

State of Queensland agriculture report

June 2014



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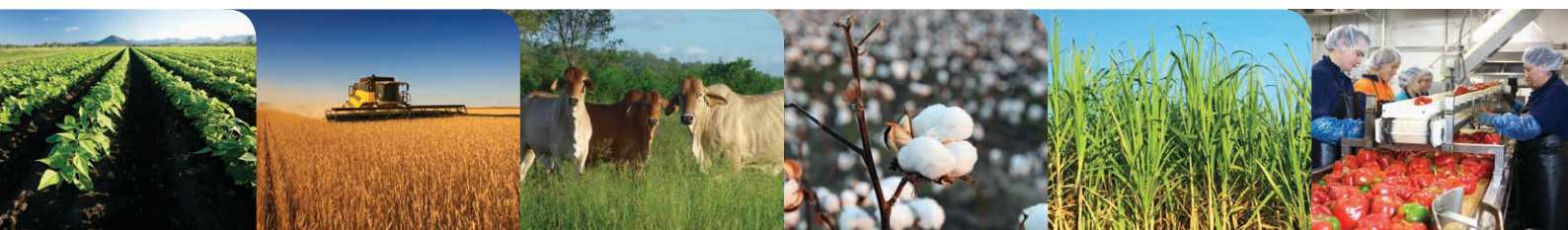
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Minister's foreword

The opportunities for significant growth in agricultural production are clear. As we continue along the trajectory of staggering growth projections of global food demand, it is increasingly important to document the current state of the sector and track its progress. Queensland must fully understand the sector's challenges and opportunities through the rigorous collection and dissemination of relevant data, in order to identify strategic strengths and opportunities and address emerging issues before they have a chance to stifle growth.

Industry consultation for *Queensland's agriculture strategy* repeatedly highlighted that agricultural industries do not have access to the necessary data to make investment decisions and plan for the future.

We have listened to industry's call and have since embarked on a process to collate and analyse existing data from a variety of sources, and present never before seen data, to establish a critical baseline to build on.

One key issue which remains out of our control is Queensland's highly variable and sometimes harsh climate. The current drought at its peak covered 79 per cent of Queensland; which is the largest drought area ever recorded. The number of local government drought declared areas reached 38, with the addition of four partially declared shires. A better understanding of the sector's economic performance, productivity and natural resource base will help target policies and initiatives that build Queensland's resilience to future events.

Doubling agricultural production by 2040 is an ambitious task, but it is a necessary one to supply domestic markets and also tap into rapidly developing markets in Asia. China is a powerhouse economy that is impossible to overlook, so we must build solid knowledge and understanding of the sector to realise opportunities in the future. Underpinning this is a robust and cohesive biosecurity system which effectively manages increasing risks to Queensland agricultural industries, the environment, human health and social amenity.

This report documents the importance of agriculture for Queensland's economy. It provides details of the state of the sector in relation to each of the four pathways outlined in *Queensland's agriculture strategy* and includes metrics on biosecurity risks and management.

Concluding this report is a section covering medium-term industry outlooks for the next three to five years, highlighting many of the opportunities and challenges facing the sector on its journey towards doubling agricultural production by 2040.

This report is one of many initiatives being delivered to underpin the sector's growth since the creation of the Department of Agriculture, Fisheries and Forestry (DAFF) in March 2012. Some key initiatives include:

- releasing *Queensland's agriculture strategy*, which includes a vision for an efficient, innovative, resilient and profitable sector, and underpins a goal to double Queensland's agricultural production by 2040
- releasing Queensland's most comprehensive Agricultural Land Audit, which identifies important land for current and future agricultural production, as well as developing an interactive tool to help councils use the land audit in their planning decisions



