



Implications of Increasing Brazilian Beef Production for Australia

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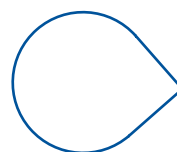
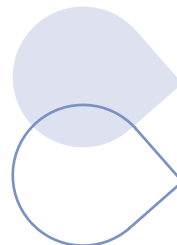
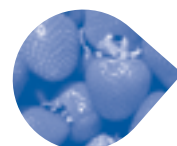
Brazil has impressive agricultural productivity underpinned by good soils and climate. It has been the world's leading exporter of beef since 2004 and has the potential to further expand production for both domestic and export markets, with a highly consistent product. Producers and processors have the support of government in the development of their industry and government is working successfully with private enterprise to develop the infrastructure needed to grow export markets. Herd genetics are also improving, albeit slowly. Disease control and traceability of cattle to point-of-origin are potential problems as the current control systems are susceptible to corruption. Given Brazil's potential production capacity and demonstrated ability to overcome production issues, if Australia is to compete into the future it may need to look at 'filling the gaps' in the market. There are also opportunities for a cooperative approach between Australia and Brazil and an exchange of skills and knowledge that would benefit all concerned.

In 2007 I travelled to Brazil as part of a Nuffield scholarship researching agricultural production and workforce issues, and was overwhelmed by that country's ability to produce food. It appeared to be an agricultural paradise. This paper provides a producer's perspective of the challenges Brazil faces as a major player in the global beef market, and the implications for Australia, based on first-hand information from my travels and discussions with Brazilian Government representatives, producer groups, farmers and processors. I drove more than 2000km and flew 4000km across the central part of the country – a landscape where impressive productivity was clearly demonstrated, with sugar and soybeans side-by-side with cattle and coffee.

Brazil is an amazing country in many respects. It has a population of 195 million people and is almost 1.2 times as big as Australia. The topsoil is between 14 and 20 meters deep and the annual rainfall ranges from 1000 to 1500mm. The ability of Brazil to grow anything from cattle to coffee is the first impression of most agricultural visitors.

Since 2004, Brazil has been the world's leading exporter of beef, selling to 140 countries including Russia, Egypt, and Italy. Brazil's government puts the number of cattle at 200 million, and annual earnings from export are more than US\$4 billion. Foremost in producers' thoughts is the importance of better genetics and better eating quality. Government officials promote the ability of Brazil to meet the challenges of required new infrastructure through partnerships with private consortiums. The producer representatives are highly professional and clearly have the support of government in promoting the interests of producers.

There has been a significant national investment in production technology, including breed improvements and processing facilities. One of the most exciting aspects of my time in Brazil was to experience the passion of the people (typified by their attitude to football). Nothing seemed too hard and the lesson to take away is that Brazil will be a formidable player in the cattle industry; Australia would be wise to take heed.



Infrastructure

Brazil is huge even by Australian standards and years of unstable government have seen the development of national roads and rail networks lag behind that of other countries. Although roads in and around major cities are better than many others, the further away from ports you travel the worse the roads become. A major battle for Brazil in expanding its beef production and exports will be overcoming its lack of infrastructure.

Partnerships with private enterprise have produced amazing results, such as the toll road in Figure 1, and this is an important part of Brazil's strategy in overcoming its problem of poor roads and rail. However more work will be needed in rural areas where cattle production is higher but where the people are currently left to fend for themselves.



Figure 1: The contrast between a toll road and a government road near Campo Novo.
Source: Suzuki 2008

Figure 2 illustrates how limited Brazil's rail system is compared to the US, and this is infrastructure that is becoming progressively more expensive to build. However, Brazil has a huge workforce and large manufacturing industry so is well placed, with better governance, to build a large rail network. Rail currently accounts for 25 per cent of transportation of freight, (Suzuki 2008) and this is expected to grow as more rail facilities are built.



Figure 2: Railway – Density (Brazil versus USA).
Source: Suzuki 2008

Private enterprise is rising to the challenge and companies such as Ferronorte and Alstom are leading the charge to expand the transport network. The movement of grain is largely driving this development, however all agricultural industries, including the beef industry, are set to benefit. Processing infrastructure is also being upgraded by the private sector, by companies such as Bertin, which is one of Brazil's leading integrated beef and hide processors.

With a population of almost 200 million people, Brazil has a huge domestic market for beef consumption. New infrastructure and processing facilities will increase the efficiency of the beef industry. Local processing in the regions where beef is produced for the domestic market will remove the need to ship animals long distances for slaughter, increasing efficiency. Better rail and transport services will additionally allow the country to better harness the productive capacity of regional areas to expand exports, growth which is currently being stymied by the poor transport infrastructure.

