SUSTAINABILITY FRAMEWORK





REPORT 2024

The Sustainability Framework is an ongoing process of examining the relationship between industry, the environment, and the community to develop and maintain a clear set of principles to drive improvement and increase the availability and affordability of locally produced eggs.



SUSTAINABILITY FRAMEWORK REPORT 2024

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Through ongoing improvements in sustainability, the egg industry will continue to help support food security by producing safe, affordable and nutritious eggs.





INTRODUCTION

Egg farming businesses across Australia are working hard to produce 18.9 million eggs every single day. With egg production already having the lowest carbon footprints of any animal-based protein, farmers are still continuously looking for ways to improve farming practices to produce more eggs and further reduce environmental impacts.

Australia's consumption of eggs is expected to grow along with the population and shift in consumer preferences as well as reliance on eggs as an affordable source of protein. Increasing production levels to meet demand depends on the egg industry's strong relationship with the environment and the community.

Consumers can feel good knowing that every Australian produced egg contains 13 essential vitamins and minerals and has been produced to the highest level of animal welfare, food safety, nutrition and sustainability standards.

Australia continues to rank highly as one of the most food secure countries in the world. However, an increasing population coupled with emerging climate impacts will continue to put pressure on local food production systems. Through ongoing improvements in sustainability, the egg industry will continue to help support food security by producing safe, affordable and nutritious eggs.

The industry will also contribute support the livelihoods of people through responsiveness to community expectations, environment and food safety practices and the provision of employment and education opportunities across the supply chain.

The Sustainability Framework is an ongoing process of examining the relationship between industry, the environment, and the community to develop and maintain a clear set of principles to drive improvement and increase the availability and affordability of locally produced eggs.

The Australian egg industry the Sustainability
Framework first commenced in 2017. Developed to
support the Australian egg industry's objective of
farming eggs for Australians in a way that is socially,
environmentally and economically responsible,
the process has allowed the industry to explore
and understand the Australian public's attitudes and
opinions towards the egg industry and identify key
drivers of acceptance and trust and identify farming
practices that improve the lives of people, hen welfare,
environmental impacts and economic viability.

