) crops is important to achieving sustainability objectives. Furthermore, 55 per cent consider growing legumes to be part of their sustainability practices. When it comes to soil and crop nutrition, 15 per cent of respondents said they are using split nitrogen applications and 12 per cent are using soil analysis to optimise nutrient application.

To read the full report, visit www.grainproducerssa.com.au

For interviews, contact Brad Perry, GPSA CEO, on 0418 619 907

GRAIN PRODUCERS SA

The voice of South Australian growers

South Australian Grain Industry Environmental Sustainability Baseline Report

The state of play for South Australian grain producers

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01 Introduction

Welcome to the inaugural South Australian Grain Industry Environmental Sustainability Baseline Report.

Grain Producers SA (GPSA) is the peak industry body representing the 4,500 grain farming businesses in South Australia. More than 70 per cent of the grain harvest is exported to over 50 countries around the world. In 2020-21, South Australia harvested over 9 million tonnes of grain, valued at almost $3 billion.

For the first time in 2022, grain producers in South Australia were surveyed specifically on environmental sustainability credentials and attitudes at a farmgate level to better understand baseline data on environmental sustainability in South Australia's grain sector.

This initial survey, completed by 120 grain producers, is an important step in better understanding how South Australian grain growers are delivering on sustainability.

The South Australian grain industry has several natural advantages when it comes to sustainability, most notably our freight routes being close to major ports meaning less transport carbon emissions from farm. Through the survey and results of this Report, GPSA is aiming to better understand what growers are – or are not – doing at the farmgate level when it comes to environmental sustainability.

While there are accreditation schemes available for growers wanting access to the European canola and barley market, GPSA intends to use this grower survey to baseline South Australia on initiatives such as emission reductions, inputs such as fertiliser and pesticides, and more.

Consumers, financiers, and markets through the global supply chain are increasingly demanding more sustainable grain. GPSA is looking to not only better understand where we can provide education and support for producers to meet these demands, but also communicate to the consumer the already well-established sustainability credentials of South Australian grain.

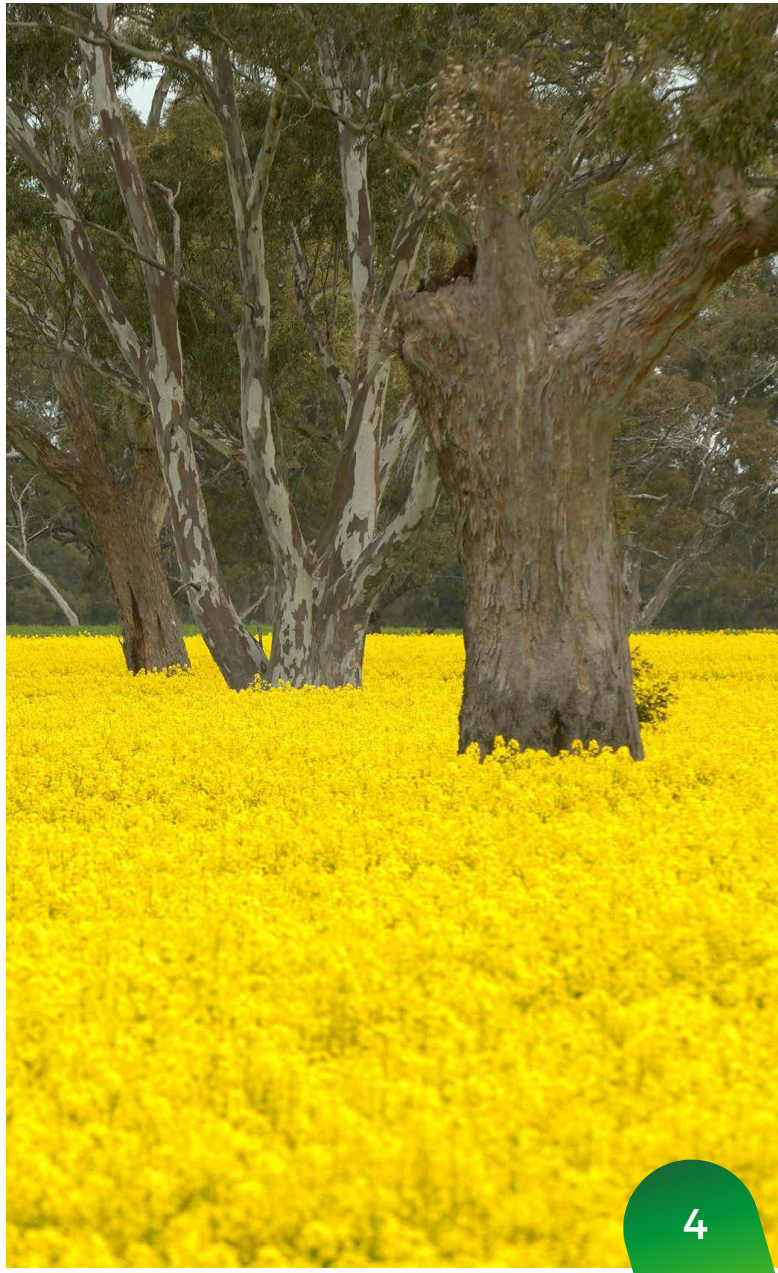
This Report is about ensuring we can help South Australian grain producers meet the changing expectations and needs of international markets, consumers, communities and other key stakeholders while remaining productive.

