The Feasibility of Establishing Further Meat Processing Capacity In Tasmania

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Study Report

Final

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This report has been prepared for the State of Tasmania (acting through the Department of Primary Industries, Parks, Water and Environment) by Meridian Agriculture Pty Ltd.

The views, conclusions and recommendations in the report are those of the authors. Field notes and records of conversations with individuals, whilst used to arrive at conclusions and recommendations, have not been included in the final report.

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Executive Summary

Processing meat for domestic and international markets is a highly competitive activity that is subject to wide swings in profitability.

The key points of this report are summarised below:

1. International, National and Tasmanian Trends

   1.1. Domestic and international markets for meat are highly competitive markets that are strongly influenced by international factors beyond the control of domestic producers, processors and consumers.

   1.2. The profitability of meat processing is heavily influenced by scale and throughput, and technologies that reduce inputs such as labour.

   1.3. At the commodity level, Australia has the meat processing capacity it needs, and there is the flexibility and scope to increase capacity if, when and where it is required.

   1.4. Nationally and locally within Tasmania the meat processing sector has been undergoing rationalisation over the last fifty years in response to economic pressures and technological developments.

   1.5. The geographic location of red meat processing facilities is determined by the businesses that invest in them and is dictated by the location of livestock supply and efficient transport links.

   1.6. The structure, conduct and performance of livestock and meat markets is that of free markets, subject to meeting regulatory standards.

2. Tasmanian Themes

   2.1. It is assumed that livestock shipping across Bass Strait will continue as will the Tasmania Freight Equalisation Scheme (TFES). The TFES is of major benefit to the red meat industry and more broadly Tasmania’s economy.

   2.2. Tasmania is an integral and closely integrated part of the international and Australian red meat industry.

   2.3. The scale economies achievable by meat processing facilities in the state is limited by Tasmanian livestock numbers and the highly seasonal supply of livestock from Tasmania’s pasture-based livestock production systems. Supplying livestock consistently through the year, although more profitable for processors, is challenging and costly for producers.
2.4. There is scope for increasing pasture production and livestock numbers by implementing further the known technologies of growing and managing improved pastures. The potential is undisputed but the rate of improvement will probably be at about the same rates of productivity increases in the beef and sheep sectors that have been achieved in recent decades.

2.5. Micro and small abattoirs meet an important local demand for niche red meat processing and service kill, particularly the needs of specialty butchers. This demand is small relative to the scale of the local and national industries and has minimal implications for livestock moving to and from Tasmania.

2.6. Government assistance to industry to provide stability in periods of adjustment is valid. Calls for government owning or operating meat processing facilities in the State are not defensible.

3. Provenance of Food in Tasmania

3.1. Provenance branding has practical potential for some individual firms. Meaningful brands are product specific, associated with specifically defined characteristics, owned and quality controlled by suppliers who are invested in the brand, with verifiable credence values.

3.2. Provenance branding is exploited by current Tasmanian meat processors, using product differentiation characteristics such as being grass-fed product, GMO-free, or product free from antibiotic and hormone growth promotant.

4. Pig Processing in Tasmania

4.1. Tasmanian pig production is declining.

4.2. Processing capacity in the future could be provided by established small and micro abattoirs, or by one or more new specialist facilities aligned to a specific production and marketing system.

5. Lamb and Sheep Processing in Tasmania

5.1. While there is sufficient processing capacity in a national context, a large volume of sheep and lambs leave Tasmania to be processed off-island. The return on capital required to construct a new green field sheep processing plant to annually process in the order of 700 000 units would need close examination from an economic perspective,

5.2. Expanding the capacity of an existing facility may be viable because of a significantly reduced capital requirement and associated economies of scale.
6. Beef Processing in Tasmania

6.1. The current capacity to process beef in Tasmania is sufficient to meet current and forecast demand and there is no demonstrated need for increased capacity.

6.2. Provenance branding has been successful in the Tasmanian beef sector and several companies, including The Tasmania Feedlot Pty Ltd, rely heavily on local Tasmanian processing.

6.3. While not currently considered to be at threat, any significant reduction of the current supply of beef processing capacity in Tasmania would pose problems for these companies, which, if not resolved, would have wider and probably adverse effects on the Tasmanian beef industry.
1. Introduction

1.1 Background

Following the departure of the meat processor JBS Australia from the Devonport City Abattoir (DCA) in 2018, and amidst growing disquiet from some people involved in the red meat production and processing industries throughout Tasmania, the Tasmanian Government set up the Tasmanian Meat Industry Working Group (TMIWG).

Meridian Agriculture was contracted to conduct a feasibility study to investigate the scope for increased commercial meat processing capacity on the island. The feasibility study is to help inform the Working Group’s strategic advice to Government and provide information for the industry.

1.2 Terms of Reference are to:

1. [Assess the] current state of the Tasmanian Meat Processing Sector – building on the economic assessment and risk analysis, identify meat processing capacity within Tasmania including processing volume (on and off island), species, regional distribution, domestic and export market, accreditation, standards, operating environment, competition.

2. Survey of producers and other industry stakeholders to identify factors such as sales (on and off island), economic drivers, current pathways to market, impediments and opportunities for export processing, future intentions, industry outlook and future growth potential in the context of the 2050 vision.

3. Analysis of factors influencing the viability of further meat processing capacity in Tasmania, including but not limited to consideration of:

   a. Economic factors – e.g. access to labour, transport, infrastructure, supply/production volumes (and variability), regional economic value, capital investment, cash flow, cost of operation

   b. Market factors – e.g. consumer preferences and demand, competition, transport and supply chain, premium value products, the Tasmanian brand, future markets/opportunities

   c. Technical factors – e.g. infrastructure, waste, water availability, technology, environment, regulation, location.

4. [Provide an] assessment and recommendations on the feasibility of increasing commercially viable meat processing capacity in Tasmania, be it through expansion, upgrading and diversification of existing facilities, or the establishment of new production capability, including recommendations regarding viable scale and operating models.
1.3 Assumptions

The possibilities of a cessation of all livestock shipping across Bass Strait and/or of the Tasmania Freight Equalisation Scheme have been considered but for the purposes of this report and in its time horizon it is assumed that neither possibility will eventuate. Livestock shipping across Bass Strait and between the Tasmania mainland and Islands would cease in the event of a major disease incursion (such as Foot and Mouth Disease) anywhere in Australia.

Concerns have been expressed during the consultations for this study in relation to the economic vulnerability of the Tasmania meat industry because of the relatively small scale, distance from markets, ‘over’ reliance on shipping, and the risk of processors closing more locally based plants. Whilst these are important considerations, it is reasonable to assume that in the event of a plant closure, livestock will still be marketable. If the cessation of shipping occurs it is reasonable to assume that there will be a notice period and time to establish new on island facilities. Abattoirs cannot be built and operated in anticipation of a possible future demand.

The opinions of red meat consumers have not been canvassed for this report as it is assumed Tasmanian consumers are similar to those from the whole of Australia demographic, which has been extensively studied from a marketing perspective by Meat and Livestock Australia. Such research has shown that price is ultimately the dominant consideration in the decision to purchase red meat. The lowest cost processor is able to deliver the lowest price to the customer.

1.4 Definitions

‘feasibility study, n survey or analysis of the need, value and practicability of a proposed enterprise’ (Macquarie).

Red meat, ‘the flesh and co-products of sheep cattle and pigs used primarily for food’.

1.5 No Commercial in Confidence Content- Permission Granted

The authors warrant that where comments are attributed permission has been granted and that there is nothing in the report which is commercial in confidence and would need to be removed from a public report.
2. Research Method

Over six weeks the members of the research team consulted with approximately eighty stakeholders in the Tasmanian meat (sheep, cattle and pig) industry, either in person or by phone (see Appendix 1: Full list of contacts & Focus group invitees for full list of contacts). Interviews had a structured format but questions were open-ended, allowing participants to comment on or raise any issue they considered likely to have an impact on the Tasmanian meat industry (see Appendix 2: Stakeholder Interview Structure and Questions for stakeholder interview structure and questions).

2.1 Producers and representative body

During the consultation phase of the study, focus group meetings that were predominately attended by farmers were held at Bothwell, Scottsdale, Ross and Smithton.

In follow up to producer consultation and the forums producers were provided with a questionnaire (see Appendix 3: Aggregated producer survey results) and sent follow up questions around the continuity of supply in Tasmania (see Appendix 4: Continuity of supply – Producer Answers).

The researchers identified several producer sub groups described below but the time constraints of the study did not allow a sampling stratification that ensured a predetermined number of representatives from each sub group were contacted. The first grouping differentiates producers who sell hundreds or thousands of stock annually from those who sell in very small numbers. The next grouping could be geographic with sub groups of producers on mainland Tasmania, King and Flinders Island. Within each of these groups there are sheep producers, cattle producers (some both) and pig producers. Within each of the species groups there are some producers who sell to on island processors and are satisfied with these arrangements and others who are not. Furthermore there are producers who sell to mainland processors who are satisfied with these arrangements, and others who are not.

The information and opinions expressed by respondents have been interpreted in the context of their membership of these sub groups thereby ensuring they are viewed in perspective to their overall industry impact.

Representatives from the Tasmanian Farmers and Graziers Association were also consulted.

2.2 Processors and representative body

The researchers endeavored to understand meat processing from the perspectives of large locally operating businesses, large processors of Tasmanian livestock operating outside Tasmania and from small micro Tasmanian based processors.

Extensive and fruitful interviews were conducted with representatives of all the major processors with facilities in Tasmania, including JBS Australia, Greenham and Tasmanian Quality Meats (TQM), and with representatives of businesses that purchase a significant amount of Tasmanian livestock for processing elsewhere, including Ararat Meats and the Australian Lamb Company.
The researchers visited the Devonport, Cressy and Stowport abattoirs and met Directors of Cradoc Hill abattoir.

To understand fully the potential market effect of the proposed abattoir on King Island, members of the King Island Beef Producers Group and a representative of the proponent of a new abattoir on King Island, the EAT Group, were consulted. In addition, members of other groups with keen interest in beef production and processing on King Island were interviewed, as too were representatives of Flinders Island producers.

The Australian Meat Processing Corporation was consulted as the representative organization for meat processors.

2.3 Livestock Agents

Although the majority of Tasmanian livestock is traded directly with processors, without using public auction, agents are often used in these transactions as a means of guaranteeing payment and because of their overall relationship with farming businesses. Public auction sale yards have minimal influence over livestock trading in Tasmania although the Quoiba facility meets local butcher demands with Powranna and Killafaddy largely supporting small producers. Roberts and Elders were targeted for consultation as operators of public sale yards and in their role as significant livestock agents.

2.4 Livestock transport operators

Land transport of livestock is an essential component of the Tasmanian red meat supply chain. Three major livestock transport operators (who are also representatives of the Livestock Transport Association of Tasmania) were therefore consulted.

Access to shipping space is integral to movement of livestock across Bass Strait so the two major shipping operators in Toll and SeaRoad were also consulted.

2.5 Others

Researchers held discussions with the Tasmanian Meat Industry Working Group and the Red Meat Forecast Committee as these bodies representative collectives taking a collegiate umbrella view of the red meat industry.

The consultants received submissions from Jennifer Robinson (Sprout – Appendix 5: Jennifer Robinson – Sprout and Christopher Howe (Provenir – Appendix 6: Christopher Howe – Provenir).

In addition to direct consultations the consultants drew on the extensive personal experience of the consulting team and the relevant records and data held by its members.
3. The Business of Meat Processing

In this chapter the nature of meat processing as a business activity and issues relating to the national, international and Tasmanian livestock and meat markets are discussed.

3.1 The influence of International Markets

The meat market is in the main a commodity market; the lowest cost producer succeeds. Australia is a small provider in the world supply of red meat, though Australia is a significant participant in the world traded red meat market. The large proportion of Australia’s supply of red meat that is traded makes the sales and prices received by Australian producers and processors sensitive to relatively small changes in global supply or demand. Hence, export sellers and thus producers face considerable volatility of prices received.

Whilst production and processing costs are influenced by Tasmanian (Australian) economic forces, meat produced in Tasmania has to be competitive with that from countries with lower input costs. Tasmanian meat producers and processors remain competitive by product differentiation, ensuring food safety and quality and adoption of technologies derived from investment in research, development and extension.

3.2 Determinants of processor profitability

3.2.1 Plant capacity utilisation

Utilisation of capacity, which is the difference between peak and trough of daily throughput of animals at a processing plant, is a key determinant of profitability of livestock processing. Low throughput raises the average fixed costs per unit of output. The constraint of livestock supply being markedly variable is a significant factor that limits the economically optimal utilisation of capacity and constrains the size of plants. Variable utilisation of capacity of processing plants increases the difficulty of being cost-competitive with the output of more fully utilized competing suppliers of meat product from elsewhere in the world, and including from mainland Australia.

This was the situation faced by Tasmanian milk processors a few decades ago which resulted in processing plant rationalisation. In the case of Fonterra this processor rationalised its production in one Tasmanian plant and closed the small regional locations.

The seasonality of Tasmanian on farm livestock production results in plants being over supplied during late spring and summer and under supplied during winter and early spring. This means the efficiency and thus profitability of the processing plants are also seasonal.

The milk industry responded to this by paying incentives to farmers to produce more ‘shoulder’ milk using price which, to an extent, has also been adopted by the red meat industry. Many red meat producers however feel that the price offered by processors is an insufficient incentive for them to reduce stocking rates and increase inputs to increase winter and early spring production.
A report (Macquarie Franklin 2014) demonstrated that there is limited opportunity to increase winter beef production in Tasmania taking account of economic, soil structure and other environmental considerations. Increased availability of irrigation water is enabling Tasmanian farmers to increase supply of beef and sheep during summer.