SUSTAINABILITY FRAMEWORK

KEY FOCUS AREAS



LIVES OF PEOPLE

- Food Safety
- **Nutrition**
- **Transparency**
- *i* Employment





HEN WELFARE

- Animal husbandry
- Welfare Improvement





ENVIRONMENTAL IMPACT

- (CO₂) Carbon Footprint
- Renewables
- Land Management

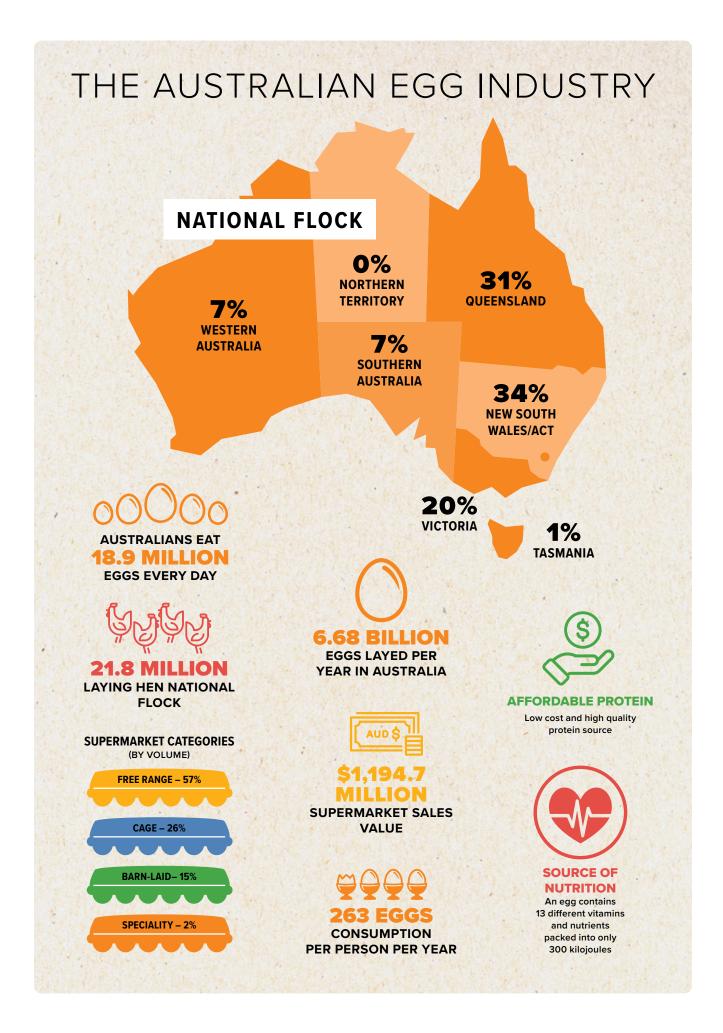




ECONOMIC VIABILITY

- **Egg Farm Profitability**
- ! Risk Management





SUSTAINABILITY FRAMEWORK ROLES

Australian Eggs commissions research for the Australian Egg Industry Sustainability Framework which is conducted independently by social science researchers, Voconiq. The research aims to obtain a deeper understanding of community values, perspectives and attitudes to the egg industry. This research is then given to the egg industry to inform decision making on research and development programs and investments.

Community

The community is the Australian public. By understanding community attitudes, both positive and negative, the egg industry can identify priority issues. Australians aged 18 years and over are invited to share opinions on the things that matter to them.

Voconiq

Founded by a team of social scientists at CSIRO in 2019, Voconiq is a research company that conducts the research by engaging with community stakeholders directly, collecting survey data, analysing it and providing results and insights to Australian Eggs to review. The initial research program was conducted by CSIRO and has been continued by Voconiq from 2021.

Australian Eggs

The egg industry includes egg farming businesses and other businesses along the supply chain such as veterinarians, industry service providers, state, and national representative bodies. Australian Eggs commits to transparent reporting so interested parties can understand why and how the egg industry is responding to the research.

Egg Industry

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SUSTAINABILITY INDUSTRY CONSULTATIVE COMMITTEE

The involvement and guidance of egg farmers provides the basis for the Australian Egg Industry Sustainability Framework through the Sustainability Industry Consultative Committee (ICC).

The Sustainability ICC comprises a group of prominent egg farmers with representatives from large and small egg farmers from each state. The ICC receives briefing on the proposed research methodology and provides input and feedback to Australian Eggs in the preparation of the Sustainability Framework Report.

Members of the Sustainability ICC are as follows:

Anne Andary, Days Eggs, SA
Greg Quinn, McLean Farms, QLD
Ian Wilson, Bodalla Eggs, WA
Isabelle Dench, Sunny Queen Farms, QLD
Jade Hoare, Pace Farm, NSW
Philip Szepe, Kinross Farm, VIC
Melinda Hashimoto, Egg Farmers of Australia



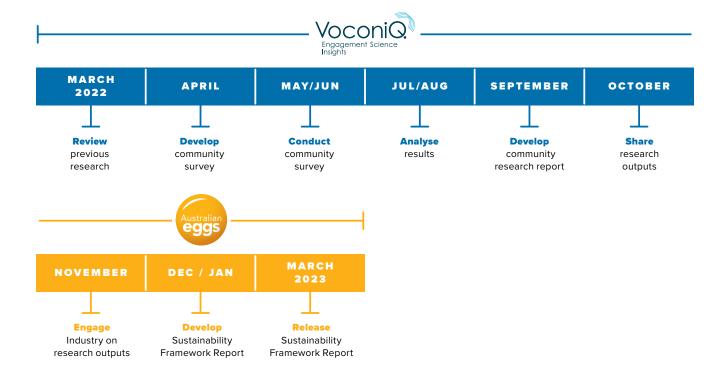
SUSTAINABILITY FRAMEWORK PROCESS

The Sustainability Framework is facilitated by Australian Eggs with guidance from an egg industry Sustainability Consultative Committee. The Sustainability Framework seeks to:

- Track public attitudes on the impacts and contributions of the egg industry to identify industry responses and key challenges
- Demonstrate how the egg industry will direct industry investment to facilitate improvement

- Encourage extensive stakeholder engagement for a consolidated response
- Provide transparent reporting of industry progress in key areas.

Full details of these steps are available on the Australian Eggs website and an outline is provided below.



AUSTRALIAN EGG INDUSTRY COMMUNITY RESEARCH REPORT

The Australian egg industry community survey conducted by Voconiq aims to examine the relationship between the egg industry and the Australian community and measure and transparently publish attitudes toward the egg industry.

The Australian egg industry plays an important role in the diet of many Australians. With this role comes an increasing expectation of the egg industry to align practices with the attitudes and perspectives of the community.

