



milestone report

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Feasibility study for developing an Indigenous branded range of beef products and services (Producer Innovation Fast-track)

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Executive Summary

Western Kangoulu Indigenous Group, University of Southern Queensland (USQ) and Meat & Livestock Australia (MLA) through the MLA Donor Company (MDC) are examining the desirability, feasibility and commercial viability of Indigenous branded beef products and services. The research included assessing the opportunities for new beef products branded as ‘Blackfella Beef’ and the alignment with Indigenous culture, business development and employment across the whole value chain. This research was funded by the producer innovation fast track program.

An integral component of the ‘Blackfella Beef’ vision is to provide support and employment opportunities to the Indigenous communities involved with the ‘Blackfella Beef’ enterprise. This support will come in terms of skills development, employment, infrastructure and improvements to the genetics of Indigenous beef herds. The ‘Blackfella Beef’ project is working with existing organisations and programmes to leverage project resources, to utilise existing services where appropriate and useful and to develop new and innovative approaches where necessary and possible.

The project have identified processing 2000 cattle per annum will deliver an initial \$4M sales opportunity for ‘Blackfella Beef’.

<p>Western Kangoulu vision is to create a commercially viable and socially inclusive Indigenous beef business</p>	<p>Western Kangoulu Indigenous Group vision has a focus on developing a commercially viable beef business with</p> <ul style="list-style-type: none"> ● Common Indigenous branding across disparate Indigenous groups/communities across supply chain ● Strengthening of the supply side of the beef value chain with improved property management. ● Increased employment for Indigenous people throughout the supply chain ● Increase in the number of Indigenous social and profit making enterprises ● Improved education of Indigenous people by increasing the number of food, agricultural and logistics scholarships at schools and universities to support the development of the beef value chain ● Increased Indigenous entrepreneurial opportunities aligned with ‘Blackfella Beef’ for example in the tourism sector.
<p>Demand for Indigenous produce is strong</p>	<p>Domestic and global markets are responding to the increasing demand for Indigenous products. Feedback from institutional customers and individual consumers has shown strong</p>

	<p>support for the 'Blackfella Beef' brand, but some are not sure about the name.</p>
<p>Commercial viability</p>	<p>There was no indication from consumers or business customers that they would pay a premium for Blackfella Beef. However, commercial partners indicated that they would promote the brand's development and were keen to purchase the produce.</p>
<p>Shelf-stable beef products are the focus for the tourism and military markets.</p>	<p>Shelf-stable products (beef snacks) such as beef jerky and beef broth can be packaged with labelling information about the Indigenous origins. This has strong appeal to Chinese tourists as gifts. The 'Blackfella Beef' label should be supported by a website with stories about the Indigenous properties. Beef snacks could also be of interest to the army as part of their 'military packs' and on Qantas flights where they serve ready to eat meals.</p>
<p>Feasibility - Building an efficient supply chain is key to maintaining quality and competitive advantages.</p>	<p>The properties that are Indigenous owned and could provide beef cattle are generally in remote regions of Queensland and northern Australia. They are a long way from abattoirs – often the northern Australian properties are managed to supply live trade markets in Asia. Indigenous beef properties are highly variable in stocking rates and quality of the infrastructure.</p> <p>Developing an Indigenous beef supply chain that can consistently supply cattle will require a property management strategy. The disruptions along the Indigenous beef supply chain to abattoirs and markets, are:</p> <ul style="list-style-type: none"> • inadequate infrastructure, • long transport distances, • transport mode changes • climatic conditions such as floods. <p>All these factors will add costs to transport and be detrimental to the condition of the cattle. Therefore, the group is looking at properties closer to abattoirs where northern cattle can be 'backgrounded' ready for processing.</p>
<p>'Blackfella Beef' Services can support the growth of the brand 'Blackfella Beef' on-farm and post farm gate activities will require substantial skills development, investment, partnerships and support.</p>	<p>To support the growth of 'Blackfella Beef' products, a suite of property management and workforce development services is required to upskill Indigenous workers. The types of support that potential customers or investors were prepared to provide varied. They all indicated that they would support Indigenous employment. Some companies were prepared to go further and co-develop workforce development programs that would facilitate longer-term capacity building relationship.</p>