On King Island beef cattle is the dominant agricultural activity, with a focus on taking stock through to a finished live product. In recent years cattle from King Island represents about 20% of the Tasmanian cattle supplied to Tasmanian based processors.

Flinders Island has developed beef production systems producing cattle for feedlot or specialist background finishers mainly in Tasmania.

Tasmania has the Tasmania Feedlot Pty Ltd, owned and operated by AEON Co Ltd Japan, which for the past forty years has purchased Tasmanian-bred cattle to feed and deliver as branded product to Japanese consumers. Tasmania Feedlot Pty Ltd has significantly supported the Tasmanian beef industry and has a strong commitment to it. The Feedlot relies on local Tasmanian processing to retain the provenance of its branded product, and currently uses both the Smithton and Longford processing plants. Any significant reduction of the current supply of beef processing capacity in Tasmania would pose problems for the Tasmania Feedlot Pty Ltd, which, if not resolved, would have wider and probably adverse effects on the Tasmanian beef industry.

Processors need to maintain critical labour hence rather than closing a plant during times of suboptimal local supply the strategy is to import live animals from areas characterized by a different seasonal production pattern. This is the strategy adopted by the three major processors operating in Tasmania and highlights the importance of maintaining the flexibility of moving livestock in and out of Tasmania.

Similarly Tasmanian producers require the capability of exporting live animals to mainland plants during times of over supply for local processors in order to reduce the time between finishing livestock to meet market specifications and accessing kill space.

Currently there are about one million lambs annually produced for slaughter in Tasmania. With closures by JBS Australia of the smalls line at Longford in 2017 and of all slaughter of sheep and lambs at Devonport, it is estimated that between 600,000 and 700,000 sheep and lambs will now be exported to the mainland per annum. The percentage of lambs is unknown. They are processed at abattoirs including those owned by JBS, the Australian Lamb Company, Herds, Ararat Meats and others.

This movement of livestock between Tasmania and mainland states is summarized by a transport operator representative who stated “For three months of the year we are shipping stock from Victoria to Tasmanian meatworks to fill supply shortfall. For six months we are flat out delivering to Victorian meatworks to relieve the supply pressure of the season, and for the other three months not much happens”.

Pork production in Tasmania is declining driven by higher production costs (some grain is imported from mainland states) relative to national and international suppliers and the inability of the sector as a whole to realise a premium for the Tasmanian product.

One significant and several niche vertically integrated producers are marketing high value differentiated products but the volume has been insufficient to sustain the JBS pig processing facility at Devonport. Pork production in Tasmania is predicted to remain small but there will be demand for a small efficient processing facility. It should be noted that pork
production in Tasmania (and elsewhere) is not seasonal, and can therefore provide a relatively stable source of throughput for a processing facility.

3.2.2 By-product value

Processor scale dictates the economics and practicalities of value adding by-products including tripe, brains, blood, bones and intestines rather than sending them to meat meal production or burial. The demand for many of these products is in export rather than local markets, hence processors need at least Tier 1 Export Accreditation to participate in such markets.

Small meat-works are limited in their cost recovery/sales opportunities for offal and other by-products. In some stages of the beef cycle, sales of offal and by-product are the main source of profit. Another example is sale of bones. It is possible that a large meat-works with Tier 2 export accreditation could recover a significant amount of processing costs or additional profit from sale of bones to China.

There is insufficient rendering capacity in Tasmania and some render product currently goes to landfill (Appendix 7: Craig Palmer - Rendering).

3.2.3 Input costs

As previously stated meat processors, and other pre and post-farm gate activities, operate with local input costs and compete with products from areas with lower input costs. Processors and farmers have little control (other than buying power) over the price of inputs, but can to some extent control the quantity of inputs used and the value extracted from them.

Significant input costs for Tasmanian processors include packaging, energy, waste disposal, regulation and transport. The Commonwealth Government recognizes the transport disadvantage of Tasmania relative to other states because of its dependence on sea transport across Bass Strait by supporting the Tasmanian Freight Equalisation Scheme as a strategy to minimize this disadvantage.

Influencing other input costs is not considered a role of government in a free market economy but the following short discussion puts them in perspective relative to international competitors.

In October 2018 the Australian Meat Processing Corporation published an analysis of the regulatory and related costs in red meat processing.

For a range of economic reasons the cost to process beef in Australia is higher than for our three main competitors. These reasons include different standards of living and thus wages, different labour productivity, different mixes of labour and capital, different sizes of industries and varying exchange rates. Using a common currency the impact of these differences results in the average costs of processing meat in Australia being:

- 24 per cent higher than in the United States;
- Over twice the costs of Brazil; and
- 75 per cent higher than in Argentina
In economic terms, freedom of trade and floating exchange rates, and the law of one price, means that meat of the same quality sells for the same price (the price equals the marginal cost of production) in world markets, after adjusting for transport costs.

Costs of regulation vary between different countries. Australia’s regulatory burden is estimated to be:

- Over twice that of the United States and Argentina; and
- More than three times that of Brazil.

The discipline of having to sell a similar product on highly competitive international markets means processors in different economies use different combinations of labour and capital, scale and throughput. They combine their different-costing inputs in ways that enable them to compete and sell their similar products in the same markets at prices that are profitable.

There are benefits from further automation and technology and a balance between technology adoptions through the increased cost of machinery compared to the cost of labor. However increases in capital investment increase the unit cost of processing unless the number of units is increased. More capital requires greater throughput to be economically viable.

3.3 Influence of global livestock supply

The United States is a large producer, national consumer, exporter and importer of beef. As such, changes in the supply side of this market can have dramatic effects on the price of beef in the Australian market and thus profitability of the Australian (and Tasmanian) supply chain. Whilst there are well established cattle cycles that can be used to predict future international and local beef prices, the Australian and Tasmanian industry has little or no control over such influences.

3.4 Influence of national livestock supply

The pattern of historic monthly processor margins since 2000 demonstrates that in dry times and with high throughput the processor margin can be high. During the last quarter of 2006 when nearly all the eastern half of Australia was experiencing below average or very much below average rainfall deciles, processor margins spiked to above $250 per head.

Similarly, the prolonged drought in Queensland from mid-2013 to mid-2015 saw monthly processor margins average nearly $245 per head. Conversely, during wetter seasons such as in 2016 and 2010/2011, the margin was negative.

Prolonged dry conditions often see the national herd begin liquidation, with breeding stock sent to slaughter. The subsequent decline in cattle prices as the herd is destocked can benefit processor margins by increasing throughput, particularly if they can offload product offshore at good prices (as was the case in the 2013/15 turnoff).

On an annual basis, the processor margin for the 2018 season finished the year at an average of $96 per head of animal processed. Robust margins are consistent with the destocking that occurred during 2018. During herd liquidation, it is common to see processor
Margins benefit as destocking allows processors to obtain cheaper input cattle, and in greater numbers.

Australian Bureau of Statistics (ABS) data for the 2018 season demonstrated that the trend in the female slaughter ratio from May remained above the levels of the liquidation of the 2014/15 seasons. The annual average FSR of 50.6% for 2018 was consistent with herd liquidation.

The ABS monthly cattle slaughter reports show that over 4 million head of female cattle were slaughtered in 2018. There is a reasonably strong positive correlation between annual female slaughter levels and the annual average processor margin.

![Female Slaughter vs Processor margin](image)

**Figure 1: Annual female slaughter and processor margin – Source: MLA, ABS, USDA, Steiner, Mecardo, Trade**

As female slaughter levels increase beyond 4 million head per annum, processor margins tend to expand above $100 profit per head. In the same way, as the female slaughter levels decline under 3.5 million head per year the annual average processor margins retract into negative territory.

The Tasmanian beef herd represents only about 2.5% of the national beef herd hence it has little influence over the national supply which is largely influenced by adverse environmental factors such as drought and flood.

Similarly, Tasmania represents only a small proportion of the national sheep flock. Hence national factors have a significant impact on the Tasmanian sheep supply chain (Appendix 8: Additional Mecardo Graphs). In contrast to cattle the profitability of a sheep enterprise is influenced by wool price which is influenced by economic cycles outside the meat industry.

The Australian (and Tasmanian) lamb industry has responded to market signals by increasing carcase weight which has enabled processing costs per carcase weight to be reduced.
3.5 Processor margin and plant closure

In January 2019, the Australian Meat Processor Corporation (AMPC) published a report on their processor margin model to ‘provide AMPC and industry stakeholders with a tool to objectively assess the drivers of processor economic performance’, covering eleven years from January 2008 to December 2018.

The AMPC caution that its processor model is not a whole of industry model, but is representative of an industry participant. The AMPC considers its model to be a good indicator of broad industry performance.

According to the AMPC processor model, positive processor margins were noted during the millennium drought which ended mid-2010; followed by negative margins during the 2010–2012 herd rebuilding phase; positive margins were again seen during the 2013-2015 drought; and mostly negative margins since 2016 (Figure 2).


Figure 2: Processor margin to plant closure – Source: AMPC

An obvious relationship exists between periods of low margin for beef processing and known abattoir closures with 13 closing since 2008. There were three additional sheep/lamb abattoir closures between 2008 and 2018. The AMPC report stated:

“While causing potential short-term impacts to the supply chain, it is not clear that these closures had any impact on the long-term capacity of red meat processing,

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with larger processors taking up the displaced livestock, and thereby likely increasing operational efficiencies and potentially offsetting increased transport costs.

However, the broader economic and social impacts (particularly on regional communities) should not be discounted. The 13 closures occurred primarily in small regions with a median population of 13,000 people. The closures resulted in a total loss of 1806 jobs in the sector. Nearly 70% of the closures were plants that employed less than 200 staff (a plant size that represents 51% of current AMPC members) and the remaining 30% of closures were plants with between 200–600 employees (a plant size that represents 31% of AMPC members). This highlights the vulnerability of smaller and medium sized processors during periods of prolonged or extreme low margin.\(^2\)

Current Tasmanian processing plants are in the less than 500 employee category. During the survey period (since 2008) Tasmania has had 3 full or partial closures, JBS King Island, JBS Longford smalls (sheep, lamb and calves) and JBS Devonport.

This data suggests current Tasmanian beef processing facilities will remain vulnerable because of their relative small economies of scale.

### 3.6 The demand for service kill in Tasmania

Service kill works are supported by retail butchers who buy or grow livestock and have them slaughtered, as well as for the purveyors of niche products where the brand provenance of food is important and producers seeking to supply meat direct to consumers through farmers markets.

Service kill appears to have retained greater prominence in Tasmania than on the mainland. In general mainland retail butchers buy carcase components or boxed product rather than buying livestock and having them slaughtered with whole bodies delivered to the butcher shop. The reasons for this change include workplace health and safety of carrying quarter carcasses and the difficulty of finding skilled boners to work in shops.

The proportion of total meat production sold under explicit provenance branding in Tasmania is undefined but is small relative to the total Tasmanian livestock production. Nevertheless, the provenance possibility underlies claims that there is a need for specialist local slaughter and processing services to maintain this producer-retailer-provenance model, with the suppliers of live animals coming from a niche or small business sector of the industry. For this, and other reasons, the service kill segment of the meat processing sector of Tasmania is seen as significant by some elements of the meat industry in Tasmania.

Currently Tasmania has ‘micro-abattoirs’, including those listed in Appendix 9: Licenced Meat premises in Tasmania, that provide a predominantly ‘service kill’ for cattle, sheep and pigs. This sector can be separated broadly into two sections. The Cradoc and Stowport meat-works are the largest, and important to meeting the needs for service kill largely to supply butchers shops. These abattoirs are of sufficient scale to be viable service kill

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operations, subject to capable management and adequate finance. For figures from the Department of State Growth see Appendix 10: Abattoir figures.

Extension support consistent with the legitimate role of government could be provided, in light of the need for these businesses to maintain and increase productivity and meet compliance requirements. Specific focus could be on the environmental, OH&S and waste management challenges and legislated requirements specific to meat processing. The other smaller processors have reported that their throughput has increased since the closure of Devonport City Abattoir (DCA). It would appear that the needs of niche services are catered for and this market is adjusting to the withdrawal of DCA from the provision of service kill.

Tasmanian pig producers were affected by the closure of the DCA because the majority of pork processed in the state had been processed in this plant. Currently DCA maintains this service under the management of Tasmanian Quality Meats (TQM). There is a one year agreement with the owners (JBS), with the option of a one year extension. It is unlikely that this arrangement will continue indefinitely, so options and planning requirements for the future need to be canvassed.

Scottsdale Pork has grown to be the largest producer in the State, now accounting for about 60% of total supply. This percentage will increase, possibly to 80%, if imminent rationalisation occurs. The pig industry in Tasmania continues to rationalise, with at least one of the existing larger producers indicating that they may cease pork production. This would leave three processors supplying the majority of production. The Tasmanian pork industry, which accounts for less than 1% of Australian pig slaughter, is set to contract even further.

Scottsdale Pork is considering building an abattoir specifically for processing pigs to complement its modern boning room. An efficient outcome would be if pigs from other producers were processed in this plant.

Note that it is very unusual for export accredited abattoirs processing sheep, lamb or beef to also include pigs, so a dedicated works for processing pigs is sound. It is likely that, when the service at DCA is eventually withdrawn, other existing pig abattoirs will not have the capacity to process the entire current or likely future supply.

Producers of small numbers of pigs (1 to 5 pigs per week) are catered for by small abattoirs. With the continued decline in Tasmanian pig numbers, the current small abattoirs meet this demand and will likely be adequate for future demand. The future challenge to the on-going viability for small abattoirs is likely to be in the area of regulatory compliance, including waste treatment, offal removal, power and water supply and OH&S.