The 2023 community research report was conducted at a time when Australians are feeling the squeeze of a cost-of-living crisis. The impact of these economic factors will most likely influence community expectations of how the industry operates, and perceptions of the role that eggs play in everyday life.

The community survey aims to understand sentiments around four focal points of the Australian Egg Sustainability Framework, including the lives of people, animal welfare, environmental impacts, and the economic viability. This is also analysed together with attitudes towards food security, nutrition, food traceability and research and development initiatives.

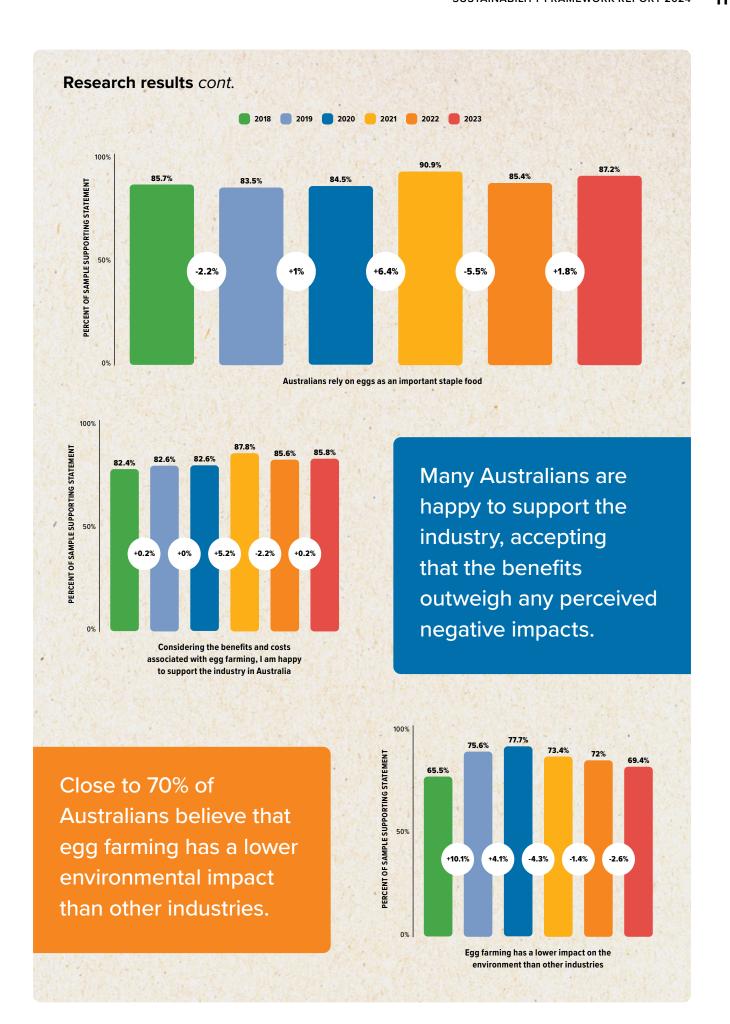
Responses are then compared with previous years of research to identify where there has been improvement as well areas that need to be addressed.