<p>Customer insights, Asian tourists are very interested in Indigenous culture and learning about Indigenous food.</p>	<p>Consumer analysis has indicated that ‘Blackfella Beef’ products with a story, bush foods and social enterprise connections – such as supporting employment on cattle properties – has a strong appeal to consumers.</p> <p>The tourist market has indicated that they are searching for unique experiences and gifts that have an Indigenous focus. Farm tourism can support the properties and the brand. Asian tourists indicated that they wanted a complete experience, they want to learn about Indigenous culture, visit a property and see how traditional food is prepared. They also want to purchase gifts.</p>
<p>Personalised nutrition has opened a market for niche producers like ‘Blackfella Beef’</p>	<p>Personalised nutrition and a focus on wellbeing provides an opportunity for ‘Blackfella Beef’ to capitalise on their grass fed beef complemented by bush food flavourings. Snacking is a rapidly growing market and beef protein bars and broths represent an opportunity to introduce consumers to ‘Blackfella Beef’.</p> <p>Labelling to ensure the source of the beef was authentic was considered highly important by consumers.</p>
<p>The tourist market has indicated that they are searching for unique experiences and gifts that have an Indigenous focus.</p>	<p>Insights from a series of customer development discoveries found that Asian customers are looking for an Indigenous experience and gifts that they can take home</p> <p>An experience and the story that highlights Indigenous cattle properties as the source, and that has a health and well-being focused with native Australian bush foods flavourings and supplements.</p> <p>International tourists summary</p> <ul style="list-style-type: none"> • Increased participation in Indigenous tourism experiences from 11% (2015) to 15% (2018) • Food experiences rated high in tourism experiences • Chinese tourists favour authentic Indigenous Australian experiences • Japanese 2017 expenditure is up 14.1% and visitation is up 9.2% • South Korean 2017 expenditure is up 13% and visitation is up 14% • US expenditure is up 2.3% and visitation is up 9.6%
<p>Demand will outstrip supply. ‘Blackfella Beef’ needs to partner with businesses that can support their growth through skills development, investment</p>	<p>The addressable market. Given that Australian Government institutions and many corporations have some engagement with Indigenous procurement, the project team have found that demand will immediately far outstrip production capacity. This can lead to upward pricing benefits for the producers groups and brand-owners over time and may</p>

<p>and reasonable returns for the beef products.</p>	<p>suggest ‘special buys’ key events catering (e.g. NAODIC week) as an initial strategy .</p> <p>Some catering companies indicated that they can take all the beef that ‘Blackfella Beef’ can supply. However, the price point offered is low. Therefore, the ‘Blackfella Beef’ team are in the process of deciding who is the best customer, based on only on price, but on how they uphold their values and vision.</p>
<p>Shelf-stable products provide opportunities to expand further into markets.</p>	<p>Shelf-stable products are an attractive option as the timeframe for sale of the product is longer than is the case for fresh beef products. Some of the product options include beef snack bars, beef bone broth, beef bone broth powder and sous vide meat packs</p>
<p>Costs to produce shelf stable products based on ingredient, thermal processing, labour and packaging costs is mostly economically feasible.</p>	<p>The costing for production of beef snack bars ranges from approximately \$30-\$80/kg of beef bars produced compared to a retail value of \$100-\$150/kg.</p> <p>The costing for production of liquid beef broth ranges from approximately \$3-\$7/L of broth produced, compared to a retail value of \$14-\$48/L.</p> <p>The costing for production of beef broth powder ranges from approximately \$20-\$30/kg of broth powder produced, compared to a retail value of \$200-\$590/kg. This production cost may not account for any extra extraction steps.</p> <p>The costing for production of sous vide beef packs ranges from approximately \$8-\$20/kg of sous vide packs produced.</p> <p>Overall, these costings may need to be adjusted for any overheads, marketing and any other sundry costs.</p>
<p>The use of native bush foods in the production of shelf-stable beef snacks can help create a holistic ‘Blackfella Beef’ product.</p>	<p>Bush foods provide an opportunity to add extra nutritional content into ‘Blackfella Beef’ snack products. This also allows further potential to market these as true ‘Blackfella Beef’ products with all Indigenously sourced ingredients.</p>