It is clear from this Report that sustainability is a key issue for grain producers.

As the peak grain body in South Australia, we want to be on the front foot when it comes to sustainability credentials and this baselining Report provides data to better understand the current state of play, allowing us to tailor our policy responses in this rapidly evolving space.

Brad Perry

Chief Executive Officer
Grain Producers SA



02 Report background and methodology

Grain Producers SA undertook a sustainability survey that was sent to all members and marketed widely throughout the grain production community in South Australia.

120 grain producers from across South Australia responded to the survey, providing GPSA with a suitable sample from which to identify the current status of the sector.

This is GPSA's first sustainability baseline report and will be used to inform our sustainability activities as well as the foundation for all future sustainability surveys and benchmarking. This is the first step of many in understanding where we are, where we are going and how we are travelling.

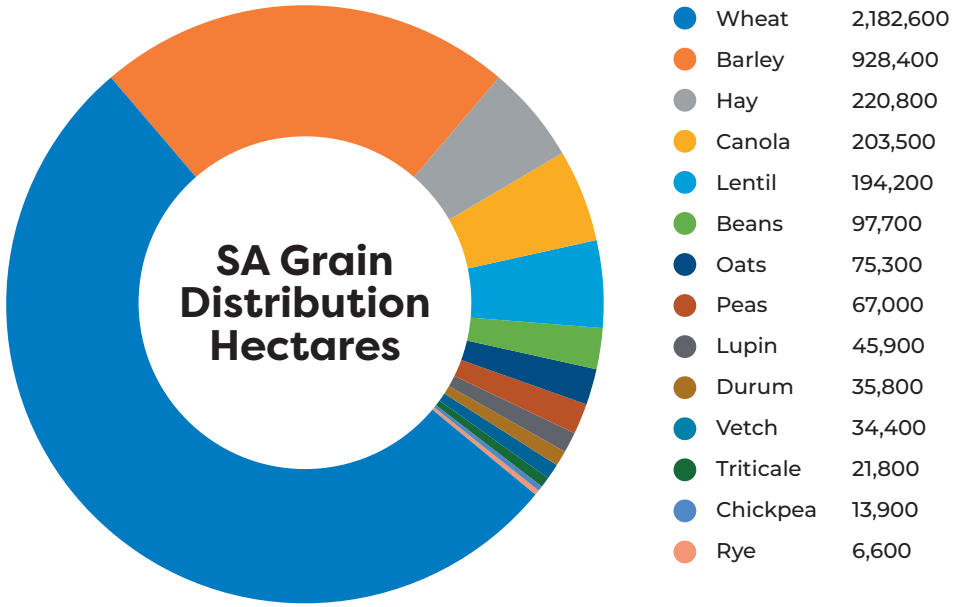
Within our broader Environment, Sustainability and Governance activities, this report focuses specifically on environmental sustainability in farming operations.