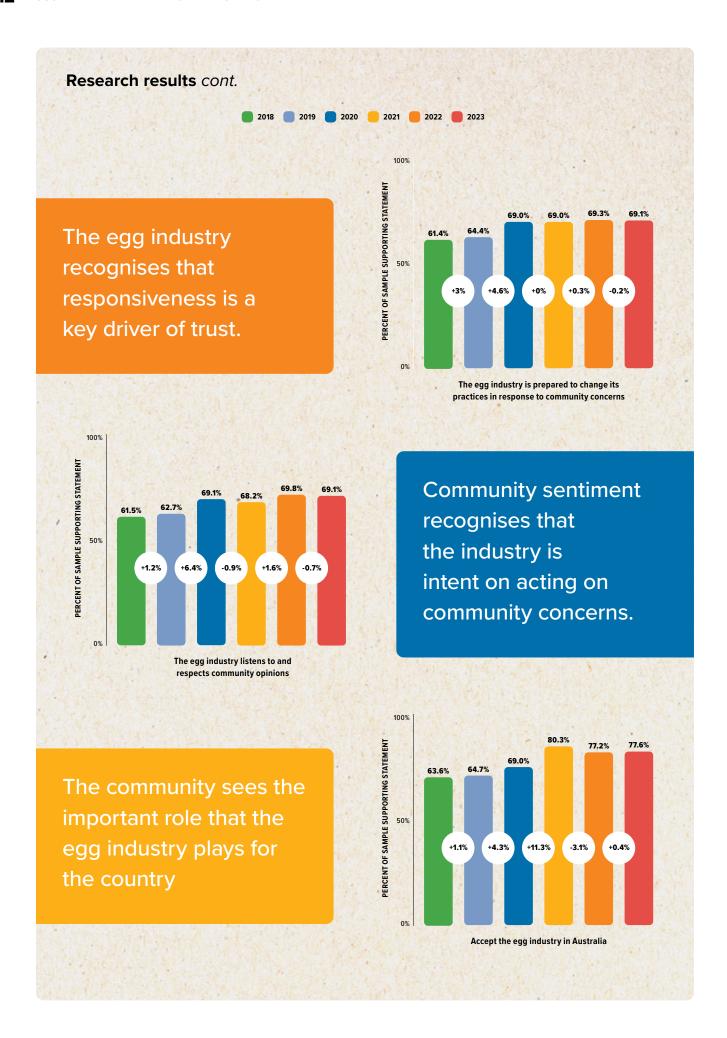
Survey responses were collected from 5,403 people across the country through two methods:

- A representative national survey of Australians over the age of 18 recruited via a research panel
- An "open call" national survey of Australians that anyone over the age of 18 was free to participate in via a public web link with a sample.

Since its commencement in 2018, 43,871 community members have participated as survey respondents, helping inform the response and actions of the egg industry In Australia.







Traceability and labelling contribute to community confidence in the product they are buying.





LIVES OF PEOPLE

Contributing to the community through the provision of a nutritious staple food.

Many Australians rely on eggs as an affordable, nutritious and safe source of protein.

The research has made it clear that community trust plays an important role in the relationship between the community and the egg industry.

It is the reason the egg industry can continue to operate, and the reason the Australian community can enjoy the benefits of the egg industry's hard work.

Industry responsiveness remains the strongest driver of trust in the egg industry and the work of the egg industry to respond to community expectations has resulted in strong approval from the Australian public.





6) Food Safety

Food safety is a primary focus of egg farmers and consumer confidence in food safety within the egg industry is an important factor in informing egg purchasing decisions. Australians have made it clear that safe eggs are just as important as hen welfare, environmental sustainability, and pricing.

The commitment of the egg industry to provide a safe food product for all Australians extends to its investment in research and resources. Innovation maintains the egg industry's position as a forward-thinking industry, and of course, guarantees a safe product for all Australians to consume.

Traceability continues to be front of mind for both the egg industry and the wider community. Now in its second year, Australian Eggs' EggTrace traceability tool is continuing to provide a simple tool for farmers to capture traceability information digitally and store all important traceability records in one place.

A research project on cold-chain transportation of eggs is underway to better understand if various lower storage temperatures will mitigate the growth of food safety issues such as *Salmonella* Enteritidis and *Salmonella* Typhimurium with hopes to determine the root cause of food poisoning when eggs are involved.



Nutrition

Although it is now well accepted that eggs are a nutritious, affordable and versatile source of quality protein, there is scope for more research to realise the full extent of health benefits of eggs as part of a balanced diet for human health for all stages of life.

The egg industry continues to invest in research on the benefits of eggs for human health and dispel common myths that may be a barrier to consumption.

A research project on the effect of Eggs on microbiome and cognition is currently underway to examine the effects of egg intake on the human gut microbiome and potential positive impact on cognition.



Human Nutrition Highlight

Australian GPs and dietitians increasingly recommend daily egg consumption.

New survey results from Australian Eggs reveal that both General Practitioners (GPs) and Dietitians are increasingly recognising the nutritional value of eggs.

The survey findings show that recommendations for unlimited or daily consumption of eggs have increased among GPs compared to previous years. Nearly 1 in 2 GPs now recommend daily or unlimited consumption of eggs, representing an increase of 8% from the previous year. 4 in 5 GPs now agree that the dietary benefits of eggs outweigh the potential rise in serum cholesterol.

The steady work of the egg industry through marketing initiatives and research has meant that many dietitians and GPs have become advocates of eggs and egg consumption.

Other key results from the survey included the 50% of GPs who have never advised patients to restrict egg intake, representing an increase of 5% on last year and a steady increase since 2015. The survey also revealed that GPs and dietitians both have a growing awareness of Choline, an important nutrient found in eggs.