**The Honourable
Dr John McVeigh MP**
Minister for Agriculture,
Fisheries and Forestry

- increasing the Queensland Government's investment in key commodities such as sugar, beef, grains and tropical pulses, which has considerable future growth potential in Asia
- releasing Queensland's Agricultural Research, Development and Extension (RD&E) Plan, which sets the direction for the next wave of productivity growth
- improving Queensland's biosecurity preparedness by implementing new systems that more effectively manage pest and disease threats to animals and plants
- delivering the new *Biosecurity Act 2014* which streamlines multiple acts into one act and focuses on the principals of shared responsibility, general biosecurity obligations and a risk-based approach
- developing strong trade ties that tap into burgeoning Asian food markets, through a joint trade mission with the Northern Territory Government to Indonesia, and a trade mission with Thailand and China (including Hong Kong), which focuses on opportunities for Queensland's sugar, beef and horticulture industries
- providing \$10 million financial support for the North Queensland Irrigated Agriculture Strategy (\$7 million from Federal Government and \$3 million from State Government)
- implementing the buyback of Queensland's commercial net fishing licences to help improve economic viability, productivity and sustainability of the industry
- undertaking a review of fisheries management in Queensland as it is currently complex, costly to administer, inconsistent and a burden on the State's commercial and recreational fishers
- producing a Queensland Government response to the Queensland Forest and Timber Industry Plan and implementing priority actions
- appointing new boards and directors to the Emerald Agricultural College and Longreach Pastoral College to ensure these colleges provide practical agricultural training that the industry needs
- obtaining a \$4 million grant from the Bill & Melinda Gates Foundation to research drought-resistant sorghum varieties suitable for the dry tropics through the recently renewed Queensland Alliance for Agriculture and Food Innovation (QAAFI) partnership
- revitalising frontline services to deliver on-ground solutions and outcomes for producers in areas such as wild dog management, tick control, crop protection and horticulture extension
- beginning the process to shift Queensland's regulatory systems to a more streamlined, client-focused model that encourages innovation, business resilience and growth, while removing unnecessary and costly red tape
- implementing the Growing the Agriculture Workforce Strategy aimed at helping industry to attract, retain and develop people in agricultural industries.

In response to the ongoing impacts of drought, the Queensland Government has boosted drought support by providing a package worth over \$31 million in 2013–14. The package includes fodder freight subsidies, emergency grazing in some national parks, an emergency water infrastructure rebate, land rent relief, water licence waivers, mental health workshops, improved road train access, and community support funding.

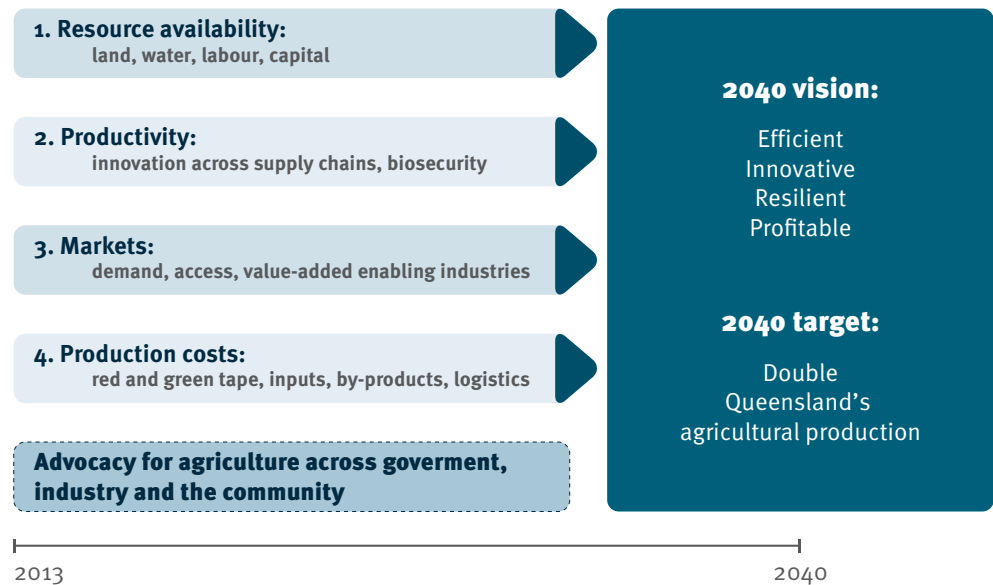
The Queensland Government has also responded to the needs of producers impacted by Tropical Cyclone Ita. Natural disaster relief and recovery arrangements were made available across a range of shires impacted by the cyclone. Producers were assisted with technical advice and given access to financial support, including concessional loans and freight subsidies to help re-establish primary production.