Government

Brazil's Government is a 'federal presidential representative democratic republic', whereby the President is both head of state and head of government. Executive power is exercised by the government. Legislative power is vested in both the government and the two chambers of the National Congress. The Judiciary is independent of the executive and the legislature. The country also has 26 states and one federal district and these are then broken down into municipalities.

The past has been turbulent with dictatorships and military rule. However since 1985, when the military control of government was defeated, there has been greater stability. Since 1995 there have also been improved economic circumstances, supported by the economic decision-making of President Fernando Cardoso, who held office from 1995 to 2003. Luiz Lula da Silva is the current President, following on from Cardoso, and even though there have been corruption issues, the Government has remained relatively stable, with strong economic growth. This is reflected in the

increasing value of Brazil's currency compared to the US dollar, which was 15:1 in 1990, and is now 1.7:1.

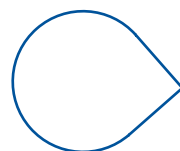
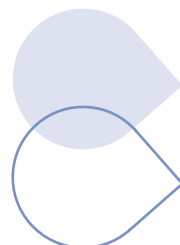
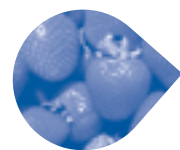
It is important to recognize that a stable government in such a rich agricultural country is a very powerful tool when it comes to trade. Jokes about Brazil as a "Banana Republic" are a thing of the past. The fact that Brazil's Government recognizes the importance of agriculture including beef exports is significant as supporting policy and development in a way that makes projects happen.

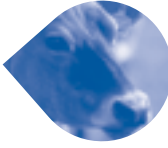
The quality of beef

Don't let anyone tell you that beef from Brazil is of poor quality. Great beef can be eaten anywhere from a roadside café in Goiania to top restaurants in Rio de Janeiro. The eating experience is a big part of consuming any meat in Brazil. The presentation of beef as a meal is quite different to the conventional Australian presentation. It is unlikely to be presented as a steak on a plate, or as a beef casserole. It can be quite a spectacle, with waiters who bring out swords with the various meat cuts attached. The fanfare focuses on providing a first-class dining experience that allows lesser quality cuts of meat to be prepared and served in a variety of ways. Restaurants are not afraid to present sausages or cuts of blade or round steak as a first class meal.

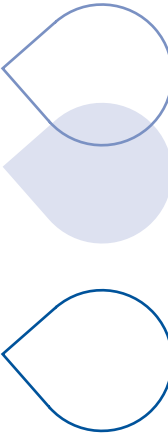
The Brazilian and Australian export beef markets have a similar value; although Australia exports less beef it is worth more than Brazil's. The scale of beef production in Brazil is amazing. What they lack in the quality of breeding, as compared to Australia, they make up for in the uniformity of their cattle. Australia has a very large variation within breeds as well as across the country, as a result of climatic variation.

The Brazilian breed, the Nelore, is the original breed and makes up the basis of the cattle herd. They are *Bos Indicus*, so are well suited to the tropical climate. They are a large breed with limited marbling ability and surpass all other breeds under drought conditions so produce a carcass that is relatively lean and well suited to the





European Union market. Brazilian cattle tend to be of more even size and frame than Australian cattle, with good temperament. The quality of the beef cattle themselves is consistent and improving. This consistency is related directly to the feed the cattle consume and the improvement in genetics.



As is the case with many industries, change can be slow with ingrained ideas and differences hindering progress. There are some obvious signs of resistance among Brazilian producers to changes in herd genetics. Australian and US beef judges have attracted criticism for not following local leads when taking part in judging events in Brazil. However, that has not stopped many enterprising producers sourcing new genetics and information through a range of channels, including 'backyard' deals.

Many Australians would baulk at processes used in Brazil as a common way of doing business. New genetics are arriving from around the globe and so the herd is improving. The down-side to this ad hoc approach to herd improvement is that there are many small herds that will not have access to these expensive new genetic improvements. It could be argued that Australia has the same issue.

Brazil's climate, coupled with wonderful soils, means there are millions of hectares of grazing land available with the ability to grass fatten or finish the entire herd without supplements. This is by far Brazil's biggest advantage: a considerable low-cost ability to finish a consistent product.

It is easy to argue that given this feeding regime, Brazil is unlikely to end up with diseases such as Bovine spongiform encephalopathy (BSE, or Mad Cow Disease). Foot-and-mouth disease is another, more likely, health issue but Brazil's System for Bovine and Buffalo Identification and Certification of Origin (SISBOV) will be part of the country's response in managing outbreaks of disease.