Until its closure, the DCA was the service kill facility of choice of a significant proportion of this market segment, arguably to the detriment of competing service kill facilities. Government at various levels could assist this sector by reducing unnecessary impediments and addressing any challenges that emerge as a result of the additional demands on these facilities. A pro-active approach is in the interests of the long term continuation of these small abattoirs that provide a valuable service to small producers and provenance suppliers/customers.
4. Need and Opportunity for Increased Meat Processing Capacity in Tasmania

4.1 Introduction
As previously discussed, viability of meat processing facilities is largely influenced by throughput and variable input costs. The opportunity for increasing processing capacity in Tasmania depends on increasing the supply of livestock for slaughter increasing whether produced locally or imported from other regions.

4.2 Provenance of food
There is debate concerning whether the lifetime provenance of an animal processed in another geographic location is lost from a marketing perspective by it not being processed in its lifetime geographic area. Whilst this may be an important marketing consideration it is unlikely to influence the requirement for processing capacity as that already available in the state is sub-optimally utilised on an annual basis.

The natural amenity of Tasmania lends itself to attracting consumers who prefer to know where their meat has come from, and how it was grown and prepared. Successful use of regional provenance as a brand and marketing concept by individual firms in the meat industry in Tasmania is a realistic economic opportunity, as it is also on the mainland and for international competitors. For some individual livestock and meat producers in Tasmania, or small groupings of operators, more scope may exist to utilise the provenance characteristic in brand marketing of their product. Successfully branded meat products currently include, but are not limited to: Cape Grim Beef (Greenham), Thousand Guineas Shorthorn Beef (JBS), Flinders Select (Flinders Island).

Provenance of produce sits well with an economic growth strategy built around tourism.

Capturing the economic benefits of marketing product using brand-provenance is a challenging, complicated and subtle process.

Provenance as a marketing concept works best the smaller the region and the fewer the number of suppliers involved. Supply of the product attributes that are implied to be associated with product provenance have to be under tight quality control. The smaller the region the provenance and the associated product characteristics relates to, the greater the chance of success.

The opinion of marketers is divided in relation to the place of slaughter in the definition of provenance. One opinion is to claim ‘Tasmanian’ provenance stock should be slaughtered in Tasmania’. The opposing opinion is that the consumer is not interested in the place of slaughter but is concerned that the animal lived well and died well. Marketers can make either story believable.

4.2.1 Suggested premiums
Often overlooked or understated is that the extent of any premium is limited by the supply of similarly appealing product from other sources domestically and internationally, and also
that supplying product with special attributes for which consumers are willing to pay involves added costs as well.

Further, the temptation for lower cost, lower quality product to masquerade as being the legitimate higher-priced provenance product is ever-present. The case for individual firms capturing benefits from provenance-based marketing is sound and the potential benefits for such firms are real, provided the whole exercise from decisions about what to produce and how, to final sale, is done very well.

The logical slide though to grand claims that the same benefits are available generally for vague and less precisely defined attributes are simplistic and likely mistaken.

Grand claims are also made about the premiums which the high value primal cuts will attract. In a steady state breeding herd, when the number of cast for age cows, cull heifers and secondary steers have been deducted from the annual turnoff the high value cuts account for around twelve percent of the carcase from around forty percent of the animals.

4.3 Finishing Systems
4.3.1 Beef finishing systems

Beef finishing systems in Tasmania include cattle breeders who are prepared to take stock through to slaughter weight, backgrounders who grow store cattle to heavier weights, and specialist fatteners and feedlots. There was no suggestion that the current finishing arrangements constrain growth of the meat industry.

4.3.2 Lamb finishing systems

The majority of lambs in Australia are finished on dryland pasture or irrigation. While there are some feedlots for lamb finishing most are opportunistic as profit from the systems is highly dependent on the cost of grain at the feedlot. The system of lamb finishing on irrigated pasture in Tasmania is in its infancy and there is no reliable data available.

4.4 Increased Tasmanian production

Accepting that the Tasmania Feedlot has no plans to significantly increase production and that the only lamb finishing feedlot will remain at current capacity, increased sheep and cattle production would come from pasture based systems.

Animal production from a pasture based system is largely determined by the quantity and quality of the feedbase utilised by grazing animals. The question therefore becomes one of whether Tasmanian pastures have the potential to be improved in terms of total production and quality and whether there is potential to utilise any such improvement. There is always an economics dimension which in this case is the opportunity cost of using on farm resources (water, land, labour) for livestock production rather than for another enterprise such as cropping.

The Sheep and Lamb Productivity Report (Bott 2017) claims that with [already] increased prices there is potential to increase livestock numbers. Further, a submission from Richard Rawnsley (TIA) on the pasture productivity potential is included as Appendix 11: Pasture
Productivity (Richard Rawnsley). The analyses appear to have been done on a trading/finishing basis. While high cost pastures such as irrigated pasture are better used for growing and finishing stock than using them for breeding stock, competing higher return uses such as cropping limit expansion of beef production in the manner described.

The submission further contends that land will continue to be used for livestock production, but with further irrigation development the likelihood is that more profitable land uses will emerge.

Using high value pastures for growing stock is more sensible than using it for breeding stock, but there is no consideration of the competing high value uses such as lamb fattening/cropping. In addition the submission contends that land will continue to be used for livestock production but with further irrigation development the likelihood is that more profitable land uses will emerge.

When considering the potential for high cost, intensive, increased productivity production systems, such as irrigation, it is necessary to work backwards from the market in which the product that is produced will be sold. Output from the high input, high cost, intensive, irrigated production systems has to be sufficiently productive to be able to sell in competition with output from low input, low cost extensive systems.

UTAS is about to commence a project to investigate the productivity of pastures on King Island and in the Midlands. In addition to assessing current productivity the project will assess the potential production when climate change predictions and farmer attitude to adoption of new technologies are considered. The project will use GrassGro modelling.

It is possible that livestock production on farm could increase throughout Tasmania by improving pasture botanical composition and management of pastures. Irrigation could add further to the capacity to run more livestock. However the possibility to increase per area livestock production is not new and there is no hard data to suggest a sudden sustainable increase is imminent. The increase in production could possibly be accelerated by an extensive development and extension program.

Growth potential from irrigation is often over emphasised in relation to meat. Meat produced from irrigated pastures has to compete with the same product grown on water that falls from the sky. As a consequence irrigation has to be used for higher gross margin activities. The economic benefit to state and regional economy is overplayed within free trade and interdependent economy. The best economic activities will happen where they are best suited. Within each state beef and sheep compete with dairy and cropping. In many instances these activities can offer greater economic benefit than meat production. Individual farm businesses will need to develop partial budgets to assess the potential profitability of competing land allocation.

4.5 Increasing national production

The national livestock production sector is currently declining in response to catastrophic events including floods and drought. Climate change events are likely to become more frequent and thus potentially counteract some of the potential to increase livestock production through technology advances. It is therefore unlikely that the national supply of sheep and cattle for processing is likely to markedly increase in the short to medium term thereby negating any need for Tasmanian processing facilities to meet increased national demand.
JBS alone processes 11,200 lambs per day (5,600 at both Brooklyn and Bordertown) which is an annual kill of 2.8 million (11,200 X 250 days) lambs annually. JBS has the capacity to run a double shift and process 8,000 lambs per day at both Bordertown and Brooklyn, giving a capacity of 4.0 million annually.

Given the already existing excess processing capacity and its ability to expand with corresponding increases in efficiency it is unlikely Tasmanian based processors need to expand to meet increased national processing demand.

It is therefore expected that any new entrants to the meat processing sector in Tasmania will encounter vigorous competition from those already established in Tasmania and nationally.

4.6 Processor expansion in Tasmania

4.6.1 King Island EAT Group

The EAT Group is working to establish a beef processing facility on King Island which, if successful, will have negative impacts on currently established beef processors in Tasmania. The capital investment required for such a plant is in the order of $50m to process a small finite cattle resource. Given the above discussion including competition from existing processors it seems establishing and profitably operating such a facility will be challenging.

Further details on the EAT proposal can be found in Appendix 12: EAT Group report.

4.6.2 Micro abattoirs

As previously discussed there is an established demand for regionally based micro abattoirs that service small businesses and individuals requiring small numbers of livestock to be processed. Some small scale livestock producers claim the current location of these facilities is inconvenient requiring them to transport livestock unacceptable distances so there may be an opportunity for some increase in regionally specific micro abattoirs.

4.6.3 Small scale abattoirs

Many independent Tasmanian butchers desire to purchase and or produce their own livestock for sale through their shops. The larger processors are reluctant to undertake service kills for these businesses because of their relative small scale and the butchers are reluctant to use them because of lack of trust in them to return the correct animals to them post processing.

The number of butcher shops is declining nationally with an increasing proportion of consumers purchasing meat from supermarkets. It is therefore unlikely that demand from this sector will significantly increase to change the dynamics of the state processing requirements.

The Tasmanian Government supported the Stowport Abattoir to substantially expand its throughput in order to meet the industry’s service-kill requirements that arose as a result of JBS’s decision to close the Devonport City Abattoir. Stowport has significantly greater
processing capacity than other small plants and is unlikely to be replaced by mobile abattoirs.

4.6.4 Other Tasmanian proposals

At the time of writing no firm funded and shovel ready proposals were evident for building new processing facilities in Tasmania.

A concept paper was submitted by Messrs Gozzi and Dickinson and is included as Appendix 13: Gozzi and Dickinson paper The paper calls for government financial support to establish a lamb abattoir. The requested development would be in stages, commencing with a processing capacity of 150,000 lambs per year, and expanding to 500,000 lambs killed annually. It is intended that the plant would commence with a domestic license and move to an export license in the future. The case put for this public-private proposal includes creating jobs in Tasmania, avoiding freight and associated ‘wastage’ and thereby increasing returns for producers, shielding Tasmania from an exotic disease incursion on the mainland, and building on ‘the Tasmania brand’.

Further, TQM intends to expand the killing, boning and chilling capacity at the Cressy works to meet the demand for kill/bone/chill space for heavier lambs, and to seek accreditation as a Tier 2 full export abattoir. As TQM sees the situation:

- For many years until about four years ago TQM processed 20,000 lambs each month for a five month period during late spring and into the summer.
  - That number has dropped back to 5000/month
  - Producers are holding lambs longer and finishing them on irrigation.
- There is a long waiting time for producers who want to get heavy lambs processed on Tasmania
- To process the increased supply of heavy lambs TQM will need to:
  - Sell into export markets which will require the ability to:
    - Kill, bone, chill full container loads.
- Doing this will require significant investment at Cressy.

Some participants at the focus meeting at Ross called for government intervention to compulsorily acquire the Devonport City Abattoir. These calls were not supported by the entire group and were actively opposed by some attendees. It should be noted that, even if DCA could be made available for ongoing and broader use, it would require significant upgrading to bring it into line with current best practice.

4.6.5 The introduction of mobile abattoirs

A mobile abattoir which will comply with all work health and safety, animal practice, food safety and waste disposal regulations is about to commence operation in New South Wales. This method of kill and process may have relevance for small scale Tasmanian producers, subject to legislation, and may in future provide an alternative to micro-abattoirs.
4.6.6 Role of government in meat processing in Tasmania

Suffice to note here that the principle of competitive neutrality aims to promote efficient competition between businesses and to avoid distortions arising out of government intervention. This means that care must be taken to ensure that the provision of financial assistance to a business does not unduly disadvantage other Tasmanian businesses.

During the course of this inquiry into meat processing capacity in Tasmania, suggestions have been made that the State government ought to own, operate or to at least significantly subsidise the construction of meat processing facilities. Such calls are at odds with the central tenets of the mixed private enterprise, capitalist economy that has evolved in Australia, and as such are indefensible.
5. Discussion

The nature of meat processing as an economic activity, particularly the role of seasonality of supply in profitability of meat processing, has been set out in chapter 3. The situation of the meat processing sector in Tasmania was described in chapter 4. In this light, the feasibility of increased meat processing capacity being established in Tasmania, and some of the issues raised by interested parties, are considered below.

Livestock processed in Tasmania on the mainland and internationally end up competing in the same markets. The prices in markets for meat products reflect the total cost of production, on farm and all subsequent costs off farm through the value chain to the consumer. Scale and variability of throughput through the year are significant determinants of the costs of processing meat and the ability of buyers of livestock to offer competitive prices to producers.

Integration of the Tasmanian meat processing industry with that of the mainland is integral to meat processors managing seasonality of supply and providing competition in livestock and meat markets, and to the profitability of meat processors and livestock producers in Tasmania. Close attention to the efficiency of livestock and meat transport systems along the value chain between the mainland and Tasmania, and international markets, ought to be a clear priority for government.

There are no economic barriers to additional meat processing capacity setting up in Tasmania if the situation economically justifies doing so. Similarly there are no impediments to reducing processing capacity if the economic forces justify it. Government has a role in reducing unnecessary barriers to economic activity, as it too has a role in providing information, research, development and extension and the regulation necessary to make markets work well, while not introducing or perpetuating regulations that stand in the way of the efficient operation of livestock and meat markets.

5.1 The clean and green mantra

For over two decades Australia and individual States, and many other countries, have been using claims of products being ‘clean and green’ as an export marketing ploy. The reason for promoting this image is:

(i) the beliefs that consumers are increasingly concerned about the health status of foods and also care increasingly about the natural environment; and

(ii) that ‘green’ and ‘clean’ are not meaningfully defined nor readily verified, but certainly a more attractive image for foodstuffs than ‘brown and dirty’. The basis for agricultural production being ‘clean and green’ rests on a commitment to strict quarantine practices and low levels of chemical residues in soils and products.
Chang (2006) explains:

The general rationale behind using the ‘clean and green’ image as a marketing strategy is that if a state or country has a natural environment that appears visually ‘clean and green’, then what it produces also may be perceived to be ‘clean and green’, and consumers, those overseas in particular, will want to buy, and pay a premium for, the goods it produces. More importantly, it is banking on the fact that such claims cannot and will not be challenged because descriptors such as ‘clean’, ‘green’ and ‘natural’ are not well defined (Consumers Union 2003) and it is difficult for consumers to verify the existence, or otherwise, of those credence attributes.