03

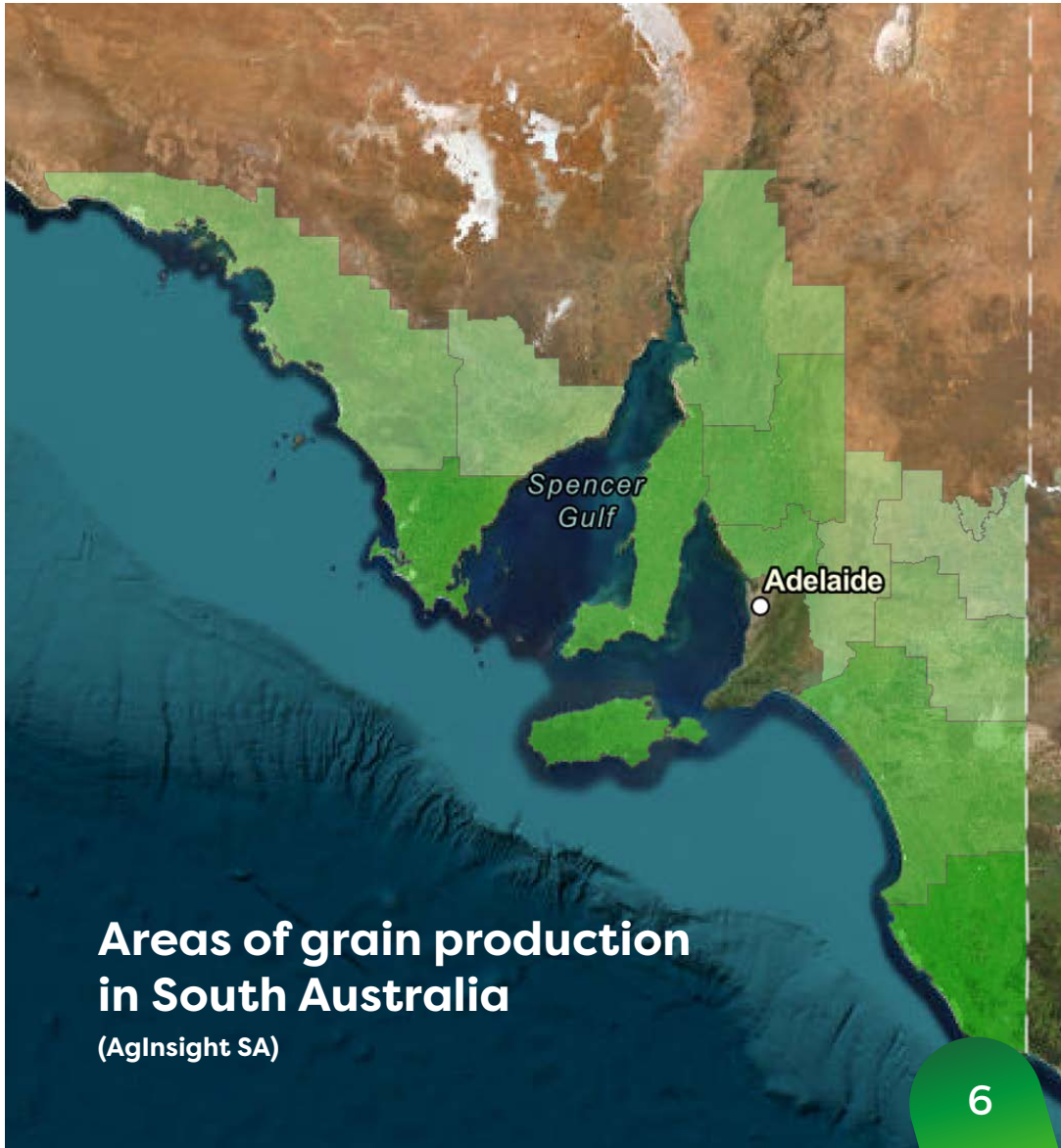
Grain production in South Australia

To January 2022, 4500 South Australian grain producers farmed 4.1 million hectares, producing 8.3 million tonnes of grain and 0.85 million tonnes of hay, 85% of which is exported. In 2020-21, this production was worth $2.9 billion with $2.7 billion exported.