While getting producers back on track after the drought and cyclone is an immediate concern, in 2014 we will continue to deliver on a range of other key initiatives focused on driving long-term agricultural growth.

Purpose and scope

This report fulfils a commitment outlined in *Queensland's agriculture strategy* to develop the *State of Queensland agriculture report*, providing measures of vital growth indicators to the industry, and tracking progress towards the target of doubling agricultural production by 2040.

The report also delivers on the needs of Queensland's agricultural industries for consistent, industry-specific data for Queensland to establish baseline information, including a range of metrics across the four key pathways to production. The pathways are: resource availability, productivity, markets and production costs.



For the first time, this report captures and synthesises agriculturally relevant data from a wide range of providers including government, investment institutions and industry organisations. There is also some data and analysis that has never before been seen in Queensland, which will assist in painting a more accurate picture of the sector. Analyses include total factor productivity (TFP) and supply chain efficiency analysis.

This report is primarily targeted at Queensland's agricultural industries, agricultural bankers and investors, decision-makers in the upstream and downstream industries that support Queensland agriculture, and key decision-makers within government.

It aims to provide the target audiences with baseline data available at the time of publication, along with information to assist in decision making and reporting on progress towards achieving the target of doubling agricultural production by 2040. Data can be a powerful tool for targeting specific initiatives or projects aimed at addressing emerging issues and unlocking unrealised potential within the sector.

Although Queensland's key agricultural industries are the focus of this report, the report also includes metrics relating to forestry and commercial fisheries. Recreational fishing is mostly excluded.

This report provides an indication of the state of the sector now and looks forward at a range of medium-term outlooks for Queensland's key primary industries.

It also aims to highlight specific data from a range of sources. These sources are referenced in case further detail is required by the reader. For example, the *Queensland Agricultural Land Audit*, *State of Environment Queensland 2011 Report*, *2011 Rural Debt Survey* and *Queensland AgTrends*.

The Department reinforces its commitment to providing relevant information through the ongoing development and release of Queensland AgTrends reports which include the latest economic forecasts for the State's food, fibre and foliage industries. The main edition contains initial forecasts for the financial year and is published in October. Changes to the initial forecasts are reported in the subsequent April edition of *AgTrends Update*.

While the report is wide-ranging, there are some information gaps or areas where poor and unreliable data is available. For some indicators, data is shown for Australia as a whole if it is likely to be relevant to Queensland and if state-specific data is not available. The Department will continue to work with major data custodians such as ABARES, industry stakeholders and other government organisations to address these gaps in the future.

Particularly at the state and regional level, there are data gaps in:

- on-farm management practices
- skill levels and workforce requirements
- contract workforce
- level and nature of capital investment into the sector
- farm profitability across industries, regions and time
- productivity trends and drivers
- patterns of innovation within the sector
- patterns of research and development investment into the sector
- characteristics of the most successful producers
- ownership structures
- inter- and intra-state trade flows
- pre- and post-farm gate supply chain efficiency
- regulatory costs
- costs of managing biosecurity risks such as invasive plants and animals, and diseases
- ongoing reporting on rural debt in Queensland
- detailed indicators on sugar, fruit and vegetable industries.

The Queensland Government welcomes industry collaboration where more data is required. Not all data needs can be met cost-effectively; however, regular updates will be provided where possible. In the future, DAFF's work in supply chain analyses, such as the *Queensland Agricultural Transport Blueprint* and further work with the Federal Government to better classify agricultural skills and occupations, will help fill these gaps.

Executive summary

Queensland's agriculture, fishing, forestry and food processing industries have long made a major contribution to Queensland—not only to the economy, but also to society, history, culture and politics. These sectors will continue to make a contribution as the Queensland Government strives to achieve the target of doubling agricultural production by 2040.