Chang reports a NZ study found that NZ’s ‘clean and green’ image did exist and had export value but that increasingly more aware consumers would need that image to be backed up by reality and product quality. Chang also reports other research (Twyford-Jones et al 2003) that has shown that consumers are generally more concerned about price and personal benefits they obtain from their purchases and are less concerned about protecting the environment of a foreign country like Australia or NZ. It is argued that consumers are more likely to pay extra for food products with genuine food safety and health benefits, whose credence is established by verified on-farm quality assurance and environmental management system, than for environmental improvements. That is, to extract premiums for being ‘clean and green’, investment in data collection and verification to establish the credence of such claims is necessary. Success in export markets will also be increasingly competitive as competitors join the race to demonstrate who is the cleaner and greener supplier of food products.

Examples of branding food as ‘Safe and Healthy’ such as infant formula into the China market are starting to emerge. However, the suppliers of infant formula are well established companies which had an established presence in the market. Generally there is little evidence to link ‘Safe and Healthy’ to a premium and in contrast in most markets the guarantee of food safety has become essential.

Successful provenance-branded meat products have been established. Establishing and maintaining profitable brands or branded products is possible, albeit requiring high-level business management capacities. Again, there are no barriers to producers of livestock and meat establishing provenance-branded product. In future, if there is evidence of a genuine market premium for product with characteristics such as being GMO-free or for some particular Tasmanian attributes, then any corresponding increased net additional value placed on these products will attract entrepreneurial minded investors.

However, sustaining these provenance-branded meat products in the longer term is challenging. For precedent, experience with ‘Aussie beef’ brand the meat industry took to Japan in the 1980s and 1990s is pertinent. So too are the efforts of The Meat Research Corporation and Meat and Livestock Australia, which over a twenty five year period have encouraged and supported producer led marketing alliances. One hundred producer groups showed interest, members of eighty groups were provided with free all expenses paid conferences, twenty of those were invited to ‘pitch’ for support, ten business plans for alliances were funded and none exist today.

5.2 Disease incursion

During the consultation phase of this project the proposition was raised that Tasmanian livestock processing needed to be independent from mainland Australia in case of a disease
outbreak such as Foot and Mouth Disease (FMD). Enquiries by the researchers have revealed that if in the event of an FMD outbreak in Australia, the FMD status is lost over the entire country and the Commonwealth has the job of negotiating to restore this. That will require scientific and technical proof of freedom and would take many months at least.

The national cessation of livestock movements would cause a buildup of stock on farms and result in healthy stock being slaughtered and buried.

The case to make Tasmania or Western Australia recognised as free zones or compartments once disease distribution is known is recognised (details found in Ausvetplan). This would be secondary to resourcing the actual response and would be a considerable challenge to implement.

Initially there would be a livestock standstill throughout all Australia and that might remain in place until tracing was completed and it was clear where disease was confirmed or whether it was likely to have spread.

Tasmania does have routine movement of stock from the mainland, so it would be included in all initial measures. State based processing would not solve the issue.

5.3 Building a new lamb abattoir

The question of the feasibility of investing to increase processing capacity in Tasmania hinges directly on the livestock that would be processed by new capital invested in extra capacity in Tasmania. A new plant would require sufficient size and consistency of throughput to enable stock to be processed at a lower cost than the cost of transporting and processing the same additional livestock on the mainland. This would probably happen at an existing larger scale works with sunk capital and surplus capacity. The existence of efficiently accessible meat processing works in Victoria with relatively low marginal costs of processing additional throughput because of sunk capital and surplus capacity, and readily able to handle additional livestock in Tasmania, is a major factor limiting the prospects of new capital investment in meat processing in Tasmania.

An indicative budget of capital requirement and operating costs that would be involved in building a new abattoir at a scale required to be profitable is included in Appendix 14: Indicative budget of capital requirement and operating costs of building a new abattoir

Further insights into historical studies in the meat industry can be found in Appendix 15: Lessons from the 1990s report ‘The Changing Victorian Meat processing Industry’.
6. Conclusions

On balance, the premise is rejected that there is insufficient capacity and competition in the Tasmanian meat processing industry now or in the foreseeable future. The absence of barriers to entry, threat of competition and the contestability of the Tasmanian market means there are no in principle constraints to investment in the future being feasible if the economic circumstances are sufficiently attractive. The competitive capacity and threat of competition from the mainland is sufficient to continue to achieve efficient outcomes for producers and consumers in Tasmania.

The Tasmanian meat sector of the economy is no more at a location, distance or small regional market disadvantage than any other similar sized markets scattered around Australia with similar distance from major processing plants.

The simple arithmetic of transport costs dictates this. The only difference and potential wild card is a change in attitudes to shipping live animals by boat. This would make additional investment in Tasmania necessary and, because the changed economics would then be attractive, the required capacity would be established. And, if such a change adversely impacted the relative economics of meat verses other uses of the same resources, such as dairy and cropping or wool sheep instead of lamb, these adjustments would occur at farm level with no adverse effect on the Tasmanian GDP.

In addition the following points are important:

1. International, National and Tasmanian Trends

1.1. Domestic and international markets for meat are highly competitive markets that are strongly influenced by international factors beyond the control of domestic producers, processors and consumers.

1.2. The profitability of meat processing is heavily influenced by scale and throughput, and technologies that reduce inputs such as labour.

1.3. At the commodity level, Australia has the meat processing capacity it needs, and there is the flexibility and scope to increase capacity if, when and where it is required.

1.4. Nationally and locally within Tasmania the meat processing sector has been undergoing rationalisation over the last fifty years in response to economic pressures and technological developments.

1.5. The geographic location of red meat processing facilities is determined by the businesses that invest in them and is dictated by the location of livestock supply and efficient transport links.

1.6. The structure, conduct and performance of livestock and meat markets is that of free markets, subject to meeting regulatory standards.
2. Tasmanian Themes

2.1. It is assumed that livestock shipping across Bass Strait will continue as will the Tasmania Freight Equalisation Scheme (TFES). The TFES is of major benefit to the red meat industry and more broadly Tasmania’s economy.

2.2. Tasmania is an integral and closely integrated part of the international and Australian red meat industry.

2.3. The scale economies achievable by meat processing facilities in the state is limited by Tasmanian livestock numbers and the highly seasonal supply of livestock from Tasmania’s pasture-based livestock production systems. Supplying livestock consistently through the year, although more profitable for processors, is challenging and costly for producers.

2.4. There is scope for increasing pasture production and livestock numbers by implementing further the known technologies of growing and managing improved pastures. The potential is undisputed but the rate of improvement will probably be at about the same rates of productivity increases in the beef and sheep sectors that have been achieved in recent decades.

2.5. Micro and small abattoirs meet an important local demand for niche red meat processing and service kill, particularly the needs of specialty butchers. This demand is small relative to the scale of the local and national industries and has minimal implications for livestock moving to and from Tasmania.

2.6. Government assistance to industry to provide stability in periods of adjustment is valid. Calls for government owning or operating meat processing facilities in the State are not defensible.

3. Provenance of Food in Tasmania

3.1. Provenance branding has practical potential for some individual firms. Meaningful brands are product specific, associated with specifically defined characteristics, owned and quality controlled by suppliers who are invested in the brand, with verifiable credence values.

3.2. Provenance branding is exploited by current Tasmanian meat processors, using product differentiation characteristics such as being grass-fed product, GMO-free, or product free from antibiotic and hormone growth promotant.

4. Pig Processing in Tasmania

4.1. Tasmanian pig production is declining.

4.2. Processing capacity in the future could be provided by established small and micro abattoirs, or by one or more new specialist facilities aligned to a specific production and marketing system.
5. Lamb and Sheep Processing in Tasmania

5.1. While there is sufficient processing capacity in a national context, a large volume of sheep and lambs leave Tasmania to be processed off-island. The return on capital required to construct a new green field sheep processing plant to annually process in the order of 700,000 units would need close examination from an economic perspective.

5.2. Expanding the capacity of an existing facility may be viable because of a significantly reduced capital requirement and associated economies of scale.

6. Beef Processing in Tasmania

6.1. The current capacity to process beef in Tasmania is sufficient to meet current and forecast demand and there is no demonstrated need for increased capacity.

6.2. Provenance branding has been successful in the Tasmanian beef sector and several companies, including The Tasmania Feedlot Pty Ltd, rely heavily on local Tasmanian processing.

6.3. While not currently considered to be at threat, any significant reduction of the current supply of beef processing capacity in Tasmania would pose problems for these companies, which, if not resolved, would have wider and probably adverse effects on the Tasmanian beef industry.
7. Acknowledgments

The authors thank and acknowledge the support of staff in the Department of Primary Industries, Parks, Water and Environment and the Department of State Growth, the producers, and other industry stakeholders.
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- Tasmanian Pastures and Livestock Productivity Update (2018)
- Red Meat Industry update and Recent government support for processors (2019)
- Tasmanian Meat Processing strategy (2016)
- Links for further information
- The Tasmanian Red Meat Industry Strategic Plan. Working Together for Tasmania
- Tasmanian Agri-Food Scorecard Snapshot 2016-17
9. Appendices

Appendix 1: Full list of contacts & Focus group invitees

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<thead>
<tr>
<th>Name</th>
<th>Industry Role</th>
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<td><strong>Producers</strong></td>
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<tr>
<td>Frank Archer</td>
<td>Producer</td>
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<td>Scott &amp; Anna Anderson</td>
<td>Producer (FI Producers Group)</td>
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<td>Mark Webb</td>
<td>Producer</td>
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<tr>
<td>Chris Gunn</td>
<td>Producer</td>
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<td>Georgie Burbury</td>
<td>Producer (TMIWG &amp; SALRC)</td>
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<td>Brett Hall</td>
<td>Producer (TMIWG)</td>
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<td>Roger Clemons</td>
<td>Producer</td>
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<tr>
<td>John Tucker</td>
<td>Producer</td>
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<tr>
<td>Richard Sutton</td>
<td>Producer (Chairman KI Beef Producers)</td>
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<td>Darren Grace</td>
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<td>Stephen Creese</td>
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<td>Greg Bradfield</td>
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<td>Ian Sauer</td>
<td>Producer (SALRC)</td>
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<td>Iain Bruce</td>
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<td>Jim Allwright</td>
<td>Producer (SALRC)</td>
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<tr>
<td>Jenny O’Sullivan</td>
<td>Producer (SALRC SE Vic &amp; Tas Chair)</td>
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<td><strong>Representative Bodies / Commerce / Union</strong></td>
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<td>Jim Wilson</td>
<td>Deputy Chair TMIWG</td>
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<td>David Byard</td>
<td>Australian Beef Association</td>
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<td>Andrew Foden</td>
<td>AMIEU</td>
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<tr>
<td>Michael Bailey</td>
<td>Tasmanian Chamber of Commerce and Industry</td>
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<tr>
<td>Peter Skilern</td>
<td>CEO, TFGA</td>
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<td>Wayne Johnstone</td>
<td>Member Chairman, TFGA</td>
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<td>Jennifer Robinson</td>
<td>Sprout</td>
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<td>Warren Johnstone</td>
<td>(ALPA)</td>
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<td>Oliver Stankovski</td>
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<td><strong>Transport</strong></td>
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<td>Nick Hingston</td>
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<tr>
<td>Craig Palmer</td>
<td>Western Tiers Proteins</td>
</tr>
<tr>
<td>Jason Strong</td>
<td>Now MLA MD</td>
</tr>
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Regional Focus Group Meeting:

The following producers were contacted via phone or email and invited to attend one of three Focus Group meetings:

- Scott Bowden
- Anthony Archer
- Tim & Andrew McShane
- Peter Downie
- John Bignell
- Roger Bignell
- Ian Abraham
- Brian Baxter
- Peter Beattie
- Graham Hall
- Tim Gunn
- Michael Propsting
- Rodney Moore
- Trevor Hall
- Ron Berwick
- Frank Wagner
- Michael Chugg
- Brian Stewart
- Scott Colvin
- Will Bennett
- Warwick O’Connor
- John Cameron
- Roderic O’Connor
- Julian Von Bibra
- Ferdy Foster
- Robbie O’Toole
- Robbie O’Connor
- Simon Foster
- Paul Bowman
- Melissa & Will Fergusson
- Richard Webster
- George Mills
Appendix 2: Stakeholder Interview Structure and Questions

The following information and questions were utilised for each interview/phone conversation.

**Introduction:**

Following the closure of the Davenport works the Tasmanian Government formed the TMIWG and subsequently developed and issued a tender for a feasibility study. Meridian Agriculture (including Mercado, KC Natural and Professor Bill Malcom) was the successful tenderer.

The objective of the Feasibility Study is to determine the feasibility of establishing further commercially viable on-island meat processing capacity in Tasmania that meets the needs of producers and the market (domestic and export) in the long term.

*feasibility study, n survey or analysis of the need, value and practicability of a proposed enterprise (Macquarie)*

**The questions:**

1. Are you speaking as a representative of a corporation or an organisation or as an individual or a combination?
2. What is your involvement in the industry?
3. What is you ‘off the cuff ’ response to the question:
   a. Is there sufficient on-island meat processing capacity in Tasmania
   b. If there is insufficient is the deficiency likely to be addressed by expanding existing facilities of establishing new facilities
4. Have you experienced difficulties in getting livestock processed?
5. Is Tas kill important in the provenance story?
   Is it acceptable to continue to have free movement of livestock to and from Tasmania as the plant capacity and livestock market supply need dictates
6. If you had a message for the Government on this issue what would it be?

