



# BEEFING UP NORTHERN AGRICULTURE

Agriculture is widely recognised as one of northern Australia's key areas of possible growth and expansion. With its proximity to Asia, large land mass, high-rainfall and water resource developments, northern Australia's potential has been touted for many decades.

Rising demand from emerging economies, particularly in Asia, continues to create enormous opportunities, underpinning longer-term viability for northern Australian producers. However, to achieve its full potential, broad-scale expansion of the region's agriculture industry is necessary but has been slow to materialise.

Capital investment and AgTech have been publicised as catalysts for the next wave in growth and expansion in the global agriculture sector. As northern Australia expands not only its existing agriculture sector, but also develops multiple greenfield developments – ranging from aquaculture, tropical fruits and horticulture – attracting new investment and utilising it well will be core to the success of northern Australian agriculture.

## THE FACE OF NORTHERN AUSTRALIAN AGRICULTURE

Northern Australia agriculture was worth approximately \$8.3 billion in 2016/17 – just under 14 per cent of total Australian agricultural production. Northern Australia's industry has been dominated by cattle production for many years, which continues to be the largest single commodity produced. However, recent years has seen the rise of a number of alternative commodities, particularly horticulture.

While northern agriculture production largely reflects the distribution of soil and water resources, the promise of infrastructure spend has led to a renewed focus on sugar and a range of horticulture commodities, including bananas, mangoes, melons and avocados. Irrigated production makes-up a considerable part of this production, totalling approximately \$2.6 billion in 2016/17 with the majority of this production in Queensland.

Indeed, the CSIRO identified a potential increase of 50 per cent in the total value of Australian agricultural production stemming from around 90 water resource projects north of the Tropic of Capricorn.

Growth in the northern Australian agriculture sector has also been driven by Federal and State Government investment in water and transport infrastructure, thus enhancing the area available for intensive agriculture and reduce transport times to port.

---

## CAPITAL INVESTMENT AND AGTECH HAVE BEEN PUBLICISED AS CATALYSTS FOR THE NEXT WAVE IN GROWTH AND EXPANSION IN THE GLOBAL AGRICULTURE SECTOR

---

On current distribution of irrigated commodity production across northern Australia, an increase of 1.1 million hectares of irrigated land in northern Australia could see agricultural production grow by as much as \$7.4 billion in 2016/17 figures, although this figure will be further influenced by the quality of soils and access to potential irrigation schemes.

## 2016/17 Gross Value of northern Australia Agricultural Production<sup>1</sup>

	Total (million)
Cattle and calves	\$4,923.1
Sugar cane	\$1,321.2
Bananas	\$530.4
Pulses	\$236.7
Tomatoes – fresh market (outdoor and undercover)	\$109.1
Mangoes	\$103.7
Cotton lint – (irrigated and non-irrigated)	\$94.3
Wheat	\$87.0
Avocados	\$60.5
Poultry	\$57.7
Hay	\$55.2
<b>Total agriculture</b>	<b>\$53.8</b>

Source: ABS, ANZ

## THE INVESTMENT CASE FOR NORTHERN AUSTRALIAN CATTLE

To attract investment and capital to northern Australia, it is important to highlight the region's growth potential and to demonstrate the advantages it has over its southern counterparts, where many fund and capital managers are based and focused.

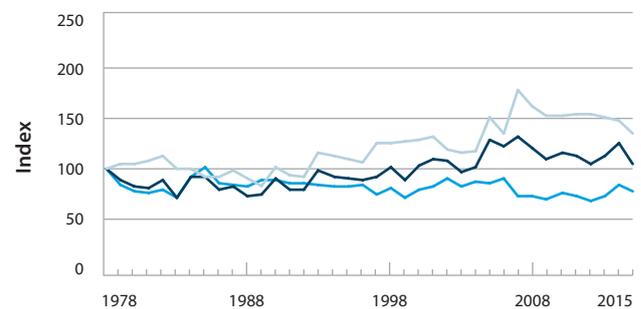
The most obvious comparison between the northern and southern industries lies in cattle. Research has shown that northern Australia's cow/calf production system of selling into live export markets, typical of northern beef production, to be the most efficient and cost-effective cattle production system.