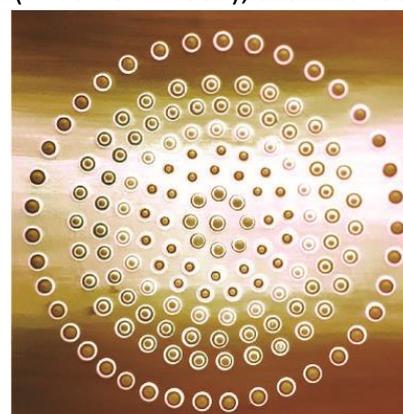
1 Project Scope

Western Kangoulu (WK) Indigenous Group, the University of Southern Queensland (USQ) and Meat & Livestock Australia (MLA) through the MLA Donor Company (MDC) – Producer Innovation Fast Track (PIFT) Program are collaborating to examine the desirability, feasibility and commercial viability of Indigenous branded beef products and services. Additionally, the team have also investigated development of a supply chain strategy and business model(s) for such products.

1.1 Background

Indigenous branded products, marketed as ‘Blackfella Beef’ (‘Blackfella Beef’), are a concept (Figure 1) that was developed collaboratively by the WK Indigenous Group with Growing Central Queensland (GCQ) and members of Wangan Jagalingou (WJ), but the opportunity of a branded beef product for the domestic and international markets is yet untested. During this project, the ‘Blackfella Beef’ name was trademarked for a brand identity.

Figure 1: ‘Blackfella Beef’ project logo influenced by the branding concept developed by Western Kangoulu.



Blackfella Beef

The original impetus for the concept was a strategy developed by WK and WJ to leverage opportunities as the Traditional Owners associated with the Indigenous Land Use Agreement (ILUA) being negotiated with Adani for the Carmichael coal mine project, particularly as it pertains to agriculture. WK and WJ Indigenous groups are further seeking to develop agricultural opportunities attached to other native title negotiations, to build a business structure that supports sustainable communities’ education, workforce development and employment outcomes.

It was proposed that the development of branded products and services around the grazing and farming industry, and bush foods is a natural progression of value add to ILUAs. The focus on beef production systems, specifically with a branded product, supports WK’s desire to reinvest in community development, and provide capability building for the wider red meat industry in regional areas.

The vision of ‘Blackfella Beef’ is to recognise the 60,000 years of connection and interdependence that Aboriginal and Torres Strait Islander people have for the land. Indigenous properties supplying ‘Blackfella Beef’ will manage land based on respect and ensure that the land sustains and provides for the people manage and sustain the land through culture and economy.

The recent history of managing country includes the invaluable contribution of Indigenous stockmen that opened up the outback. The history of the Australian Pastoral Industry includes the voices and images of the Australian Indigenous Stockman as ringers, stockmen, jackaroos, camp cooks, drovers, fencers, shearers and saddlers.

'Blackfellas' have a unique oneness with land and animals and continue to provide their indelible spirit to the Australian Pastoral Industry. 'Blackfella Beef' provides opportunity for the future, with increased economic opportunities including showcasing Indigenous inspired and flavoured Beef to the Australian Menu.