However Australia provides a higher level of accountability in tracing the origin of cattle, which provides us with a competitive advantage in markets concerned about this issue. As competition for market share increases, Brazil

may need to put more resources into biosecurity measures and may even need to consider closing its borders to protect its valuable beef industry.

Accountability

Demand for improved accountability in all parts of the beef cattle production chain is largely being driven by forces external to Brazil, some of which may be at odds with the way many Brazilians currently do business. The requirements for better processing facilities and trace back of cattle to point-of-origin are coming from the EU and from other importing countries. Pressure to be more environmentally sound has also been a driver



in the modernizing of Brazil's meat processing industry.

To get an insight into Brazil's beef industry it is important to understand the people. They are very proud of their past, their future and themselves. They will show the best and the worst of their country, and do not hide the fact there is an inequity between rich and poor. As one Brazilian said to me as I traveled, "This is what makes Brazil go round". Their system works for them and they do not readily take advice from other countries, however large they may be.

They have faith in their own potential and capacity to deal with whatever comes their way. Their country is powering ahead on the strength

and positive outlook of the people. A great example of this is expansion of Brazil's JBS meat processing company which has become the largest processor in the US with the recent purchase of Smithfield Foods' processing operations, and this year's purchase of the Australian meat company Tasman Group.

The downside of this "make it happen" attitude is the blurring of business accountability. Many of the country's business and control systems, including disease control, are susceptible to bribery and corruption. The repercussions of this could be substantial if, for instance, there is a significant outbreak of foot-and-mouth disease which is already present in the north



of the country. It is not uncommon for official SISBOV tags to be removed from stock and tags from regions able to export put in place to allow trace back and sale. For the cost of a few Real (Brazilian currency) it may also be possible to move cattle without documentation. "Turning a blind eye" could bring down the industry. There is mounting pressure from the EU in particular to change the Brazilians' attitude, although this is being driven in part by increasing competition from Brazilian beef with EU markets, as one way of stemming the flow of imports.

Future

Brazil and Australia are not yet direct competitors in the beef export market. At present Australia

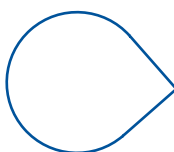
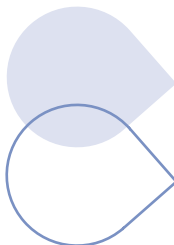
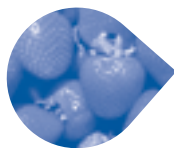
has no disease problem, is a world leader in traceability and has reasonable infrastructure with established markets. The markets we target are different to those Brazil targets so we are not really direct competitors. But given how far Brazil has come economically and the stability and support provided by its current government, it would be very unwise to think that this will remain the case, or that Australia will have an advantage in direct competition.

Initially, it would seem that if Australia is to compete with the huge productive capacity of the Brazilian beef industry we should look to fill in the gaps, rather than taking them head-on.

This is the longer-term view as it is going to take time for Brazil to build and modernize infrastructure and to comply with international standards including disease control, trace back and biosecurity.

Only four per cent of Brazil's herd is finished in a feedlot compared to 40 per cent in Australia. This means Brazil is better placed to deal with the increase in grain prices. The Australian industry sends the large part of its export to Japan which is primarily a grain-fed market. Brazil on the other hand sends beef mainly to Europe which is a grass-fed industry. With grain increasing in value it seems obvious that grass feeding is likely to stage a recovery due to the lower input costs. This then puts us head-to-head with Brazil. This is a position that could be won in the short-term however would be hard to maintain as Brazil improves its cattle industry. Any small improvement in infrastructure or biosecurity would see Australia reeling from the competition.

Brazil has repeatedly demonstrated its ability to overcome issues of production, processing, supply and demand. The best way to see where Brazil's cattle industry will go is to look at other agricultural industries and take heed of their progression. Sugar is a great example. The industry took the call to develop ethanol. As early as 1930 they began experimenting with alcohol fuel. In the early 1970s the response to rising oil prices was to produce ethanol. Now they are undoubtedly the world leaders with 25 per



cent added to gasoline. They now have a viable alternative for the production of sugar. There has been a similar change in the soybean industry and there is a viable biodiesel industry. Brazil has an agreement with Argentina to supply ethanol in return for wheat. They recognized that they were not good at wheat growing and found a way to solve the problem. Remember they are very good at growing beef.