The graph below shows the breakdown of production, dominated by wheat and barley with substantial production of hay, canola, lentil, beans, oats and peas.



Sources: South Australian Department of Primary Industry and Regions Crop and Pasture Report to January 2021 and PIRSA Scorecard 2020/21.



Areas of grain production in South Australia
(AgInsight SA)

04 Our respondents

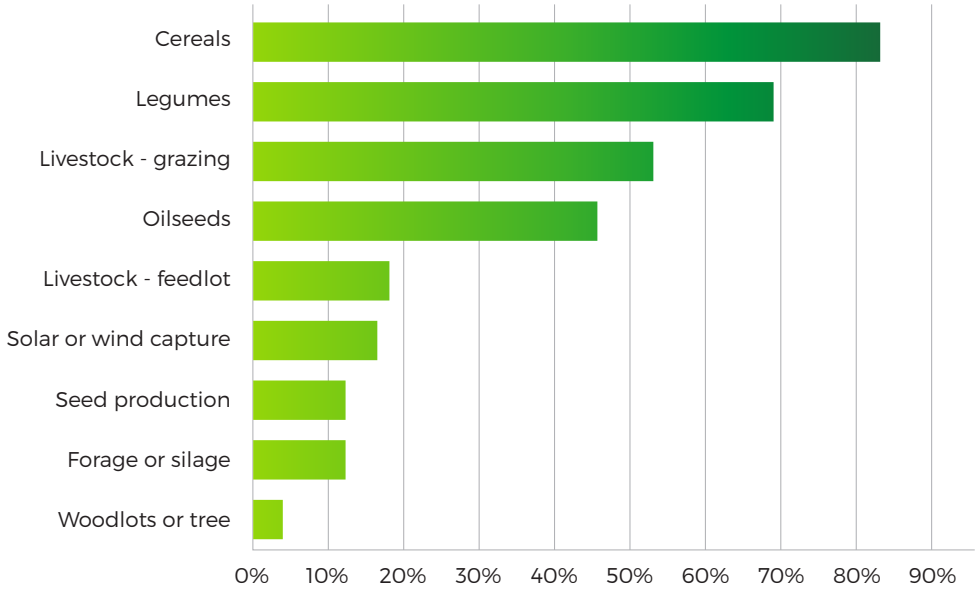
83% of respondents grow cereal

69% produce legumes

53% graze livestock

46% produce oilseeds

Participants also run feedlots, capture renewable energy, produce seed, forage and silage and grow tree crops.



Our respondents hear about sustainability from a range of sources, with news the most significant. Other than news, South Australian grain producers are most likely to hear about the environment from GPSA, their agronomist at field days, producer events, or from other producers. In answering where they got their information from, some producers commented that they had been on their sustainability journey for several decades.

Some have not needed to hear about sustainability externally:

"We have been on a sustainable agriculture course since the 1970s"