**Questions specific to producers (With a form to fill in at focus group meeting)**

1. Is your enterprise predominately beef, sheep (wool or meat) dairy, or some combination of above (getting % breakup would be useful)
2. Are you running more or less stock than 5 years ago? If so, what has driven this change?
3. Do you have more/less hectares of crop than 5 years ago?
4. Do you intend to run more or less stock in the next 5 years?
5. Do you think Tasmania will have more or less Beef cattle, sheep/lambs in 5 years?
6. Do you think Tasmania will have more/less crop hectares in 5 years?
Questions specific to processors:

1. A general question about the state of the industry, nationally and internationally and Tasmania’s part in it.
2. What is your current kill/processing capacity by species?
3. What would have to happen to significantly increase/reduce that capacity

Focus Group Meetings:

1. Introduction (as above)
2. Meeting ground rules
3. Who is in the room (each person identify who, from where and a little background.
4. Human Scattergram
   a. Outline the divergent positions
      i. There is sufficient processing capacity
      ii. We need another facility
   b. Get people to move to those positions
      While there ask why they have chosen that position
5. General Discussion
6. Where to from here.
Appendix 3: Aggregated producer survey results

Meat processing In Tasmania
Producer Questionnaire – Responses Combined

7. What is your predominant enterprise?

<table>
<thead>
<tr>
<th>Resp.</th>
<th>Beef</th>
<th>Sheep (wool or meat)</th>
<th>Dairy</th>
<th>Other</th>
<th>Other Descript</th>
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<tbody>
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<td>✓</td>
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<td>✓</td>
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</table>

8. Are you running more or less stock than 5 years ago?

<table>
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<tr>
<th>Resp.</th>
<th>More</th>
<th>Less</th>
<th>No Change</th>
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<tbody>
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<td>, currently increasing numbers</td>
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<td>15</td>
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<td>16</td>
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</table>
9. If so, what has driven this change?

- **Respondent 1:** No Answer given
- **Respondent 2:** Increased profitability due to improved pasture management and returns that reflect the niche product that Tas producers now supply. This increase has been driven by Greenham who supply grass finished, antibiotic free, GM free, and HGP free beef to specialist customers in several countries, but especially US, Japan, South Korea and domestically. To improve supply they have offered 3 or 4 month winter contract incentives over the past several years and also import suitable cattle for non Tas-specific markets to maintain throughput. The ability for Greenham to access stock from both Tas and Vic to level out supply problems allows operation in Tas, thereby taking advantage of the quality claims made by their premium brand.

Another processor could:

- divide supply especially during winter
- reduce the ability for all processors to achieve profit
- exacerbate the need to import livestock from outside Tas
- allow customers to play off processors on price more than currently occurs.

All these are detrimental to Tas beef producers.

- **Respondent 3:** Brought more land, increased irrigation
- **Respondent 4:** Management
- **Respondent 5:** More land to increase
- **Respondent 6:** expanding enterprise
- **Respondent 7:** Son coming home; developing irrigation; increasing income to provide for succession
- **Respondent 8:** Better returns from red meat. More integration of cropping with livestock. Long term belief in the future of lamb as an increasing market.
- **Respondent 11:** Farm renovation and pasture improvement
- **Respondent 12:** increased pasture availability
- **Respondent 14:** Irrigation, intensification. Positive lamb / meat industry. Young and silly!
- **Respondent 15:** 2 fold – 1. Land acquisition. 2. Irrigation.
- **Respondent 16:** Increased productivity and confidence in our production system and the industry. Increased profitability as a direct result of Greenham marketing strategies. Increased labour availability, and efficiency.
- **Respondent 17**: Improved wool prices, 50% increase in irrigated area and world demand for sheepmeats Australia. Australia and New Zealand control up to 80% of the sheep and lamb market for exports and much better prospects than beef.
- **Respondent 18**: We purchased more land and continue to do more pasture improvement and more fencing. We have confidence in greenhouse programs and are accredited for all their branded programs. We are keeping animals longer for heavier weights and increasing the matter of growing animals to breeders.

10. Do you have **more** or **less** hectares of crop than 5 years ago?

<table>
<thead>
<tr>
<th>Resp.</th>
<th>More</th>
<th>Less</th>
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<tbody>
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<td>900ha total 800ha grazing / 100ha shelter</td>
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11. Do you intend to run **more** or **less** stock in the next 5 years?

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12. In five years from now do you think Tasmania will have more or less:

<table>
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<th>Dairy Cattle</th>
<th>Sheep/ lambs</th>
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<tr>
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Current and future annual turnoff:

### SHEEP

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<th>Sheep Now</th>
<th>Sheep 5 years</th>
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<tbody>
<tr>
<td>3 (Xbs)</td>
<td>3500</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
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<tr>
<td>6</td>
<td>2500</td>
<td>4000</td>
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<td>10 (flock rams)</td>
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<td>Hopefully 1000 ewes for fat lamb</td>
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<td>40,000</td>
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<td>12000</td>
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<td>2000</td>
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### BEEF

<table>
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<tr>
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<th>Steers 5 years</th>
<th>Cull / surplus</th>
<th>Cull / surplus</th>
<th>Cull Surplus cows now</th>
<th>Cull Surplus</th>
</tr>
</thead>
</table>

Other Comments:

- Thank you Mike for meeting the group members. As discussed the issues in Tas are more seasonal supply driven, especially with lambs, and processing in Vic is more efficient, allowing processors access to 4 states to level out winter supply shortages with Tas lambs. Most customers require consistent numbers and quality of supply. Our opinion is that service kills can be managed by existing local processors, and the Govt would not be assisting Tas red meat profitability in the long term by altering the current processing arrangements and becoming a competitor in the Tas market.
Appendix 4: Continuity of supply – Producer Answers

1. I would need a price incentive to supply outside my normal delivery?

- YES

- As a producer we target selling lambs at around 47kgs and above. We send to works in excess of 8,000 lambs per year. We produce in 2 different regions of the state and have quite a large delivery spread already. Several options exist for extending my current supply habits:
  - I could carry more lambs and sell at lighter weights. So, turn off sooner.
  - Likewise carry fewer lambs and sell at heavier weights. So, turn off later.
  - Neither of these options would necessarily need a price signal to encourage me to do this as would possibly still be achieving the same turn off, of kg’s per hectare. Plus, a combination of both would actually very much extend my sales window.
  - If this was a coordinated process by which we had a committed supply agreement this would only strengthen our position. If we were to add price bonuses for when supply is tight I am sure we would have a turn off model that would help support this.

- Interestingly we have seen a significant reduction in the seasonality of pricing in recent times. The major processors have contracted a big part of their supply in advance and the pricing is very encouraging, no problem getting them filled. This results in a problem getting uncontracted lambs and mutton getting space and a consequent emergence of “gaming” of the system. No doubt this will all abate when we get rain on the mainland or the supply eventually runs out.
  - My view is that the way to reduce the effects of our seasonal supply pattern will be to continue or even expand the trade in early season store lambs from say, the Riverina to Tasmania. There is a huge capacity to finish lambs here and it is a challenge to significantly increase supply given the change in the wool market and the expansion of cropping opportunities.
  - That alone may not be enough and a plant that will survive needs to able operate on a flexible basis with extended hours and days in the peak season and a reduction or even a short seasonal closure for repairs and maintenance. Swifts have done this in the past.
  - An extreme example is the plant in Chilean Patagonia which is extremely seasonal or at least was, operating for about 6 months a year. Not good but it worked

- Yes, absolutely in high or low markets.

- Price incentives would be the only really sustainable way to encourage producers to supply out of season ... although winter price premiums are there, but maybe insufficient.

- We have been extending supply earlier towards winter for several years in response to processor requests and winter contract premiums, to the extent that our pasture production allows.

- Always nice to receive price incentive but our cattle are sold when they are in prime condition at target turnoff weights. We sell lines of cattle when they are ready and replace these at the same time. Setting cattle for sale in late winter/early spring is not easy and attracts a higher risk of lower MSA grades and, therefore, price discounts of typically 45c/kg.

- Price compensation to cover the extra cost of supplying finished cattle outside our ideal timeframe
2. I intend to continue to improve pastures to extend the growing season?

- **YES**
  - The property has an ongoing development plan. This is particularly sensitive to profitability and good seasons. We are renovating runout pastures, converting dryland to irrigation and converting failed forestry back to grazing. All three have a positive impact on carrying capacity. We are also actively seeking to purchase my land. Prime lamb sales this year will probably exceed 10,000 head.
  - Simply put, yes. The people who are making an effort to produce and finish these lambs are on a learning curve utilising grass cultivars, Lucerne, crop stubbles, grain supplements, all with various levels of irrigation input.
- **Yes**
  - Pasture improvement helps extend the growing season, but really requires irrigation & suitable forage crops.
  - We feed more silage through autumn to improve grading potential into late winter, which is partially reimbursed by winter premiums.
  - Pastures are being constantly improved to ensure cattle can express their genetic and visual potential.
  - We are always looking to improve pastures but the greatest gain comes from an improvement in pasture management not necessarily an improved pasture base.
    - The greatest productivity and profitability gains to a grazier come from an increased carrying capacity and per hectare production.
- **Yes**
  - Pastures are being constantly improved to ensure cattle can express their genetic and visual potential.
  - We are always looking to improve pastures but the greatest gain comes from an improvement in pasture management not necessarily an improved pasture base.
  - The greatest productivity and profitability gains to a grazier come from an increased carrying capacity and per hectare production.

3. The change in dentition requirement for lamb (2 teeth acceptable) will allow me to deliver over a wider timeframe?

- **N/A**
- **Yes.** This will extend our window of opportunity.
  - This will be interesting. The change is actually very small and it was disappointing how long it took to do. Indeed there are still some diehards swearing vengeance on whoever did it. Nevertheless I believe it will have a good effect, in particular it will enable producers to keep those later lambs right up to the point of eruption without the fear of dropping off the dreaded price cliff. So it will help in managing through that tricky early spring period and give an incentive to make the best of the opportunity to finish to optimal weights.
  - Yes. Primarily, this will have the greatest effect on the number of merino lambs we can market. Especially into Spring.
  - helpful (maybe), but I see the trade & consumers pushing back against this. Anyway, it’s probably poor economic sense to keep lambs into the following season, to get weight, when there is another lamb drop needing feed. A price incentive, mid-way between lamb & mutton, along with a marketing campaign would probably work here.
- **N/A**
  - Not applicable to me but I agree in a change to definition of lamb. I understand NZ definition of lamb is that two-tooth is acceptable provided there is no visible sign of wear, while in the US lamb is defined by ossification. This means Australian producers have a self-imposed disadvantage.
  - Yes it will help with later season lambs.

4. Increased irrigation will extend my growing period?
• YES
• Yes, not only increase my growing period but more importantly increase my ability to turnoff stock and deliver to contract. It has given us certainty. We now have over 1,000 hectares of irrigation country.
• Simply put, yes. The people who are making an effort to produce and finish these lambs are on a learning curve utilising grass cultivars, Lucerne, crop stubbles, grain supplements, all with various levels of irrigation input.
• We intend to increase our irrigatable area by 25% in the next 3 years.
• Extending irrigation, both on-farm and across the producing areas definitely helps here.
• Winter production can be harmed by extended irrigation over summer in HRAs, but deep rooted fodder crops like lucerne can access subsoil moisture over summer. But we do also some strategic pasture and lucerne irrigating.
• A small irrigation scheme is planned to extend growing our season but it will be small.
• Yes absolutely, sometimes by as much as 120 days. In a failed spring can be the difference between a profit and loss.

5. Other factors?
• Our business has several competing enterprises. Merino, Prime lambs, Beef (Breeding, Finishing), cropping and conservation. Whilst we tend to be slow to adjust to price movements we can adjust and have a more flexible model. For example, what if we contracted to supply some or all of our prime lambs to other finishes, feedlots, we then become more focussed on breeding. The end result being many more lambs with the potential to increase supply volumes. This could include split lambing to provide a greater turnoff window. Greater coordination state wide could have a considerable impact to filling supply short falls. We could also focus on beef breeding only rather than our current model of trying to finish all our calves. This would free up more country for prime lambs which are historically a more profitable enterprise.
• I will comment on public commentary
  o As much as I would like to see a substantial investment in processing capacity here I don’t believe that the Government should be too close to it. I know there is no appetite for Government acquisition of any assets and that is the end of that.
  o On the other hand the Government gives substantial assistance to all sorts of industries and a loan or a form of underwriting to assist the expansion of the existing operator would not be out of line with policy.
  o It is most important that if a decision is made to significantly expand processing capacity it must be done to a fully competitive level both of scale and modern technology. Failure on either front will result in a plant that will not be competitive with the best mainland operations and a slow strangulation.
• Must match competitive pricing for higher valued existing interstate markets.
• Building knowledge around farming best prac. I’m constantly amazed that there are still odd producers that haven’t heard of dual purpose cereal & canola.
Appendix 5: Jennifer Robinson – Sprout

Thank you for taking the time Robert to chat to me last week. In light of our conversation, I have put together some responses from various small meat producers around the state, as well as a list of those who are very happy to chat with you further on this topic and their businesses.