Data from the Australian Bureau of Agricultural and Resource Economics and Statistics (ABARES) compares the financial performance, production costs and productivity of the northern and southern beef production systems over a number of years.

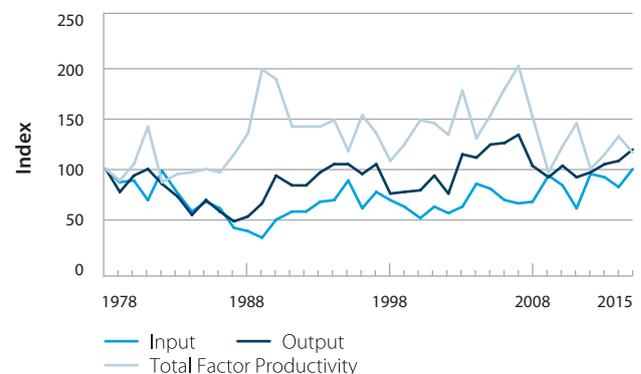
ABARES data shows that since 2007/08 the northern beef production system has grown in productivity at a stronger rate than the southern system, reversing a 20-year trend.

Industry research, a more strategic approach to building and developing new markets, and the adoption of AgTech have all played a part in improving farm gate returns and, as a consequence, attracting new capital to the sector.

## NORTHERN BEEF PRODUCTION



## SOUTHERN BEEF PRODUCTION



Source: ABARES, ANZ

Land and capital values in the northern and southern regions have followed similar trends, increasing 55 per cent from 2000/01 to 2015/16 in both regions, with a greater trend towards farm consolidation in the south than the north. However given the overall lower value of land per hectare in northern Australia and the push towards farm consolidation in the south, capital investment trends show that southern producers spent a greater proportion of investment on land while northern producers were able to utilise capital to invest in key drivers of cashflow, such as stock numbers and productivity improvements.

On these figures, northern Australia presents a strong case for investors looking for a relatively stable cost base, with greater ability to reap short-term gains on livestock investment compared with the sunken capital required for purchasing land and achieving scale in the south.

As a result, investors will turn their focus to the potential for income and productivity gains which come from further capital investment in northern Australian agriculture.

One answer to this lies in the potential of AgTech to lift productivity and output for northern Australian cattle, horticulture, aquaculture and cropping producers alike.

<sup>1</sup> Production figures calculated on SA2 basis, and provide approximate figures only.

## AGTECH AND GROWING NORTHERN AUSTRALIAN AGRICULTURE

A report by ANZ (2017) on the role of AgTech in Australian agriculture found that 62 per cent of the sector's productivity growth since 1995/96 was a result of technological advancements.

Furthermore, for every 1 per cent increase in capital investment in the agriculture industry, there is a 1.5 per cent increase in technology-based productivity gains.

While productivity in the northern Australian cattle industry is well discussed, the new wave of horticulture, fisheries and other non-broadacre farming will deliver new investment and capital into the industry. But how will this impact the industry's value?

Analysis of the northern Agricultural sector, its capital base and potential growth scenarios highlight the need for additional capital investment and, most importantly, capital investment which increases productivity either by increasing outputs or lowering costs.

For instance, attracting \$15 billion of additional capital, which improves productivity growth to 3 per cent each year, would result in a 52 per cent increase in the size of the industry by 2030 – a cumulative increase in production of almost \$73 billion. In contrast, attracting just \$4.7 billion, or capital growth of 0.5 per cent and productivity growth of 1 per cent per year, would result in a 16 per cent larger industry with cumulative growth of \$57 billion.

These figures highlight not only the importance of attracting investment to the north, but also the need to attract the right investment, which increases the productivity of existing resources, including land, water, equipment and livestock. It also shows the potential that exists for investors and capital to invest in growing the size of northern Australia's agriculture industry.