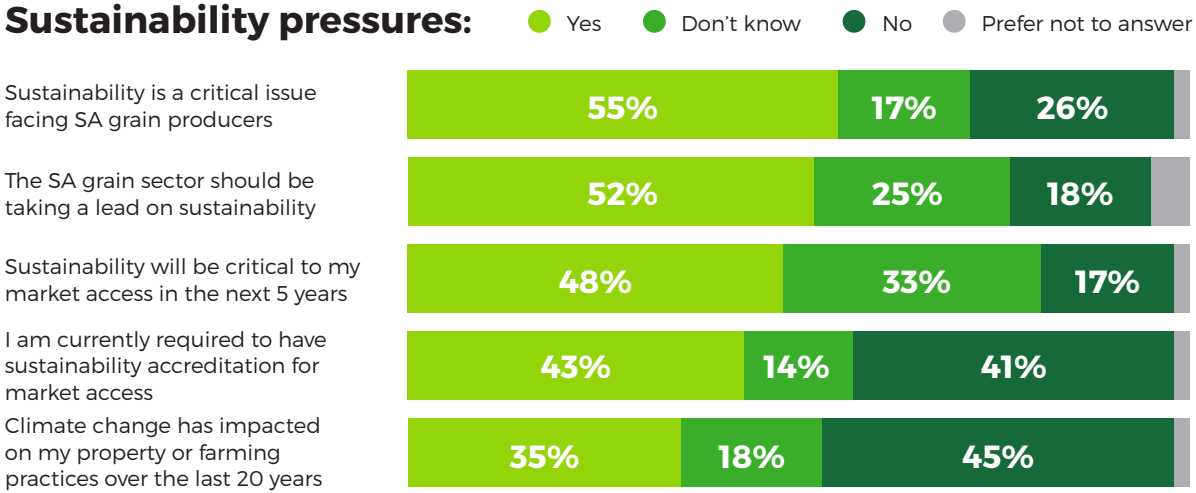
05

Environment: The big picture through the eyes of SA Grain Producers

Grain producers were asked about their environmental pressures surrounding sustainability.

Their responses are summarised in the following graph. Most grain producers consider sustainability to be a critical issue that the sector should be taking a lead on. While almost half of grain producers believe sustainability will be critical to market access in the next five years, while another third are unsure.

Sustainability pressures:



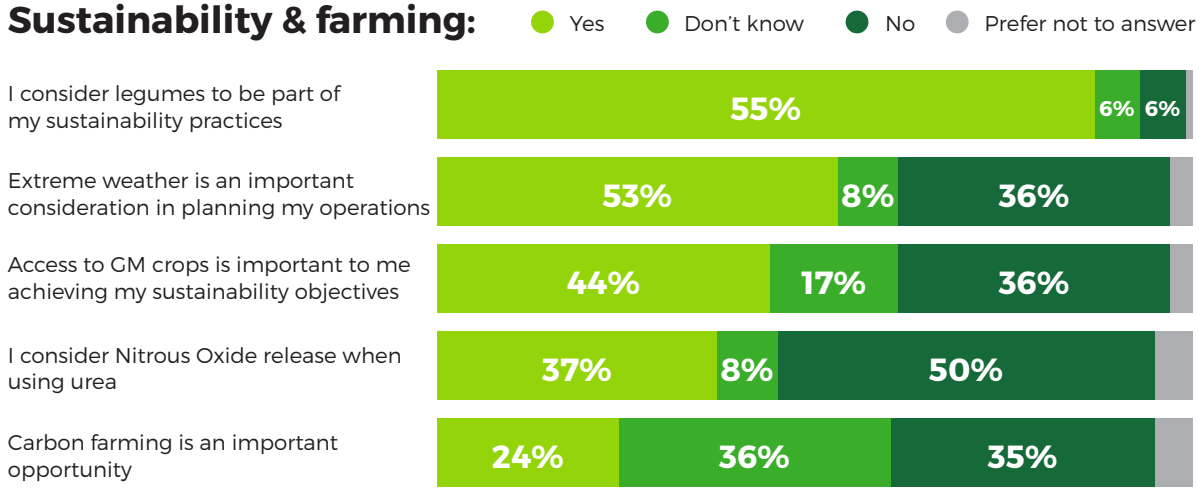
With the importance of international market access to the sector, over 40% of grain producers report that they are required to have sustainability accreditation for market access.

While 35% of producers report that they have observed climate change impacts on their property in the last 20 years, 45% report that they have not.

We asked grain producers about big picture farming issues before we got into detail about their practical actions.