As you are aware, Sprout is a not for profit organisation run by volunteers. Our vision is for a knowledgeable and supportive local food community in Tasmania. At our core, we work with and support small food producers to get their ideas in the ground, growing and to market, while also connecting these producers with consumers. As requested, I have listed below some bullet points outlining why we feel this sector of producers are important economic contributors to the state, deserving of having their needs and concerns tabled for the consideration of the advisory board:

- Many small producers have been heavily impacted by a lack of processing facilities within Tasmania that has compromised their ability to farm ethically and prioritise animal welfare to the standards they would otherwise adhere to.
- Many would like to see mobile commercial abattoir processing enabled through strong policy and health regulations to ensure it can be viable, well managed and safe whilst reducing transportation time and distance for their livestock.
- The ability to inform consumers on exactly where their product comes from, how it was processed and how far it travelled is at the heart of the business model of most small producers.
- Like larger scale farmers, many small producers farm sustainably and improve their soil health.
- Small producers contribute positively to their local communities by maintaining low food miles, enhancing Tasmania’s brand through paddock to plate stories, working with Tasmania’s tourism and hospitality industries to provide local, seasonal produce and diversifying into increasingly popular agritourism ventures to grow Tasmania’s visitor economy.
- Many small producers have partnered with organisations such as Eat Well Tasmania and the Move Well Eat Well campaigns to promote seasonal, locally grown produce as a means to tackle the many diet and obesity related health issues we have in this state.
- Small producers also assist in maintaining a level of food security for our island state.

For the purposes of this exercise, we have loosely classified a 'small' producer as someone that processes 10 animals per week or less.
Survey of small meat producers in Tasmania

Total number spoken to: 10

1 Have the changes of service at the DCA facility impacted your business, if yes, how?

Caused increase in travel time for animals (animal welfare issues and potential negative impact on quality of product)
Concerns about quality assurance
Some processing facilities are not options due to animal weight exceeding 500kg
Sourcing facility to hang the carcass for ageing was difficult

Yes - the DCA was multispecies, now can only process pigs there, so not viable. Had to find another multispecies site. Means more travel/transport, and linking in with livestock transporter who is going each week or so, then carcass transport is difficult, so we collect it ourselves.

Able to use the pig line in Devonport. Slight improvement on return of offal etc.
Transport of carcass is not consistent or flexible
Would like to mitigate risk by having an alternative abattoir, and DCA offers that currently while it in operation.

Currently processing pigs only. a lot quieter and more calm for animals with only one species processing.

2 What are the current risks or challenges to your business in terms of the supply chain?

No certainty for meat carcass transport
No certainty for meat carcass transport
Carcass delivery to businesses other than butchers is unclear and not guaranteed
Not confident in our ability to provide consistency of supply of our product to restaurants
Smaller abattoir doesn’t have same facilities
DCA (under the current lease arrangement) closing is a massive risk, and not having a suitable alternative close by (don’t want to travel more than 2 hours for pigs).
Only having one service provider, so higher risk.
Only having one service provider for pigs in NW - high risk
Risk of not getting our own carcasses back

DCA needs to remain open so we have a viable alternative in the state for pig processing

There is a challenge with communication in some smaller abattoirs - would like to see procedures in place so that people could easily communicate which way they want their animal cut up (having a standard cut up sheet). As it stands, communication isn’t easy, and ability for whole animal return (inc offal, kidney fat etc) is really difficult.

Having more transport options for carcass or large parts would be beneficial to business.

Quality of butchering can vary between abattoirs, but also between staff that are working at a particular site, and it’s hard to maintain consistency of product.

3 Do you have any insights into the industry you would like to share?

Abattoir X operator has been fabulous and helped immensely
Multispecies at one abattoir site is very important for small producers who have mixed species, to get economies of scale.

The food culture in Tassie is huge and growing, having somewhere to process service kills (small numbers, rare bread, heritage) to ensure these farms can service this growing tourism trend.

Mobile slaughter on farm, for commercial consumption should be looked into as a viable option for small farms. Flexible options for health and safety checks for meat inspections to be done online, via video, so lower costs and ensure safety on site. Opportunity for employment options in small communities.

Retaining organic certification via abattoirs is beneficial but not many organically certified options in state.

A collection of smaller processors, that may cost MORE, that are ethical, more flexible, would be much better suited to our way of farming and our priorities. We are NOT price sensitive at all, we have a premium product that we are paid very well for, and that means we have expectations around how animals are treated to produce that product.

If on farm, mobile processing, managed correctly, was an option, then we would LOVE the idea of having our animals processed on farm. The STORY for tourism and food mile considerations, it would be AMAZING and would be worth paying for.

On farm processing would be the silver bullet, as it means we have complete control, animal welfare, and it supports the small producer. OR a farm cooperative run organisation that has no conflict of interest.

Getting good, well trained, staff at abattoirs is something that needs to be focussed on. The trade needs to be respected, well remunerated, and attracting up-coming people into the industry. If we have a community that values high quality produce, we need to ensure that slaughtermen and butchers are supported, and held in higher esteem, and that there is diversity in roles so that we are taking care of people better, to ensure their sustainability in employment in this industry. Recognising people in a food production chain, and being a part of that, rather than part of a 'machine' is a way of ensuring the trade is actually maintained, and that they are in touch with live animals and more during their training.

4 Other comments

It is difficult as a producer to get the facts about abattoir processes.

It’s been incredibly difficult to access accurate and credible information about processing facilities (what they process, what they do as a standard cut, what they will return to you etc).

For us to make an informed decision about this important step in our production, producers should have access to an abattoir list with location details, contact numbers, species and weight capacity. It should also include information about the most recent audit/inspection of the facility – i.e. when and how it rated on animal treatment, cleanliness, refrigeration, storage

Not everyone can process a service kill out of the abattoirs who hold a licence. Some can't take new customers and the others may have weight restrictions for health and safety reasons.
Would like to see all lines open at Devonport. Need a domestic focussed multispecies abattoir in the state (be that multiple smaller abattoirs, or one main facility don't know), better examinations of carcasses to ensure they meet a standard.

Small farms produce the best quality products, and there doesn't seem to be the respect there for ensuring their product gets back to them.

Building beneficial and resilient relationships would be amazing, and so much better for ensuring we are robust as an industry into the future.
Appendix 6: Christopher Howe – Provenir

Provenir is a fully integrated meat processing company that includes a unique component to its supply chain: on-farm processing through fully licenced mobile slaughter units (MSU’s).

Cattle and sheep producers partner with Provenir, have their farms and livestock assessed by us to ensure adequate vehicle access and siting, yards are of a good standard, and that the management systems on the farm produce the best livestock possible. Our key motivation in establishing Provenir was to create the best animal welfare pre-slaughter that could be achieved: we want to align with producers who share that vision, and practice the best animal welfare through the rest of the animals' lives.

Once the MSU arrives on the farm, we integrate it with the existing yards through connecting portable yards. Livestock to be processed have been yarded overnight in familiar yards with familiar herd mates.

The slaughter and carcase dressing occurs inside the MSU, and then a refrigerated vehicle transports all meat products to a boning room in a regional town, not far from the farm, for further butchering, value adding, packaging and labeling for retail sale.

Producers have better, more flexible access to processing, are paid more for their livestock (premium price, no yield loss due to live transport, no transport fees, agents fees, etc) and the opportunity to co-brand with Provenir.

Provenir also offers a secure, fully digitised traceability system. Consumers can access this data via QR codes on products before they buy; they can also see where the meat was grown, and processed: on the actual farm.

MSUs have been successfully operating in the USA, Canada and Sweden for up to 15 years servicing producers of cattle, sheep, pigs, goats, and many other species. These operations provide a proven processing alternative not only for small and medium scale producers, but also large scale producers looking to access premium markets.
Appendix 7: Craig Palmer - Rendering

WTP:

Has 2 Plants

- **Cressy at TQM site.** Currently does all TQM product, plus Nichols Poultry and other smaller Abattoirs Waste
- **Devonport** – Western Tiers has purchased this facility and currently re-fitting this. Bought from JBS – will do poultry, fish waste and small abattoirs Stowport etc. This will provide extra capacity on the island and make less waste go to landfill.
- This Devonport site is required to make more capacity on the island, currently more product goes to landfill than is rendered.
- For example at the moment if TQM increased production then the Cressy plant would have to knock back material from Nichols Chicken and other smaller abattoirs and force them into landfill that costs them to get rid of.
- These plants are also important if there are breakdowns at other rendering plants as there is a facility available to process the waste during maintenance.

Other Island Rendering

- Greenhams/Inghams/JBS have their own rendering only – they don’t render other peoples product
- Tassal do their own fish rendering, though only 50% of the islands generated fish waste is rendered, the rest goes to Landfill.

Other points

- He feels rendering is ignored during the discussions on red meat processing and producers.
- Please include rendering as part of this report and the importance for the industry for removing waste products.
- This process converts poultry/fish and waste products to sale items and a long term viable meat industry needs rendering.
- If further investment into red meat will be more likely if there is a rendering industry that can provide a return on by-products rather than an extra cost associated in production for the removal of waste to landfill. A viable rendering industry would give increased confidence to investors in entering the meat industry.
- Further advantages for bio diversity and disease prevention
Appendix 8: Additional Mecardo Graphs

Climate, cattle cycle and the female slaughter ratio

The key premise behind the study of overseas – mainly the US - and local cattle cycles is that cattle supply, and prices, tend to follow a pattern based on favorable or unfavorable climatic and economic events, albeit cycles of variable length and subject to disruption. Arbitrarily, the start of a cycle is defined when the national herd reaches a low level. At that point, breeding stock numbers are low, demand for weaner cattle is robust, slaughter levels are low and sale-yard prices are on the rise. Enticed by prospects of improved profitability, cow-calf producers retain more cows and heifers, which further contracts supplies on markets and exacerbates the supply shortage, causing even higher prices. The herd build-up phase is then underway. Subsequently, prices peak and producers act to reap the rewards before prices decline, exacerbating the rate of decline in price. The herd liquidation phase is underway. Prices tend to peak in the early phase of the cycle and generally the expansion phase lasts as long as the climate or economic conditions remains favorable. At high herd numbers and with prices weakening, slaughter numbers increase, signaling the beginning of the liquidation phase. This cycle is attenuated by challenging seasonal or economic conditions, and thus vary in length and extent (Figure 3).

The cycles in global and local supply of cattle has implications for beef producers and processors in Australia, and their consumers. The peaks in herd numbers in the US, and globally, and peaks and troughs in prices are mirrored in Australia. Other dynamics seen in the first years of the herd build up phase are worth noting. These are:

- A sharp decline in cow slaughter and a reduction in female cattle slaughter as a percentage of total turnoff.
- Shrinking discounts between cows/heifers and steers.
- Widening premiums of weaners/store cattle over finished lines.
- Solid profit margins for producers running breeders and selling weaners/feeder steers.
The predictable nature of the cattle cycle is certainly true for the USA beef industry. A key measure used to determine whether the herd is moving from the rebuild and liquidation phase of the cycle is the annual measure of female cattle slaughtered as a proportion of the total slaughter, also known as the Female Slaughter Ratio (FSR).

The US herd exhibits a regular pattern of rebuild and decline, however the total herd trend has been one of decline since the mid 1970’s despite a steadily improving price. This pattern suggests pressure on processors to survive the low throughput times to take advantage of the times of high throughput. While Tasmania is not immune from the macro moves in stock numbers, it also must deal with the seasonal or micro moves in supply that pose additional challenges to processor profitability in Tasmania.

There is a clear relationship in the USA between annual herd change and the FSR. A FSR above 47% signifies herd liquidation, while an FSR below 47% indicates herd rebuild (Figure 4).
The relationship between the female slaughter ratio and cattle cycles for Australia demonstrates a similar behavior as seen in the USA, albeit more subdued. The reasons for the US demonstrating a more pronounced pattern of herd rebuild and liquidation than Australia are two-fold.

First, the US is mainly a ‘domestic-centric’ market with around 90% of beef production absorbed by domestic consumers. Second, the US relies more on intensive production methods such as feedlot operations compared with Australia. Hence, the US cattle cycles are largely influenced by local supply/demand fundamentals and somewhat less affected by climatic factors than is the Australian beef supply.

Nevertheless, the FSR threshold of 47% as an indicator that the cattle cycle is in liquidation or expansion holds reasonably well for the Australian herd, as illustrated in Figure 5. Australian beef cycles and prices are directly and reasonably closely related to the US cycles and prices.
Female slaughter and processor margins

In Figure 6 the historic trend for the processor margin is shown, as calculated by the Mecardo processor cut out model. The long-term average monthly processor margin since 2000 sits at around a $35 per head profit and has spent 70% of the time fluctuating between a $65 loss to a $135 profit as highlighted by the grey shaded area of Figure 4.
As approximately seventy percent of Australian beef is exported, the cut-out model primarily uses monthly beef export prices from the major beef trading partners such as US, Japan and South Korea to derive an approximate value of each cut-out piece of the carcase. In addition, co-product prices are used to derive a value for the associated by-products of the slaughter process, which is added onto the total carcase value.

The total carcase value is used to indicate potential average revenue per head of cattle to the processor, on a theoretical basis. Processing costs such as labor, plant operating costs and the initial purchase price of the cattle are determined on a per head basis to arrive at a total cost per head. The estimate of total cost per head of cattle purchased is then subtracted from the total carcase value to arrive at a processor margin per head.

**Sheep cycle and the sheep off-take ratio**

Analysis of the cycle of rebuilding and liquidation of the Australian sheep industry has highlighted a similar ratio indicator to the female slaughter ratio used for cattle markets, as an indicator of which phase the cycle is in.

In this instance, the sheep off-take ratio is measured as a rolling twelve-month total of adult sheep sent to abattoirs from eastern Australia, with the addition of live sheep exports, expressed as a proportion of the total sheep flock.

An off-take ratio under 12% represents a flock rebuild phase, while a ratio over 12% indicates that the flock is liquidating. The pattern of the sheep off-take ratio since 1973 is outlined in Figure 7. Flock growth is shown in grey, where the sheep off-take ratio was below 12%.

![Sheep Flock & Offtake](image)

**Figure 7: Sheep flock and sheep offtake ratio – Source: ABS, ICS, Mecardo**

High wool prices have helped reduce the flow of adult sheep to abattoirs given the dry climatic conditions of the past season. However, midway through 2018, the sheep off-take
lifted to levels indicating downward pressure on the flock size and that the Australian flock is in a destocking phase.