Overall, the survey results from both GPs and dietitians demonstrate a growing recognition of the nutritional value of eggs. The increase in recommendations for daily consumption among GPs and the growing awareness of Choline and Vitamin D among both GPs and dietitians means our healthcare providers are increasingly becoming egg advocates to their patients and clients.

The community's positive perspectives on eggs was also reflected in findings from the community survey which found that respondents disagree that plant-based proteins could replace eggs as a staple food.

Australian Eggs commissioned an analysis from Urner Barry Consulting to explore how the plant-based market is developing in the EU and US as an indicator for the Australian market. The research found that although there is increased curiosity in plant-based egg substitutes, the input costs associated, and negative customer recall means that eggs are still considered the preferred protein compared to plant-based egg alternatives.



Transparency

For the community to trust the egg industry, continued transparency is non-negotiable. Consumers want to know about the products they buy and community concerns are growing around food safety, welfare and environmental impact. Supporting informed decision making is a priority of the egg industry.

Transparency on farming practices and sharing information on all production systems including cage, barn and free range, to ensure all are generally well understood.

Through social media, involvement at agriculture shows, contributions to youth initiatives, participating with media opportunities, as well as the development of resources such as virtual egg farming experiences, the Australian egg industry is active in finding more ways to provide a comprehensive overview of egg farms and farming practices.

The Sustainability Framework reporting remains a key vehicle for industry transparency and is a formal demonstration of responsiveness to the Australian community.

The recent community survey highlighted that the industry's responsiveness is being rewarded with high ratings from the Australian public. Levels of agreement with the industry's ability to listen to and respect the opinions of community reflect the success of maintaining open public engagement.



Employment

Maintaining the consistent supply of eggs around Australia requires an efficient and willing workforce. The egg industry is committed to providing a range of rewarding employment opportunities and supports career pathways through the provision of industry-specific training and development opportunities for egg farming employees across the supply chain, of all education levels and experience.





HEN WELFARE

Farming that aligns with community expectations and delivers substantive animal welfare outcomes and ongoing improvement.

Many Australians agree that animal welfare is not just the absence of harm, but the opportunity for animals to engage in natural behaviours. More than three-quarters believe that the egg industry can be trusted to help develop guidelines that ensure egg producers do the right thing. The egg industry will continue to reward this show of faith with innovative research and advocacy that maintains a high standard of hen welfare.

Improving hen welfare is a constant process. This process of improvement has been recognised by the community, with many agreeing in 2023 that the egg industry maintains higher standards of hen welfare than in previous years.



Animal Husbandry

The egg industry is committed to good animal husbandry. There is a mutual understanding between the community and the egg industry that hen welfare is important. While the community understands that there are costs and benefits to hens in all production systems, there will always remain an obligation for the industry to continue to deliver positive welfare outcomes.

The reputation of the egg industry as a progressive industry is thanks to its readiness to embrace new and innovative technologies. Recent community research showed that many agree that technology has improved the welfare outcomes of egg farms.



Welfare Improvement

To ensure the safe and reliable production of eggs, Australian egg farmers are embracing technology to help improve hen welfare. Improving hen welfare benefits both the animal and the farm.

Research is currently underway on intelligent realtime monitoring of flock behaviour and welfare. Automated video-based systems and machine learning is being used to identify individual bird behaviours that will help determine whole flock movements and behaviours, while providing realtime information to provide farmers with insights into bird health, welfare, and productivity.

Based on the continuous and reliable data generated through artificial intelligence systems on farm, the project aims to deliver a combined flock welfare, production monitoring and early warning system for the industry.

Animal Husbandry Highlight

Through investment in research by Australian Eggs, researchers from the University of New England (UNE) have conducted a project into the effects of AM/PM feeding on free-range laying hens. Their research found that AM/PM feeding improves feed efficiency, yolk colour score, bone strength and welfare of free-range laying hens.

AM/PM feeding involves providing a high energy and high protein diet with lower calcium in the morning (AM), and a low energy and low protein diet with higher calcium in the afternoon/evening (PM).

The results showed that AM/PM feeding improved laying hen performance under Australian conditions by increasing egg mass by 2.15% and feed efficiency by 8.34% over 20 weeks. This may indicate a better use of nutrients, resulting in more eggs laid and better feed conversion in the AM/PM hens. The AM/PM hens also had a higher yolk colour score, although this can be attributed to eating materials (like insects, plants, and grasses) with natural pigments.