When it comes to practical farm management, over half of grain producers consider extreme weather in their planning and 44% consider access to GM crops to be important in achieving their sustainability objectives. The survey found there is interest, but much more uncertainty, around carbon farming.

Sustainability & farming:



Grain producers with livestock

36% of grain producers with livestock are taking measures for sustainability in their operations, including promoting native grasses, planting legumes in feed paddocks, utilising natural fertilisers, measuring soil cover, light and carefully managed grazing, use of saltbush as an erosion minimising feed, rotational grazing and using dung beetles.

Highlights:

50%
Actively monitor their environmental performance

38%
Protecting or increasing biodiversity

86%
Taking action on environmental sustainability

06 Taking a deeper look

Pest & weed management

Highlights:

40% Optimising chemical use

32% Applying IPM (Integrated Pest Management)

25% Using alternative weed control

40% of respondents reported that they were actively optimising herbicide and pesticide use, with 32% adopting Integrated Pest Management and 25% using alternative weed control. A further:

- **17%** are using weather station networks to plan and manage
- **8%** are using mechanical weed control
- **6%** are using remote sensing to make application decisions

Emerging tools and techniques include robotic or drone spraying, livestock, stubble retention, spot spraying, rotations, bio interference and green manuring.

"We use inspection monitoring and evaluation during key insect periods to measure beneficial vs pest thresholds before applying chemical."

Only 7.5% were using ChemClear (a collection service for unwanted and obsolete agrichemicals). This may be due to not needing the service or underutilisation. This will be pursued in subsequent surveys.

Soil & crop nutrition

The most important tool for respondents in reducing fertiliser application is crop rotations and rotational grazing. Almost nine-in-ten grain producers surveyed are using legumes in rotation as a core sustainability practice to reduce fertiliser application and therefore lower greenhouse gas emissions.

Other actions on reducing synthetic sources of nutrition include:

- **15%** are using split nitrogen applications
- **12%** are using soil analysis to optimise nutrient application
- **9%** are choosing varieties with lower fertiliser requirements
- **8%** are using weather station networks to plan and manage fertiliser applications
- **8%** are using variable application rate technology
- **7%** are using alternative fertilisers such as animal waste, organic manure, recycled fertiliser, composts or biosolids

90% Plant legumes in their rotations as a source of nutrition

"I have ... improved my soil structure to retain water and nutrients and increased legumes in pasture and crop rotations"

Emerging tools to support more effective nutrition management include the use of remote sensing to make application decisions, leaf tissue analysis to optimise applications, organic seed coats, biostimulants and microbial agents to increase nitrogen uptake. Some grain producers with intensive livestock operations use animal waste spreading.

The role of genetics in sustainability

Genetics is key to sustainability in grain production and South Australian producers are supported by several significant breeding programs. As a result of plant breeding, 22% of respondents have been able to choose varieties with low pesticide or herbicide requirements. Another 9% have been able to utilise varieties with low fertiliser requirements.

22%
Choosing varieties with low pesticide or herbicide requirements

9%
Choosing varieties with lower fertiliser requirements

Waste reduction

61% of grain producers participate in DrumMUSTER, the program to recycle agricultural chemical containers. 30% of producers are avoiding plastics in other ways, using bigger and bulk containers, returnable containers, plastic recycling, drum recycle and plastic specific disposal.

61%
Participate in Drummuster

30%
Acting to reduce plastic waste

Soils and waterways

Almost 70 percent of South Australian grain producers are active in managing soil and waterway erosion. Over 40% of producers are using one or more of stubble retention, rotations or precision farming, A further 17% use controlled traffic and 13% use grassed waterways to prevent soil erosion and nutrient runoff.

Other tools include wetlands and planted buffers to treat nutrient runoff, cover cropping, clay spreading, delving, and reduced grazing.

68%
Actively reducing soil and waterway erosion

60%
Using no-till and/or stubble retention

53%
Using rotations to maintain ground cover

41%
Using precision farming methods

"We maintain all of our dams and water runs, encourage natural medics as break crops and grow summer forage. We have purchased machinery to deep rip soils to grow healthier crops."