In addition to attracting capital there are, however, a number of well-documented hurdles to achieving productivity growth. These include:

- **Transport and logistics infrastructure** – Large distances from production to port mean that investment in infrastructure is required to lower transport costs and ensure that produce can be exported in a timely manner, without a loss in quality;
- **Branding** – Differentiating and value-adding for northern Australian produce, as distinct from generic Australian produce, both for domestic and international markets;
- **Land titles** – Improving certainty around land tenure will increase investors' willingness to invest against land as a long-term asset;
- **Developing water resources** – Water remains one of northern Australian agriculture's key advantages, however, it is currently underutilised, constraining growth, particularly in water-intensive industries such as horticulture.

---

**FOR EVERY 1 PER CENT INCREASE  
IN CAPITAL INVESTMENT IN THE  
AGRICULTURE INDUSTRY, THERE  
IS A 1.5 PER CENT INCREASE  
IN TECHNOLOGY-BASED  
PRODUCTIVITY GAINS**

---

## IMPACT OF CAPITAL INVESTMENT AND PRODUCTIVITY GROWTH FOR NORTHERN AUSTRALIAN AGRICULTURE

	Base Case	Moderate Case	Aggressive Case
Capital stock growth	0.5% p.a.	1.0% p.a.	1.5% p.a.
Productivity growth	1%	2%	3%
<b>Impact of Capital Investment and Technology on Production</b>			
Additional capital required by 2013	\$4.7b	\$9.7b	\$15.0b
Size of northern Australian agriculture industry by 2030	\$9.6b	\$11.0b	\$12.6b
% Growth in industry since 2017	15.7%	33.0%	52.1%
Cumulative growth in production between 2018 and 2030	\$57.0b	\$64.6b	\$72.7b

## CONCLUSION

Despite many years of talking about the potential for growth and expansion in northern Australian agriculture, progress to date remains relatively subdued. Slow progress in the expansion of identified irrigation schemes and difficulties associated with turning government and industry intentions into concrete outcomes has meant that much potential is, as yet, unfulfilled. This may, in part, be due to a range of risk factors that are unique to northern Australia and which any potential investor must also consider. These include the heavy exposure of the northern Australian cattle industry to the Indonesian live export market, unpredictable seasons and rainfall, and the need for direct air freight routes to improve the viability of the northern horticulture industry.

While there is clear potential for expansion in the northern Australian agriculture industry which supports the case for investment and capital from outside government, there remains a number of hurdles and risks facing the development of the industry.

As agriculture continues to boom across Australia, competition for investors' capital is also increasing. Taking advantage of capital and investment to improve productivity in northern Australian agriculture will rely on the industry's and producers' ability to underpin their own business and investment cases which mitigate those risks faced in northern Australia.

### MARK BENNETT

Head of Agribusiness,  
Emerging Corporate,  
Business and Private Banking  
T: +61 3 8655 4097  
E: mark.bennett2@anz.com

### STEPHEN RADESKI

State Agribusiness Manager,  
South Australia and Northern Territory,  
Business Banking  
T: +61 4 2161 8371  
E: stephen.radeski@anz.com

### BRENDAN RINALDI

State General Manager,  
South Australia and Northern Territory,  
Business Banking  
T: +61 8 7088 9159  
E: brendan.rinaldi@anz.com

The distribution of this document or streaming of this video broadcast (as applicable, "publication") may be restricted by law in certain jurisdictions. Persons who receive this publication must inform themselves about and observe all relevant restrictions.