These findings hope to support farmers to improve productivity and reduce environmental impacts.





ENVIRONMENTAL IMPACT

Preserving natural resources by minimising resource use and the long-term impacts on environmental systems.

The 2023 community survey saw environmental responsibility and sustainability increase its significance as a key driver of trust. Community perceptions of the egg industry's impact on the environment were positive with over three-quarters agreeing that egg farming is a good use of land, and nearly three-quarters agreeing that egg farming has a lower impact on the environment than other industries.

The egg industry has received clear instruction from the community on what it expects. Further reductions in environmental impact and a meaningful demonstration of its commitment to community expectations will ensure further community approval.

Renewable energy, composting, waste optimisation, recycling and range regeneration practices are common practices in egg production, and the industry is committed to continuous improvement in sustainable practices to further improve environmental outcomes and reduce impacts.



(CO_2) Carbon Footprint

The egg industry has strong environmental credentials including an initial advantage of enjoying a relatively low carbon footprint, the lowest of common animal protein sources and comparable to some plantbased foods. These strong environmental credentials are backed by investment in research, technology, and strong environmental management strategies.

Giving egg producers a better understanding of their carbon footprint is a priority for Australian Eggs which has led to the development of a carbon calculator designed specifically for the egg industry. This calculator will enable farmers to input data from their farm and supply chains to determine their carbon footprint and total on-farm emissions and enable them to understand their baseline farm performance and identify opportunities for improvement.



Waste Management

In addition to providing a widely available, healthy, and affordable source of protein, the egg industry also produces large volumes of valuable manure, spent litter, spent hens and shells. Managing this waste presents an exciting opportunity for the industry to further expand its contributions to other industries.



Land Management

Egg farmers understand that managing the land they farm on is important and are committed to exploring different methods for regenerating the land for future generations.

Over three-quarters of community agreed that egg farming is a good use of land. This positive sentiment provides an opportunity for the egg industry to build on its strong credentials and will increase in significance as demands for land increases due to impacts arising from growing population and transitions to free range production.



Waste Management Highlight

A new research project into optimising waste and by-product utilisation in the egg industry is hoping to explore how egg farmers can utilise waste and by-products, identifying opportunities for conversion into alternative revenue streams and contribute to a circular economy.

The project will also see development of a manual describing various strategies and technologies that could be used to optimise and re-use waste.

The egg industry has an exciting opportunity to expand its contributions to other industries. Manure and spent litter can, and are being used to reduce synthetic fertiliser, while also being used as a source of renewable energy, wastewater can be treated and reused, and shells can be used in everything from pharmaceuticals to cosmetics and electrodes.

Nearly 75% of Australians agree that egg farming is a good use of land, and that egg farming has a lower impacton the environment than other industries.



ECONOMIC VIABILITY

Having the economic resilience to profitably deliver outcomes of value to the community.

Increasing production costs, labour shortages and retailer pressures are some of the many challenges egg farmers have to address in order to maintain the affordability and availability of eggs as a staple food for Australians.

The pressure to maintain the affordability of eggs was echoed in the sentiments of the wider community through the community survey.

Many agreed that the price of eggs fairly reflects the cost of producing them. This highlights that the community understands the value of the egg industry and its contribution to feeding the Australian population. The survey also confirmed that Australian families are experiencing financial pressure resulting from increased living expenses, further emphasising the need for supply of a nutritious and affordable protein source.



Egg Farm Profitability

Inflation has driven an interesting trend in Australian consumers. The cost-of-living crisis is being witnessed in rising food, rent, electricity and other household bills. This has driven a decline in eating out for lunch and dinner, resulting in greater at-home meals across all meal occasions. Australian egg farmers will be looked on to fill this uptick in grocery purchases and perform the industry's role as a supplier of affordable and reliable source of nutrition.



Risk Management

Egg farming involves a range of related commercial, operational and regulatory risks that are constantly being assessed to ensure that they can be managed effectively.

The community survey made clear that responsiveness, or how quickly the industry reacts to community concerns, is a key driver of trust. This demonstrates that the community recognises the efforts of the egg industry to communicate with the Australian public and that the egg industry must maintain reliable points of contact for the community to voice their concerns.