This is an achievable target because of the enormous opportunities created by growth in emerging economies. These opportunities boost the demand for food and fibre in general, but also for high-quality, high-protein products that are Queensland's specialty. The sheer scale of this growth means that even with production doubled, Queensland will still only be providing a small proportion of the food imports needed by emerging economies in Asia.

The global economy is slowly recovering from the effects of the 2008 global financial crisis (GFC). Emerging economic growth—particularly in China, but also in India, Indonesia and a host of other emerging economies—is expected to remain strong for years to come. As a consequence, global commodity prices are likely to remain at relatively high levels. However, Queensland is not the only place wanting to expand its agricultural output. Global competition is increasing and it would be foolish to be overly optimistic about future price growth.

The Australian economy has performed better than most advanced economies since the GFC. A mining investment boom of historic proportions has been managed without an inflationary blow-out. One reason for this has been the high Australian dollar—peaking well above parity with the US dollar in 2011—which largely negated the value of high world commodity prices for Australian producers. The Australian dollar is now easing back towards more sustainable levels, so it has now become a source of support for the sector.

Seasonal variability remains one of the major challenges facing Queensland agriculture and this is not going to change. The year 2013–14 was a relatively dry year; with forecast production for the year revised downwards by \$190 million in the last six months. Financial stress has increased—and therefore other forms of family stress on-farm—with the proportion of broadacre farms experiencing low equity and high interest payments more than doubling over the last two years, to 11 per cent in 2013–14. Tailoring drought policies to meet the welfare needs of farming families in a way that supports, rather than diminishes, sound drought management practices and productivity growth on-farm remains an ongoing challenge.

Total output of the farm, fisheries, forestry and first stage processing sectors is forecast at approximately \$14.7 billion in 2013–14. Even with the dry season, this is 3 per cent above the five-year average and (after adjusting for input costs) represents around 4 per cent of gross state product. The sector is highly diversified, with the largest contributions from meat products (38 per cent), horticulture products (28 per cent), sugar (11 per cent), cereal grains (6 per cent) and cotton (5 per cent).

There are approximately 28 000 farm businesses in Queensland, plus approximately 1500 businesses in fishing, forestry and food processing. The number of farm businesses has been in steady decline, by approximately 1 per cent per annum. A significant proportion of farm businesses are not full-time operations, with as many as half of them only viable because of the availability of off-farm incomes.

Agriculture, including grazing, accounts for approximately 85 per cent of land use in Queensland. The State Government's recent Queensland Agricultural Land Audit identifies limited opportunities to expand the total amount of land available for agriculture. However, of greater promise is the opportunity to expand the intensity of land use through more intensive farming methods.

Agriculture, forestry and fishing businesses employ approximately 62 000 people. The entire supply chain however, including food processing, retailing, food services and transport, employs over 300 000 people.

Labour supply for the sector is limited. Unemployment of agricultural workers is low, at around 3 per cent, although there is a steady supply of apprentices and trainees. Supporting adequate skilled labour supply remains a major challenge for policy.

The sector receives its share of capital investment, which has resulted in strong growth of capital stock such as buildings and structures over the past decade. Investment is partly debt-financed, although debt is also incurred for other reasons, such as carry-on finance. A long-term trend increase in rural debt levels has been reversed in recent years.

Productivity trends can be masked by seasonal variations. However, it is clear that productivity growth in Queensland's agriculture, fisheries and forestry sector has been broadly in line with elsewhere in Australia and overseas, and in line with other industries in Australia. The sector appears to have experienced the general Australia-wide productivity growth slowdown of recent years.

The main drivers of long-term total factor productivity (TFP) growth are technological advances and innovation, as well as changes in scale and output mix. These are, in turn, driven by competition (including a facilitative regulatory environment), human capital, investment on- and off-farm (including infrastructure) and scientific progress.

A strong link between productivity and investment in research, development and extension (RD&E) has been established. Queensland has a strong profile in rural R&D, although as is the case for the rest of Australia, funding levels have declined over the past decade. This reflects a general trend towards shrinking public investment in research, which is driven by tightening fiscal conditions and increasing partnerships with institutions and industry that are supporting research to deliver commercial outcomes.