**Climate variability, supply and price**

Lamb slaughter weights have increased considerably over the last three decades but are exposed to changes in seasonal conditions. Year-on-year variances in rainfall conditions explain most of the yearly changes in average carcase weight and ultimately the premiums heavy lambs attract over light lambs (¢/kg cwt basis).

Aside from the evident impact on total lamb meat production, yearly changes in average slaughter weights can also alter the price dynamics between lambs of different weight ranges.

As a rule, in years of falling average weights of lamb carcases, the premiums paid for heavy lambs increase as the supply of those categories diminishes. In years of increasing average weights, on the other hand, the premium of heavy lambs over lighter lambs shrinks.

When stock are held back from the market because of improved seasonal conditions, and producers rebuild their flocks, surplus processing capacity prevails.

In drought, when graziers want to destock quickly, the supply of stock to be processed can exceed abattoir processing capacity. As the season deteriorates the proportion of adult sheep sold off-farm rises. When seasonal conditions and outlook improves, the proportion of the flock sold as adult sheep falls.

The market prices for sheep and sheep meat products along the supply chain are influenced by many factors. Farmgate prices are influenced by the domestic demand for sheepmeat, the available supply, export prices, currency exchange rates, world trade and the strength of international demand.

In Australia, as the largest global exporter of lamb and sheep meat, the profitability of the production and processing sector is influenced strongly by international demand. As such, local market prices reflect the following global factors:

- Foreign exchange rate
- Trade relations, free trade agreements, market access
- Seasonal conditions
- International population dynamics and consumer demand

Regression analysis of annual average Australian lamb and sheep prices converted into US¢/kg compared to Organisation for Economic Co-operation and Development (OECD) sheep meat production data shows that there is a strong negative correlation between global supply and Australian prices, in US dollars (Figure 8).
A measure of OECD sheep meat production data encompasses most of the countries that Australia trades or competes with, in the international sheep meat sector. Given that nearly half of the Australian lamb produced and almost all of the Australian mutton produced is exported, Australian sheep meat markets and prices reflect global supply trends. The respective change in price to change in production between annual Australian lamb and sheep prices and annual OECD sheep meat production levels shows that the corresponding returns are interdependent (Figure 9).
According to Food and Agriculture Organisation (FAO) estimates, OECD sheep meat production is forecast to increase by 10% over the next decade. Similarly, MLA forecasts Australian lamb production to expand by around 3% by 2022.

Expansion of production of sheep meat would put downward pressure on prices over the coming decade, but continued growth in global demand is anticipated to counteract the increasing supply. Sheep and lamb prices are expected to maintain relatively high historic levels for the next five years.

Growth in demand for sheep meat (Figure 10), highlights how improved access to international markets, has enabled Australian producers to capture higher prices as supply (slaughter levels) increased over successive seasons.

Sheep production and therefore supply predominately originates from Australia & New Zealand. Combined they account for +80% of world exports, therefore price outlook is strongly influenced by projected supply from these countries, given that demand continues to grow in line with population growth.
The chart plots the average annual Eastern States Trade Lamb Indicator (ESTLI) against the annual average monthly slaughter figure recorded for each season since 2000. It demonstrates how the slaughter numbers have increased over that time. Prices for lamb have increased over this time despite rising supply/production, reflecting the effects of demand also increasing.

Potential investors in further meat processing in Australia should be mindful of the cyclical nature of the livestock supply and the impact these cycles have on the meat processing industry. In a broader context, Tasmania is part of the Australian market and further discussion is provided later in this report.

Forecasting cattle prices, however, needs to take account of a wider range of inputs due to the much broader supply base of beef to world markets.

The Mecardo EYCI forecast model (Figure 11) provides an indication of the impact that global and local cattle cycles are likely to have on the EYCI during the annual season and forecasts are updated whenever there is a significant change to any of the underlying inputs.

Inputs to the model include:

- annual US to Australian beef production ratio estimates
- US beef futures pricing curves
- global and local production and slaughter estimates
- global feed forecasts
- currency predictions
- climate outlook.
The model predicts the EYCI to average 490¢ over the 2019 season, which assumes a reasonably normal to slightly drier rainfall pattern. A return to a wetter rainfall scenario would see the EYCI average 555¢ in 2019 and could stretch toward the 600-650¢ level during the seasonal cycle peak.

![EYCI Annual Average Forecast](image)

**Figure 11: EYCI Annual Average Forecast Source: Mecardo**

Anticipated growth in the Australian herd size and production/slaughter levels, combined with the North American herd likely to enter into a liquidation phase, is likely to act as a headwind on domestic cattle prices beyond 2020 to see the annual average EYCI ease toward 420¢ by 2023.

**Pork production**

During the 2018 season average pig prices in Australia declined on the back of an increase in the pig slaughter levels, due to tightening operating margins as feed prices surged. A decline in pig meat production into 2019 is expected to place some upward pressure on prices. ABARES forecast that slaughtering's of pigs will decline from 5.25 million in 2018-19 to 4.88 million in 2019-20. The recent peak production was in season 2017-18 where 5.38 million were slaughtered, with an expectation that numbers will slowly lift above 5.0 million by 2021-22.

Furthermore, consumer preferences and income / population growth are expected to underpin consumer demand for fresh pig meat.
Figure 12: Annual Average Pig Price in Australia (¢/kg cwt) Source: APL, Mecardo

Figure 12 demonstrates the annual average pig price in ¢/kg cwt since 2002, outlining the long-term average of 2.90¢ (as expressed by the orange dotted line) and the normal range, as highlighted by the grey shaded zone between 245¢ and 335¢.

Feed grain inputs are a significant cost to the pig industry representing nearly 60% of the operating cost structure. Tasmania is a net importer of grain for stock feed, with a cost generally calculated as ex Geelong Port plus freight. In forecasting, an allowance of circa $60 per tonne is used as the average added cost of grain to Tasmanian pig producers which adds extra cost compared to mainland pig producers. Elevated feed grain prices and low pig prices during the last few years have pressured farm returns. This is likely to drive continued structural adjustment in the industry.

During the consultation phase of this study one of Tasmania’s larger producers of pigs has announced that his piggery will wind down and close. Another is in danger of closing if DCA does not continue.
Dairy Cattle Herd

Sheep Flock

Pig Herd

Australian  Tasmanian
Appendix 9: Licenced Meat premises in Tasmania

ACCREDITED MEAT PREMISES IN TASMANIA

DOMESTIC meat premises can sell into Australian markets, and are periodically audited by DPIPWE.

The following facilities were willing to be listed on the Department of State Growth website for those seeking alternative slaughter facilities when Devonport closed to lambs and cattle.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Region</th>
<th>Species processed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cradoc Hill Abattoir</td>
<td>Huon Valley</td>
<td>Cattle, sheep, pigs and other</td>
</tr>
<tr>
<td>Devonport City Abattoir</td>
<td>Devonport</td>
<td>Pigs</td>
</tr>
<tr>
<td>Gretna Meatworks</td>
<td>Derwent Valley</td>
<td>Cattle, sheep, lambs, pigs and other</td>
</tr>
<tr>
<td>Stowport Abattoir</td>
<td>Burnie</td>
<td>Cattle, sheep, lambs, pigs and other</td>
</tr>
<tr>
<td>S R Woods</td>
<td>Fingal, Break O’Day</td>
<td>Cattle, sheep, lambs, pigs, and other</td>
</tr>
</tbody>
</table>

There are a further seven accredited red meat premises on the Tasmanian mainland, located at: Eaglehawk Neck, Elderslie, Lapoinya, Pyengana, Ringarooma, Ridgley, and Scottsdale.

TIER 1 EXPORT establishments can sell domestically, and to 27 listed countries.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Region</th>
<th>Species processed</th>
<th>Service kills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tasmanian Quality Meats (TQM)</td>
<td>Cressy, Northern Midlands</td>
<td>Sheep, lambs, calves</td>
<td>Yes</td>
</tr>
</tbody>
</table>

TIER 2 EXPORT establishments can sell meat to all countries, including the US, UK and China. Australian Government officers must be on site during all operations, paid for by the meat premises.

<table>
<thead>
<tr>
<th>Facility</th>
<th>Region</th>
<th>Species processed</th>
<th>Service kills</th>
</tr>
</thead>
<tbody>
<tr>
<td>JBS Longford</td>
<td>Northern Midlands</td>
<td>Cattle</td>
<td>Large customers only</td>
</tr>
<tr>
<td>Greenham Smithton</td>
<td>Circular Head</td>
<td>Cattle</td>
<td>Large customers only</td>
</tr>
</tbody>
</table>
Appendix 10: Abattoir figures

State Growth Figures

<table>
<thead>
<tr>
<th>Total livestock</th>
<th>Sheep</th>
<th>Cattle</th>
<th>Dairy Cattle</th>
<th>Pigs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cradle Coast</td>
<td>61669</td>
<td>353589</td>
<td>159091</td>
<td>426</td>
</tr>
<tr>
<td>North</td>
<td>1008668</td>
<td>331250</td>
<td>101815</td>
<td>18847</td>
</tr>
<tr>
<td>South</td>
<td>1011970</td>
<td>45389</td>
<td>7902</td>
<td>1476</td>
</tr>
<tr>
<td>Total</td>
<td>2082307</td>
<td>730228</td>
<td>268807</td>
<td>20749</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% livestock</th>
<th>Sheep</th>
<th>Cattle</th>
<th>Dairy Cattle</th>
<th>Pigs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cradle Coast</td>
<td>3%</td>
<td>48%</td>
<td>59%</td>
<td>2%</td>
</tr>
<tr>
<td>North</td>
<td>48%</td>
<td>45%</td>
<td>38%</td>
<td>91%</td>
</tr>
<tr>
<td>South</td>
<td>49%</td>
<td>6%</td>
<td>3%</td>
<td>7%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Head processed 2016-17</th>
<th>Sheep</th>
<th>Lambs</th>
<th>Cattle</th>
<th>Calves</th>
<th>Pigs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cradle Coast*</td>
<td>2953</td>
<td>14838</td>
<td>90730</td>
<td>25869</td>
<td>700</td>
</tr>
<tr>
<td>North*</td>
<td>48292</td>
<td>242690</td>
<td>84998</td>
<td>16555</td>
<td>30980</td>
</tr>
<tr>
<td>South*</td>
<td>48450</td>
<td>243485</td>
<td>11647</td>
<td>1285</td>
<td>2426</td>
</tr>
<tr>
<td>Total</td>
<td>99694</td>
<td>501013</td>
<td>187374</td>
<td>43709</td>
<td>34106</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Head processed 2017-18</th>
<th>Sheep</th>
<th>Lambs</th>
<th>Cattle</th>
<th>Calves</th>
<th>Pigs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cradle Coast*</td>
<td>3042</td>
<td>12391</td>
<td>105705</td>
<td>27461</td>
<td>729</td>
</tr>
<tr>
<td>North*</td>
<td>49748</td>
<td>202673</td>
<td>99026</td>
<td>17575</td>
<td>32246</td>
</tr>
<tr>
<td>South*</td>
<td>49911</td>
<td>203336</td>
<td>13569</td>
<td>1364</td>
<td>2525</td>
</tr>
<tr>
<td>Total</td>
<td>102700</td>
<td>418400</td>
<td>218300</td>
<td>46400</td>
<td>35500</td>
</tr>
</tbody>
</table>
Appendix 11: Pasture Productivity (Richard Rawnsley)

My current thoughts are that identifying opportunities, capturing the value and overcoming blockages within the supply chain is critical to the growth of the red meat industry in Tasmania. I do feel that the growing dependence on off-island processing creates a risk to the Tasmania brand.

A lack of processing in the state has seen the number of sheep (lamb and mutton) shipped interstate increase significantly with touted estimates as high as 700,000 head. It is hard to get referenced numbers. The logistics and price received all seem ok. It appears that there is no market failure and government intervention is not required. However, there are concerns about what could disrupt this chain, changing prices, concerns about live transport, loss or change in freight subsidies etc. There is also the risk of any further closure of processing capacity in Tas. How will the state respond and is it able to? The impact of processing closure on employment and rural communities are of understandable concern.

Tasmania’s pasture-based red meat production, ban on HGP use and the moratorium on GMOs, have been important factors in marketing a premium grass-fed product. Are we becoming too reliant on the consolidation of product and accepting of commodity production and price model? Think we need to create an enabling environment that leverages Tasmania’s brand. Much effort goes into creating a high-value quality product at the farm gate. We should aim to enhance this value and quality through the supply chain and share in that value for the betterment of Tasmania.

I see similar comparative advantages around pasture productivity in the red meat sector as I have seen in dairy. Many of Tasmania's pastures are underutilised and underperforming. Irrigation is bringing options for intensification to many regions within the state which have traditionally been used for extensive, low input pastoral farming. The disruptive change of irrigation developments combined with the latent potential of Tasmania's existing feedbase is a significant opportunity for growth in the Tasmanian red meat sector. Livestock production accounts for 60 to 65% of the gross value of agriculture with meat contributing 45% of livestock production value. The farm gate value of meat increased by 23.0% in 2015/16 due to strong beef prices, although processing statistics suggest a minimal change in the amount of meat processed during the past decade, averaging around 75,000 tonnes cwt (ABARES 2017). Current estimates are that Tasmania has approximately 650,000 head of cattle and 2.2 million sheep.