Egg Standards of Australia (ESA) is a voluntary quality assurance program that helps to reduce risk by providing a compliance framework to egg producers. The ESA has been developed with retailers and producers in mind, presenting a workable wand practical quality assurance program that meets the requirements of regulators. For the community, ESA provides assurance that the eggs they consume are safe.

Risk Management Case Study

Nestled in South Australia, S&A Farms' commitment to Egg Standards of Australia is remarkable.

Specialising in free range egg production, S&A has been ESA compliant since their establishment a decade ago. For owner Nasir Zia, ESA accreditation has been a valuable tool for ongoing improvement within their business.

Adhering to ESA standards has enabled S&A farms to consistently deliver high-quality and safe eggs to their loyal customers. The comprehensive guidelines and resources provided by ESA have empowered them to streamline their processes, ensuring strict compliance with industry standards.

The farm has witnessed the positive impact of ESA on their operations, as well as the satisfaction it brings their customers.

The Australian community understands the value of the egg industry and its contribution to feeding the Australian population.



GLOBAL SUSTAINABILITY GOALS FRAMEWORK AND EGG INDUSTRY PRIORITIES

Australian Eggs is committed to promoting the safe and continuous supply of eggs for all Australians, underpinned by a vision to achieve a sustainable future for all.

The United Nations commitment to the 17 Sustainable Development Goals (SDGs). As a nation member, Australia is dedicated to the joint goals of improving health and education, reducing inequality, promoting economic growth, all while addressing climate change and working to preserve the natural environment.

The egg industry is contributing directly and indirectly to the SDGs in many ways. The Food and Agriculture Organisation of the United Nations outlines how agriculture across the world is contributing to the SDGs.

The egg industry is aligned with these examples provided including: helping the generation of income; creation of employment opportunities; providing a sufficient, nutritious, affordable and reliable food source; empowering rural women; adoption of renewable energy; supporting sustainable economic growth; stimulating smallholder entrepreneurship and closing inequality gaps; promoting sustainable consumption; increasing the resilience of households to cope with climate shocks; and bringing together multiple stakeholders to achieve all these goals.

The SDGs have positively influenced the sustainability framework process to provide a valuable link between global challenges and solutions provided by the egg industry.

The SDGs have also influenced the Sustainability Framework process to provide a meaningful link between global challenges and action that can be taken by the egg industry.



The Australian Egg Industry Sustainability Framework links to the SDGs in 8 key areas:

Zero Hunger

Eggs are an affordable, accessible, and secure food source. Combined with its already efficient productivity, the egg industry is able to contribute to addressing current and future food challenges.

Industry, Innovation and Infrastructure

Investing in infrastructure and innovation will drive lasting solutions to welfare, labour and sustainability challenges, such as providing new jobs, increasing productivity, reducing environmental impacts and improving farming practices.

Good Health and Well-Being

Eggs are a high-quality protein that contain 13 vitamins and minerals, omega-3 fatty acids and antioxidants and the egg industry has the capacity to directly improve human health outcomes for Australians across all life stages by delivering an affordable, versatile and nutritious food source.

Responsible Consumption and Production

The egg industry is a strong adopter of recycling, using recycled materials for a majority of its packaging. As part of the agriculture sector, the egg industry is a user of energy, and there are opportunities to improve monitoring and management of these resources along with waste management solutions.

Affordable and Clean Energy

The egg industry already has one of the lowest carbon footprints of common animal protein sources and is comparable to some plant-based foods. Accelerating the adoption of solar energy for egg farming and identify pathways for carbon reduction will further improve environmental outcomes.

Climate Action

Eggs have one of the lowest carbon footprint of common animal proteins, making them a great choice for a sustainable diet. The egg industry can contribute to global climate action by looking to further reduce its environmental impact through improving adoption of renewables, measuring emissions, carbon reduction and waste management.

Decent Work and Economic Growth

The Australian egg industry consists of over 600 businesses and employs close to 4,000 people in egg production. Globally, the egg industry employs 4 million people. Through continuous investment in infrastructure and development, the egg industry provides equal employment opportunities, safe and reliable working conditions, while contributing to the growth of the economy.

Life on Land

The egg industry recognises the importance of the natural environment and biodiversity in supporting global food and water security. The industry seeks improvements practices that will reduce pressure on natural habitats and regenerate the land.





Australian Egg Industry Sustainability Framework

For more information please contact the Australian Eggs office: (02) 9409 6999 or contacts@australianeggs.org.au australianeggs.org.au