Climate variability

Grain cropping in South Australia has long used rotations, fallows and legume cropping to obtain nitrogen and provide weed control, so it is no surprise that 90% of respondents report that they are using these techniques to supplement nitrogen application, reducing greenhouse impacts. In addition, 12% are actively reducing tractor passes and 9% have installed renewable energy systems.

Further insights:

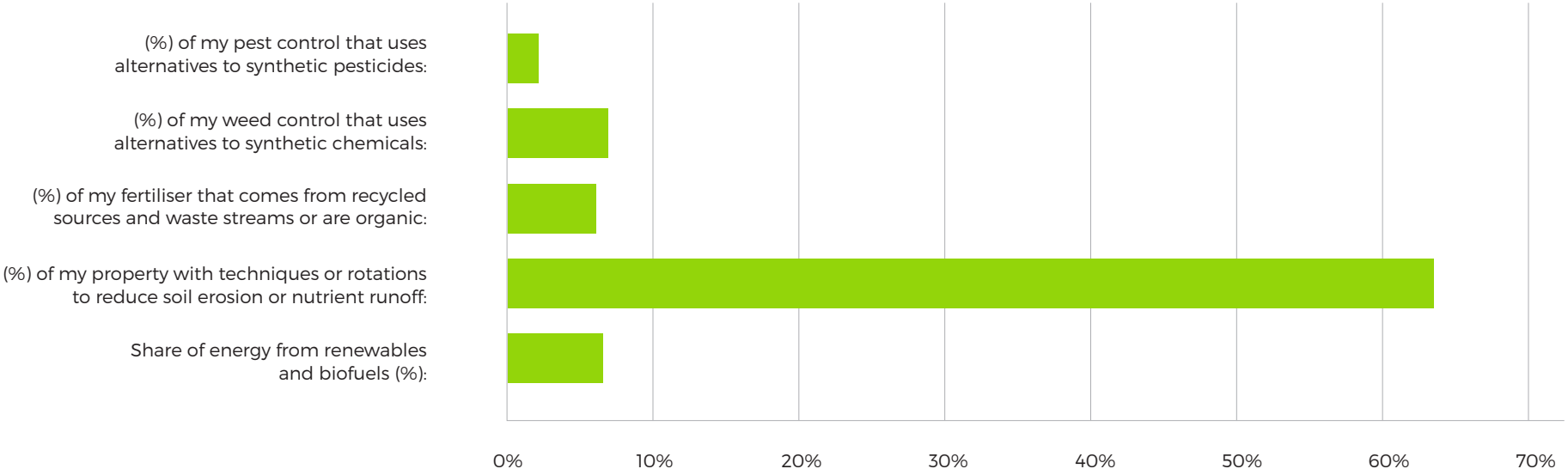
Other actions include using biofuels, improving equipment fuel efficiency, measuring greenhouse gas emissions, no-till and increasing the use of legumes in pasture and rotations.

18%
Actively managing energy and/or GHG

90%
Utilise legumes to supplement nitrogen applications

"We have completed a carbon account for the whole farm to understand emissions and offset/inset requirements"

07 The state of the sector and next steps



Environmental sustainability in grain production is a balance of suitable machinery, efficient use of chemicals and fertilisers, working with natural systems, and the utilisation of improved plant genetics to provide sustainable yields. The sector is not aiming to achieve zero application of any chemical or fertiliser, rather to increase the effectiveness of use of these inputs and adopt new methods to reduce our operating costs and continue to be custodians of our part of the environment.

We believe it is important to hold ourselves to account to record our progress.

This is GPSA's first survey to baseline South Australian grain producers on environmental sustainability, which we will undertake annually to compare results year-on-year. We will use the data in this survey to focus education and policy efforts in sustainability for the South Australian grain sector.

GPSA would like to acknowledge and thank all South Australian Grain Producers that participated in the survey. Thank you to Hydra Consulting for conducting the survey on behalf of GPSA and producing this Environmental Sustainability Baseline Report.

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