Much discussion and public attention focuses on 'average' farms. However, production, productivity and even technology and marketing trends are largely driven by the most successful farms. The top 25 per cent of farms are responsible for well over half of total output and most capital investment. Their rates of return are significantly higher than average, over a long period of time. These top 25 per cent of farms are found among all farm sizes, industries, ownership structures and regions, suggesting there is scope for better performance by many other farms.

Government assistance is provided to the sector and is estimated at around \$3 billion per annum across Australia as a whole. This represents an effective rate of assistance of 3.3 per cent, which is well below past levels and the levels provided in most other countries. This low level of assistance underpins the market- and innovation-orientation of the sector.

Overseas markets (exports) are worth approximately \$8.9 billion to the agriculture, fishing, forestry and food processing sector in Queensland and account for approximately 60 per cent of the sector's output. Interstate markets are worth approximately \$3.6 billion or 25 per cent of the sector's output, with the remainder being sold into the Queensland market.

The efficiency of the supply chain from the farm-gate to the ultimate consumer is a major issue for Queensland farmers. For other commodities such as poultry and lamb there appears to be a trend improvement in the farm-gate price relative to consumer prices. For most commodities such as fruit, vegetables and pork, little trend is apparent. Beef shows a slightly increasing gap between farm-gate and consumer prices.

Farm profitability is determined by trends in market returns and productivity relative to costs. The long-term trend decline in farmers' terms of trade (ratio of prices received to prices paid) has continued, but at a significantly slower rate since 1990. As a result, ongoing productivity growth has been supporting profitability.

The major farm costs are fuels, fertilisers and chemicals (16 per cent), depreciation (14 per cent), labour and interest (both 12 per cent), and seed and fodder (12 per cent). A spike in fuel, fertiliser and chemical prices prior to the GFC was broadly matched by the prevailing high world prices for food and fibre products (which were dampened by the rising Australian dollar at the time).

Other costs include transport, electricity, government regulations and pests and diseases. Transport costs are around 12 per cent of farm-gate returns, although this varies widely.

There is little detailed information available on the costs of regulations or managing biosecurity risks such as invasive plants and animals, and diseases. These costs include not only direct management costs but also the cost of opportunities foregone.

There is little information available on the costs of regulating Queensland's agricultural sector. Regulation costs include transactional costs associated with completing forms, costs arising from delays in approvals, and missed opportunities due to regulation. For example, redirecting innovative efforts from productive uses into avoiding regulations, or innovation lost from restricting competition within the industry. The Queensland Government is committed to reducing red tape by 20 per cent by 2018 to reduce costs for businesses, not-for-profit organisations, community groups, families and individuals.

Queensland's biosecurity systems provide the foundation for Queensland's agricultural productivity, market access, food safety, animal welfare and frontline defence against pests and diseases. These systems are coming under increasing pressure from growing global trade and movement of products and people. The costs of managing these impacts are difficult to ascertain. Effective surveillance systems will continue to monitor pest and disease status to ensure market access and demonstrate successful eradication.

Over the medium term to 2018–19, expectations for key commodities are for:

- cattle slaughter rates to increase gradually as Australia’s cattle herd is forecast to continue to move north to Queensland and the Northern Territory
- strong growth in national poultry meat industry gross value of production (GVP). Queensland is expected to lead this trend
- Queensland pig meat production growth and prices to be slightly higher than the national average
- Australian milk production to rise to approximately 10.1 billion litres in 2018–19, reflecting further increases in milk yield per cow
- national egg industry revenue to grow by 12 per cent. Queensland is forecast to follow this trend
- Queensland’s wool industry to grow steadily with prices expected to peak at 1155 cents a kilo in 2015–16
- Queensland’s fruit and nut industry to increase production, reflecting rising global demand
- further switching from mainstream Queensland cereal grains crops, such as wheat, sorghum and barley, into more minor but higher value crops
- continuation of relatively healthy output levels for sugar and cotton
- future market opportunities for timber and wood products due to population growth and associated housing demand consistently increasing timber demand
- stability in fisheries production and increasing opportunities in aquaculture.