Key to Western Kangoulu's vision is the creation of a sustainable business that is commercially viable, but also provides employment pathways and a business identity for WK and their Indigenous partners. Features of the WK vision for 'Blackfella Beef' include:

- Common Indigenous branding across disparate Indigenous groups/communities across the supply chain.
 - This could be realised as multiple brands across the different elements of the supply chain with an overarching 'Blackfella Beef' brand.
 - There may be scope to have different brand identities in each Australian state tied to the local Indigenous groups.
 - Branding identity may depend on where sufficient aggregation occurs in the supply chain, which may be at production, processing or sales points.
- Strengthening of the supply side of the beef value chain with improved property management.
 - As part of a service offering, there may be replication of business strategies and systems developed by the team.
- Increase in the number of Indigenous social and profit-making enterprises via business development, which may be linked to entrepreneurial opportunities.
- Increase in Indigenous entrepreneurial opportunities aligned with 'Blackfella Beef', for example in the tourism sector and land rehabilitation and management associated with the mining sector.
- Increase in employment for Indigenous people throughout the supply chain
- Improved education of Indigenous people by increasing the number of food, agricultural and logistics scholarships at schools and universities to support the development of the beef value chain

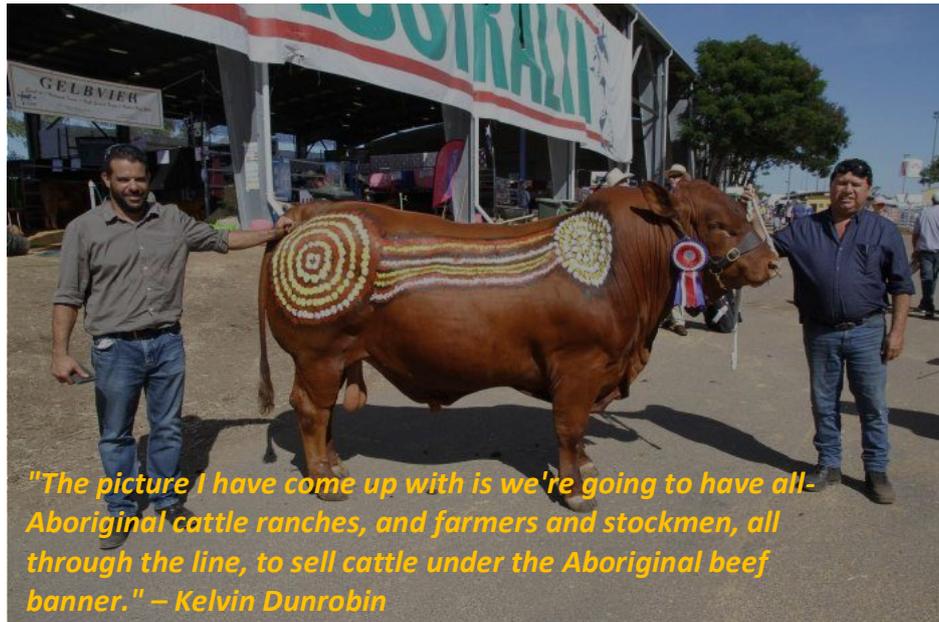


Figure 2: Main features of the Indigenous beef value chain, as envisaged by Kelvin Dunrobin at Western Kangoulu

Indigenous cattle sales are generally commodity focused with sales occurring at both saleyards and to abattoirs. Under the 'Blackfella Beef' concept, Indigenous groups will seek to leverage value added agricultural opportunities. These opportunities can be utilised to build a business structure to improve property management, support development of branded beef products, and refinement of a social enterprise strategy by collaborating with existing Non-Governmental Organisations (NGOs) to support Indigenous communities. An example may be a business model that incorporates reinvestment of a portion of profits into the community from the business activities to support Indigenous health, diet and education.

Such community initiatives could include a respected brand ambassador, and some wonderful examples include Cathy Freeman as an Ambassador for the Australian Indigenous Education Foundation, along with her Cathy Freeman Foundation supporting education pathways for Indigenous students (Cathy Freeman Foundation, 2019), and the Preston Campbell Foundation's 'Presto's Training Café' initiative (Preston Campbell Foundation, 2019). Another pathway could be through partnership or sponsorship, as demonstrated by the partnership between Star Casino and the Quandamooka community on Minjerribah (North Stradbroke Island), to support production of native honey from bees indigenous to the island (Moore, 2017).

Another company that WK identified as being a great exemplar for Indigenous business is 'Something Wild', which is the largest Indigenous-owned food and beverage company in Australia, specialising in high value native products (Something Wild, 2019). Their commitment to respecting and promoting ethical cultural and environmental practices is an ethos that resonated with the team.