#### 1. Disclaimer for all jurisdictions, where content is authored by ANZ Research:

Except if otherwise specified in section 2 below, this publication is issued and distributed in your country/region by Australia and New Zealand Banking Group Limited (ABN 11 005 357 522) ("ANZ"), on the basis that it is only for the information of the specified recipient or permitted user of the relevant website (collectively, "recipient"). This publication may not be reproduced, distributed or published by any recipient for any purpose. It is general information and has been prepared without taking into account the objectives, financial situation or needs of any person. Nothing in this publication is intended to be an offer to sell, or a solicitation of an offer to buy, any product, instrument or investment, to effect any transaction or to conclude any legal act of any kind. If, despite the foregoing, any services or products referred to in this publication are deemed to be offered in the jurisdiction in which this publication is received or accessed, no such service or product is intended for nor available to persons resident in that jurisdiction if it would be contradictory to local law or regulation. Such local laws, regulations and other limitations always apply with non-exclusive jurisdiction of local courts. Before making an investment decision, recipients should seek independent financial, legal, tax and other relevant advice having regard to their particular circumstances.

The views and recommendations expressed in this publication are the author's. They are based on information known by the author and on sources which the author believes to be reliable, but may involve material elements of subjective judgement and analysis. Unless specifically stated otherwise: they are current on the date of this publication and are subject to change without notice; and, all price information is indicative only. Any of the views and recommendations which comprise estimates, forecasts or other projections, are subject to significant uncertainties and contingencies that cannot reasonably be anticipated. On this basis, such views and recommendations may not always be achieved or prove to be correct. Indications of past performance in this publication will not necessarily be repeated in the future. No representation is being made that any investment will or is likely to achieve profits or losses similar to those achieved in the past, or that significant losses will be avoided.

Additionally, this publication may contain 'forward looking statements'. Actual events or results or actual performance may differ materially from those reflected or contemplated in such forward looking statements. All investments entail a risk and may result in both profits and losses. Foreign currency rates of exchange may adversely affect the value, price or income of any products or services described in this publication. The products and services described in this publication are not suitable for all investors, and transacting in these products or services may be considered risky. ANZ and its related bodies corporate and affiliates, and the officers, employees, contractors and agents of each of them (including the author) ("Affiliates"), do not make any representation as to the accuracy,

completeness or currency of the views or recommendations expressed in this publication. Neither ANZ nor its Affiliates accept any responsibility to inform you of any matter that subsequently comes to their notice, which may affect the accuracy, completeness or currency of the information in this publication.

Except as required by law, and only to the extent so required: neither ANZ nor its Affiliates warrant or guarantee the performance of any of the products or services described in this publication or any return on any associated investment; and, ANZ and its Affiliates expressly disclaim any responsibility and shall not be liable for any loss, damage, claim, liability, proceedings, cost or expense ("Liability") arising directly or indirectly and whether in tort (including negligence), contract, equity or otherwise out of or in connection with this publication.

If this publication has been distributed by electronic transmission, such as e-mail, then such transmission cannot be guaranteed to be secure or error-free as information could be intercepted, corrupted, lost, destroyed, arrive late or incomplete, or contain viruses. ANZ and its Affiliates do not accept any Liability as a result of electronic transmission of this publication.

ANZ and its Affiliates may have an interest in the subject matter of this publication as follows:

- They may receive fees from customers for dealing in the products or services described in this publication, and their staff and introducers of business may share in such fees or receive a bonus that may be influenced by total sales.
- They or their customers may have or have had interests or long or short positions in the products or services described in this publication, and may at any time make purchases and/or sales in them as principal or agent.
- They may act or have acted as market-maker in products described in this publication.

ANZ and its Affiliates may rely on information barriers and other arrangements to control the flow of information contained in one or more business areas within ANZ or within its Affiliates into other business areas of ANZ or of its Affiliates.

Please contact your ANZ point of contact with any questions about this publication including for further information on these disclosures of interest.

#### 2. Country/region specific information:

Australia. This publication is distributed in Australia by ANZ. ANZ holds an Australian Financial Services licence no. 234527. A copy of ANZ's Financial Services Guide is available at <http://www.anz.com/documents/AU/aboutANZ/FinancialServicesGuide.pdf> and is available upon request from your ANZ point of contact. If trading strategies or recommendations are included in this publication, they are solely for the information of 'wholesale clients' (as defined in section 761G of the Corporations Act 2001 Cth). Persons who receive this publication must inform themselves about and observe all relevant restrictions.