Chicken, a competitor of beef, is the biggest success of agricultural exports in Brazil. The country supplies over half of the world market and over 140 countries. The country produces nine million tonnes of chicken of which three million tonnes is exported and the remainder used internally. The industry is modern with excellent processing plants and gives the world an insight into Brazil's ability to adapt to change. Brazil has doubled its exports over the past five years and is a leader in many commodities such as soy beans, sugar, beef, chicken and others identified in Table 1 below.

Recommendations

For Australia's cattle industry to compete directly with Brazil will be a big task. Recognizing and respecting the power and capacity of Brazil to grow an agricultural industry is paramount if we are to succeed in a shared marketplace. Looking at how Australia has competed with the US during the subsidy era should give Australian producers

an insight into the likely result if Australia were to compete with Brazil, a non subsidized nation. The result would be a hard road for Australia as the playing field would be relatively even. The sheer size of the Brazilian market would make it extremely powerful. Quality of product and ability to deliver would become important in any head-to-head competition.

Brazil, with its home consumption and large workforce will always have the advantage when it comes to production through-put. Australia's consumption of beef is relatively high by world standards however with a population approximately 10 per cent of Brazil's, the total volume of home consumption is low. High domestic consumption in Brazil means that the economies of scale they have can be transferred easily between export and domestic markets. Brazil has the advantage of fantastic soil, plenty of rain, a large workforce and low input costs. Australia needs to understand that it cannot compete head-to-head on those factors.

A major change in thinking by Australia's beef industry has to take place if it is to keep up with Brazil's potential. The cost associated with grain feeding beef as well as the pressure being applied to live exports puts Australia in a position that is quite defensive. Animal welfare, rightly or wrongly, is a potentially explosive issue and the beef industry should not ignore the warning signs. Intensive feeding of animals is also on

Table 1: Brazil's world market commodity export ranking, 2006.

Source: Brazilian Agribusiness

Main Products	Production	Exports	World Market Share
Sugar	1st	1st	41%
Coffee	1st	1st	28%
Orange Juice	1st	1st	82%
Ethanol	2nd	1st	
Tobacco (2005)	2nd	1st	27%
Soy Complex	2nd	1st	37%
Beef	2nd	1st	27%
Poultry	2nd	1st	39%
Maize	3rd	3rd	6%
Pork	3rd	3rd	11%

the welfare agenda and consumers within the EU are well aware of how animals are treated. Australia has done amazing things with cattle in the past and has been innovative in production and management. Individual producers and the industry as a whole need to ensure they are ready for future challenges.

Brazil has not developed lot-feeding and is actually better placed to push the “natural” product. The Brazilians do have issues with perceptions that they are clearing Amazon rain forests to graze cattle. They are not seen as clean and green in their production and it will take a lot to change that thinking. If Brazil can address the potential for abuse in its biosecurity and trace-back systems to improve disease control and the public perceptions about land clearing it will put the country at the forefront when it comes to meeting the increasing world demand for protein.

Australia may well find that it is indeed “filling in the gaps” left by Brazil in the future. However there are opportunities for a cooperative approach and an exchange of skills and knowledge that would benefit all concerned. With both countries in the southern hemisphere, product shipment issues are the same as are a number of production and breed problems. Seeing Brazil as a close ally would be far more productive to Australia’s beef industry in the long term as it may open the doors to Brazilian workers and give Australian managers the opportunity to work in Brazil. Australia is already struggling to find a workforce for beef processing and urgent action is required on this front. The impediment to recruiting Brazilian workers at present is the convoluted process to get a visa for work or business. It should be noted that New Zealand has a no-visa policy regarding Brazil so there is a free flow of people between those two countries

Australia’s beef industry is wide and varied, from smaller British breed-based mobs in the south of the country to large Brahman-based herds to the north. Management of Brazilian herds would benefit from Australian input. If the industry were to support free work travel between countries the benefits would be numerous, including helping solve a problem of the shortage of skilled

workers in Australia, and improving the genetics of cattle in Brazil just to name a couple (Suzuki 2008). According to the Food and Agriculture Organization (FAO), Brazil currently has 78 million hectares in production, but has potentially another 300 million hectares of arable land available, outside the Amazon region. This should be taken into account when considering the future of the Brazilian beef industry. If we don’t take Brazil for granted Australia may just survive.

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About the Author

Ronald Thompson, a 2006 Nuffield Australia Farming scholar, travelled internationally in 2007 researching agricultural production and workforce issues. He operates a 935ha intensive, irrigated farm enterprise at Chinchilla, Queensland, with wife Sally. They produce a diverse range of horticultural crops, cotton and cereals, and run up to 400 head of beef cattle on improved pasture. Mr Thompson has an Advanced Diploma in Agricultural Business Management and is a director of Nuffield Australia.