Over an 18-month period from May 2018 to August 2019, the team explored a range of options for an Indigenous beef supply chain from property management services, all the way through to developing 'Blackfella Beef' branded shelf-stable products. This report outlines the findings from this investigation, including some initial services developed and tested during the project. We conclude with further recommendations for establishing future Indigenous beef products and services.

1.2 Project Aims and Objectives

The scope of this research aligns with MLA's PIFT program and module for new products, brand and value chain development, where producer groups seek to attain increased ownership of their value chain, and engage directly and effectively with high value markets.

The primary aim of this project is to determine the value proposition for Indigenous branded beef products and services.
 Linked to this, the secondary aim is to establish long-term sustainable businesses through building a value chain to profitable markets.

This project explored the potential for developing Indigenous branded beef products and services by determining possible supply chain strategies, and the associated business models to execute them. The research included understanding the opportunities for new beef products branded as 'Blackfella Beef' and the alignment with Indigenous culture, business development and employment across the whole value chain.



The aims were set out to be achieved through several project objectives (

Figure 3), leading to an overall set of recommendations for proceeding to Stage 2 commercialisation.

Figure 3: Project Objectives

The detailed tasks built into each of the project objectives include:

1. **Assessment** of product desirability, feasibility and viability, including:
 - Market assessment including consumer desirability, industry and competitor analysis and market forces, and testing of minimum viable product/service concepts
 - Collection of Indigenous herd assessment, quality and quantity of supply data
 - Analysis of herd data and assessment of supply chain feasibility
 - Assessment of property management practices and attitudes
 - Assessment of employment and workforce development opportunities through gap analysis
 - Economic viability assessment of several potential business options
2. **Supply chain strategy** to execute scale up
3. **Brand and marketing strategy** for domestic and international use that targets premium value proposition(s) for 'Blackfella Beef'
4. **Assessment of franchise opportunities** across communities for a national value chain and wider adoption (and the business model to secure interest, engagement and financing) – this could include an organisational design for buying and marketing national Indigenous offer and an assured / certified program
5. **Recommendations** on the desirability, feasibility and viability of options for proceeding to Stage 2 Commercialisation stage – including a list of design assumptions to further test and refine.

In order to achieve the objectives, this project addresses three interrelated components of agricultural value chains and food systems and enterprises needed to be examined (

Figure 4).



Figure 4: Components of Indigenous beef agricultural value chains and food systems

The activities required for each of the three components are outlined as:

1. Insights into Indigenous beef property management include consideration of grazing best management practice, and encompasses governance, management of grazing land, herd management, herd health and welfare, herd size, herd quality, potential supply chains, logistics, and management of human resources.
2. Building collaborative and enabling business services, encompassing other food supply chain activities, such as food processing, storage, transport logistics, supporting professional services.
3. Creating 'pathways' and standards with Indigenous companies and partners to ensure domestic and international customers receive consistent, reliable and high quality Indigenous branded beef products and services

In considering these three components, it is important to examine the current capacity in Indigenous communities to manage additional beef enterprises, and understand the nuances of supply chain and market access for a branded beef product. This can be investigated via a gap analysis before establishing the Indigenous supply chain (Figure 5), which may entail identifying success metrics such as profits, number of successful Indigenous enterprises within the supply chain, increase in Indigenous employment, positive impacts on Indigenous community health and education, and additional other aspects.