TIA studies have indicated sub-optimal pasture species composition occur in 70% of Tasmanian pastures with averages of 33% improved perennial grasses and 12% legume. Production per hectare estimates are that Tasmania produces on average 150 kg cwt/ha (guestimate area of 0.4-0.5M ha) with average pasture consumption of 3 to 4 t DM/ha. Significant growth opportunities exist to increase productivity through improvements in feedbase and animal performance.
A pasture consumption improvement of 0.5t DM per ha across the industry would approximate to an additional 15,000 t LWG per annum or ≈ $40M per annum. Key focus areas for achieving this would be

- Management practices to optimise growth, perenniality and persistence.
- Adopting novel approaches to measuring pasture availability, improving the predictive capability of feed supply, providing alerts and the linkage of key feeding and management decisions within a whole of farm system context.
- Exploring and quantifying the system fit of pasture and forage options to help fill seasonal feed gaps,
- Successful adoption of technologies that achieve an increase in homegrown feed consumption and identify the management and cultural practices necessary for achieving this.

There are currently 86,833ML of water entitlements under Tasmanian Irrigation’s operation, with a capacity of 111,424 ML. Demonstrated production potential of irrigated beef systems of almost 2,000 kg LWG/ha per annum. New feed-base resources, precision technologies and enabling practice for irrigation and nitrogen management offer the potential to significantly improve the efficiency of this production target. If 2.5% of 400,000ha were to be irrigated = 10,000ha of irrigated red meat production @ 1,500kg LWG/ha = 15,000 t LWG per annum or ≈ 11,250 t LWG additional ≈ $30M per annum.

Source: Southern beef situation analysis (B.COM.0351, Holmes and Sackett, 2014)
Appendix 12: EAT Group report

EAT Group overview

- EAT Group is Agriculture Investment management business that identifies and builds vertically integrated supply chain businesses with a focus on producing premium Australian products for both the domestic and export markets
- Established in 2012
- Strategy has been to build a protein platform of investments which includes infant formula, premium red meat, plant based protein, seafood, functional foods etc. to name a few
- Key services: Opportunity identification, strategy, design, build, commissioning, capital raising, exit strategies
- Operates their own investment platform via the EAT Group Agri Fund, or facilitates direct investment into its underlying assets

King Island Beef

- Bespoke build of a meat processing facility on King Island with an associated King Island beef brand (King1801)
- A truly vertically integrated premium Australian food production supply chain (farm gate to plate)
- Focus is on premium beef customers and markets (i.e. non-commodity) with a providence story
- Scoped to process circa 180 per day
- Employ circa 80 staff (50% permanent / 50% seasonal)
- Export accredited once commissioned
- Full processing capability: slaughter floor, boning room, rendering, offal, meat & bone, and hide processing
- Environmentally friendly: fully recyclable waste water management system, solar, burning tallow for energy consumption
- $AUD40m capital + build of accommodation for workers + working capital
- 70% of King Island farmers have signed long term foundation supply agreements. Provides them with a portion of equity in the new processing facility and majority ownership of the new brand (King 1801 Imperial beef)
- In return, they must commit their animals to the new meat processing facility on a long term basis in order to receive access to brand royalty revenue stream, equity distributions etc.

Progress to date:

- 2016 – Commenced project: Foundation supply agreement signings, site selection etc
- 2017 – Design development, Town planning & EPA submissions and approvals. Secured lease of small King Island abattoir and purchased King Island Butcher shop
- 2018 – Construction delayed due to an objection by one farmer. All tribunal and legal proceedings dismissed by Dec 2018
- 2019 – Project plans recommenced. 15-18 month construction delivery schedule
Summary of King Island beef business model:

- Vertically integrated supply chain with a brand
- Focus is on premium, not commodity
- Clear strategy for both the domestic and export market
- Farmers are a critical partner in the business model (i.e. equity, brand owner, board seat etc.)
- Binding agreements on farmers to commit to long term supply of their animals
- Flexible ownership structure without the need to have a Co-op
- Bespoke build of a state of the art meat processing facility that is environmentally friendly, has latest technology and export accredited

Commentary on the above from Meridian Agriculture:

The Tasmanian processing sector will be affected by any changes in the demand for livestock in Tasmania, Australia and Internationally. However Tasmanian processors and others who buy livestock which are bred in Tasmania will be directly affected if additional investment in meat processing capacity as mooted for King Island by the EAT Group is established.

The EAT Group was established in 2012 as an agricultural investment and management business that ‘identifies and builds vertically integrated supply chain businesses focused on producing premium Australian products for both the domestic and export markets’. The strategy of the EAT Group has been ‘to build a protein platform of investments which includes infant formula, premium red meat, plant based protein, seafood and functional foods’. The Group operates its own investment platform via the EAT Group Agri Fund, or facilitates direct investment into its underlying assets. The Group plans to build of a meat processing facility on King Island with an associated King Island beef brand (King1801).

A spokesperson for the EAT Group informed Meridian Agriculture that the Group has acquired the land, has planning approval, has approximately seventy percent of the $55,000,000 capital and contracts with King Island producers that will guarantee them the supply of approximately seventy percent of the annual King Island beef cattle turnoff. The claims in relation to the number of cattle on the island the percentage committed are disputed by some King Island producers. Further information provided by the EAT Group is in Appendix 12. Several possible scenarios could result from the activity of the EAT Group.

Scenario One: The EAT Group puts together sufficient funds to build the plant and is able to attract all the cattle from the island that are required to be economically viable. This would have an impact on other processors and reduce supply for processing in Tasmania, possibly to the extent that the Longford and or the Smithton plant closes.

Scenario Two: The EAT Group is able to obtain sufficient funds to build the plant and is moderately commercially successful in its attempt to attract cattle. This will have an impact as in Scenario One, but to a lesser extent.
**Scenario Three:** The EAT Group is able to obtain sufficient funds to commence operations but is not able to maintain a profitable business. There would have been increased price competition for cattle while other processors protected their market share. If the new abattoir subsequently closed, prices would revert to trend and King Island would have another decommissioned abattoir and thus no long term impact on Tasmanian processing sector.

**Scenario Four:** The EAT Group is unsuccessful in securing the necessary capital and the project is abandoned. So no impact on Tasmanian processing sector.
Appendix 13: Gozzi and Dickinson paper

OVINE INDUSTRY

Comments by Doug Dickinson 18 March 2019

The problem of continuous operation is: Say a plant is operating on annual production of 310,000 to 350,000 per annum. The difficult months are May-June-July-August-September and these months suit the Tasmanian high midland country; Bothwell, Ouse, Hamilton etc. where there are larger holdings producing high quality clips of wool with later lambing than other areas because they are higher, wetter and colder during the Winter. Already “Dungrove” at Bothwell market their cast for age for ewes, sheep (mutton) and lambs during May with TQM and large numbers. The aim would be to come to an arrangement with these producers for a later delivery with a special price. I believe it would be no trouble to find 100,000 units over these 5 months.

Our proposal for Co-op members would target those growers who now have large areas of permanent irrigation for Summer growth, and not being grain growers. This would suit them.

The next process to encourage all year processing other initiatives should be considered including possible temporary suspension of the Tasmanian Freight Equalisation Scheme for May-June-July-August-September for all processing livestock to Victoria i.e. $4 to $6 per head. This would assist local processors and it could be paid to them possibly. That would represent 50 cents per kilo.

(*If there is sufficient processing here there should be no freight subsidy at all. All it does is export jobs. The saving of freight and dressed weight recovery and quality represents $20 per head or a dressed weight of 24 kilo is 83 cents per kilo. After all if value adding can be achieved in Tasmania then this should be the first priority)

The difference on price between Victoria and Tasmania has been 15% over a 12 month period (I have kept these figures), so we must get up to Victorian price. Therefore a 6.50 kilogram lamb price here must get to $7.47. This will happen with no freight paid by the grower $9.00 plus loss of 1.5 kilo say 6.50 to 9.75 and no subsidy (TFES). Therefore 83 cents plus no freight subsidy 50 cents is $1.33. Say current price 6.50 per kilo plus 1.33 is $7.83 and is above Victoria prices; currently $7.40.

The other advantages would be:

- Animal health and well-being. No more 50-60 hour trips plus standing time. Now outside the 36 hours watering time.
- Better for Brand Tasmania.
- Better for Tasmania’s high unemployment rate.
- Better for delivery times these is now a 5 week wait to ship lambs from Tasmania to Victoria because the Victorian processors are full up (booked out 17/3/19)
Appendix 14: Indicative budget of capital requirement and operating costs of building a new abattoir

The example analysis is based on a slaughter and boning operation in Tasmania. The industry trend is for viable plants to process more than 2800 lambs per day or 700,000 per year.

Table one shows
- the costs and margins of killing 700,000 per year (Plant Size A) and
- the costs and margins of killing 450,000 per year (Plant Size B)

To be profitable processing trade lambs (18-24 kg crossbred lambs) or heavier export crossbred and merino lambs (24-32kg) the plant would be required to have a full Tier 2 export license. This would be necessary to have access to a range of markets and extract full value from the cuts and by-products, which in turn would allow the plant to purchase lambs at a price that is competitive with competitor processors.

For this reason, the figures have not been extended to a smaller Tier 1 export or domestic plant.

Table 1: Theoretical Cost to Build and Operate a Sheep Abattoir at 700K and 450K units per year

<table>
<thead>
<tr>
<th>Theoretical Cost to Build and Operate a Stock Processing Plant at 700k and 450k units per year</th>
<th>Plant Size A</th>
<th>Plant Size B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Livestock Units per Year</td>
<td>700000</td>
<td>450000</td>
</tr>
<tr>
<td>Average Livestock Units per Day</td>
<td>2800</td>
<td>1800</td>
</tr>
</tbody>
</table>

**Capital Cost**

<table>
<thead>
<tr>
<th></th>
<th>Plant Size A</th>
<th>Plant Size B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Capital</td>
<td>$ 2,000,000.00</td>
<td>$ 1,500,000.00</td>
</tr>
<tr>
<td>Estimated Initial Capital Cost</td>
<td>$ 33,000,000.00</td>
<td>$ 22,500,000.00</td>
</tr>
<tr>
<td>Total Investment Requirement</td>
<td>$ 35,000,000.00</td>
<td>$ 24,000,000.00</td>
</tr>
<tr>
<td>Amortization (Investment Return 6% per year, pre tax and Depreciation)</td>
<td>$2,397,414</td>
<td>$ 1,634,600.51</td>
</tr>
</tbody>
</table>

| Investment required per Unit | $ 3.42 | $ 3.63 |

**Operational Cost**

<table>
<thead>
<tr>
<th></th>
<th>Plant Size A</th>
<th>Plant Size B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slaughter Labor Cost/ day</td>
<td>$10,500.00</td>
<td>$ 7,200.00</td>
</tr>
<tr>
<td>Services Cost Per day</td>
<td>$ 8,000.00</td>
<td>$ 6,500.00</td>
</tr>
<tr>
<td>Other Costs /day</td>
<td>$ 5,000.00</td>
<td>$ 5,000.00</td>
</tr>
<tr>
<td>Total Slaughter Cost Per Day</td>
<td>$23,500.00</td>
<td>$18,700.00</td>
</tr>
<tr>
<td>Total Slaughter Cost Per Unit</td>
<td>$8.39</td>
<td>$10.39</td>
</tr>
<tr>
<td>Total per Unit return requirement</td>
<td>$11.81</td>
<td>$14.02</td>
</tr>
</tbody>
</table>

Table 2: Theoretical Margin Requirement on processed Units to meet plant costs and Investor expectations

<table>
<thead>
<tr>
<th>Theoretical Margin Requirement on processed Units to meet plant costs and Investor expectations</th>
<th>Plant Size A</th>
<th>Plant Size B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slaughter By-product margin estimate per Unit</td>
<td>$7.50</td>
<td>$7.50</td>
</tr>
<tr>
<td>Minimum Margin requirement from meat sales</td>
<td>$4.31</td>
<td>$6.52</td>
</tr>
</tbody>
</table>

Meat processors expect to recover more than half of the cost of kill from the by-product sales but accept that some of the kill cost will come from meat sales. Capital investment of around $30 million is required for Plant Size A. Assuming the $7.50 per lamb by-product margin, the investment (amortized over thirty years at 6% pre-tax return) would require a minimum kill margin from meat sales of $4.32 per lamb. This is within the expected range in the Australian industry.

For the smaller works (Plant Size B) involving around $20m capital investment and processing 450,000 lambs annually, after $7.50 margin from by-product, the minimum margin required on meat sales is $6.52. Considering the degree of competition in the industry the marginal cost difference ($6.52 - $4.31) $2.21 per unit could make Size B (the lower volume) unviable.

Read and Malcolm (1994) found that Industrial Relations was a major issue in 1994 and could be in future. In summary the report found that profitability of meat processing is determined by market prices for livestock and meat, capital costs and capacity utilisation, and to a lesser extent non capital inputs. Overall utilisation of slaughter capacity is important as well as the amount of variation that occurs. In particular, variation and fluctuation of conditions, means that new entrants should consider planning horizons of at least 10 years.

The major issues raised in the report are:

- Victorian slaughtering and processing is influenced by its location to major export ports. In 1992 value adding was just starting to be important. The shift from small butchers to large processors was becoming evident and industrial relations was an issue as was Workcare and training.
- Seasonality of livestock supply was identified as a major issue because some processors wind back production in winter to three to four days per week. There were implications for profitability of plants, but also retention of good staff. However, it was regarded as easier to shed staff (more flexible) than to invest in capital that may be under-utilised. This leads to a higher labour to capital ratio. With new technology and mechanisation and robotics, this may not still be the case. Farmers say it’s simple ‘pay us sufficient premium for off season supply and we will deliver out of season product’!
- There was very little forward contracting in grazing systems. More lot feeding may address seasonality issues and this is probably what has occurred.
- Shipping constraints and requirements (i.e. chilled beef 30 days maximum) was a key consideration affecting efficiency of meat supply to international markets.
- Competition from live sheep trade was identified as a risk to processors.