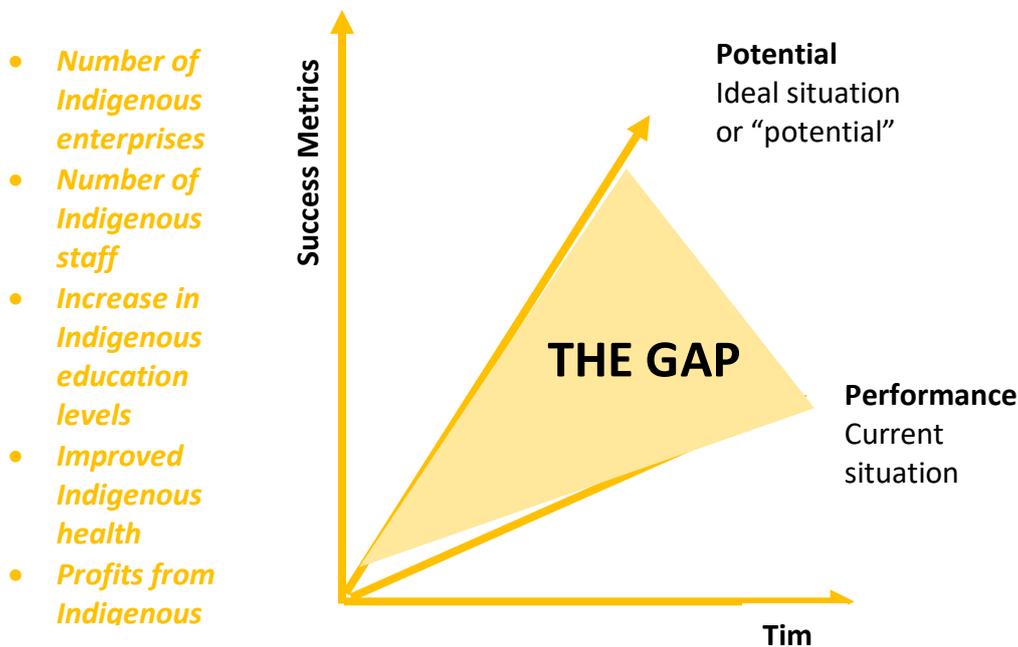


Figure 5: Gap analysis to bridge the gap from current Indigenous supply chain performance to ideal Indigenous supply chain potential.

2 Project Framework and Methodology

The main goal of this project was to determine the value proposition for Indigenous branded beef products and services, and the supply chain strategy and business model to execute it. To achieve this goal, it was necessary to understand the range of value add options and the options for development of the 'Blackfella Beef' brand. Underpinning these investigations, it was important to ensure that the options upheld the values of the Western Kangoulu owners who have the principal interest in developing the beef brand.

2.1 Framework

The project required a range of approaches as 'Blackfella Beef' initially had a range of goals to contribute to development of an Indigenous agricultural value chain for beef (Figure 6).



Figure 6: Western Kangoulu group's goals for the Blackfella Beef project

We used a mixed methodology to capture the environment, which included utilising frameworks associated with systems thinking (ST), design thinking (DT) and entrepreneurial thinking (ET).

Systems Thinking

A key tenet of systems research is interdependence. Systems research and systems thinking seeks to define how different components of a system, e.g. an Indigenous beef supply chain, interact and work within a much larger system, in this case the beef industry. The proposed Indigenous value chain is multi-faceted; it is highly variable and has numerous stakeholders.

Design Thinking

A core tenet of design thinking is that it is people-centred. The focus is often on idea generation to solve customer problems (pains) or identify customer opportunities (gains). Design thinking is often multidisciplinary, relying on collaboration between different parties. This allows a more robust design to be developed for a product, supply chain or service, as issues can be viewed from multiple perspectives and overcome more easily. The design thinking approach provides a market focused methodology to understand what value each external stakeholder attributes to the brand, while the systems based approach helps us to understand the environment within which the brand owners operate.

Entrepreneurial thinking

Entrepreneurial thinking often focuses on combining creativity with calculated risk to capitalise on suitable opportunities. The focus is often on value creation but also includes consideration of collaboration, resilience of the enterprises and is discovery-driven. Due to the discovery driven nature, this often leads to continuous innovation to develop several different business opportunities. This approach could be valuable in setting up an Indigenous beef industry.

A robust approach may involve combining ST, DT and ET to investigate desirability, feasibility and viability of an Indigenous beef supply chain as well as aid in development of supply chain strategy, product and service strategy and brand strategy (Figure 7). We have employed this approach in this project.

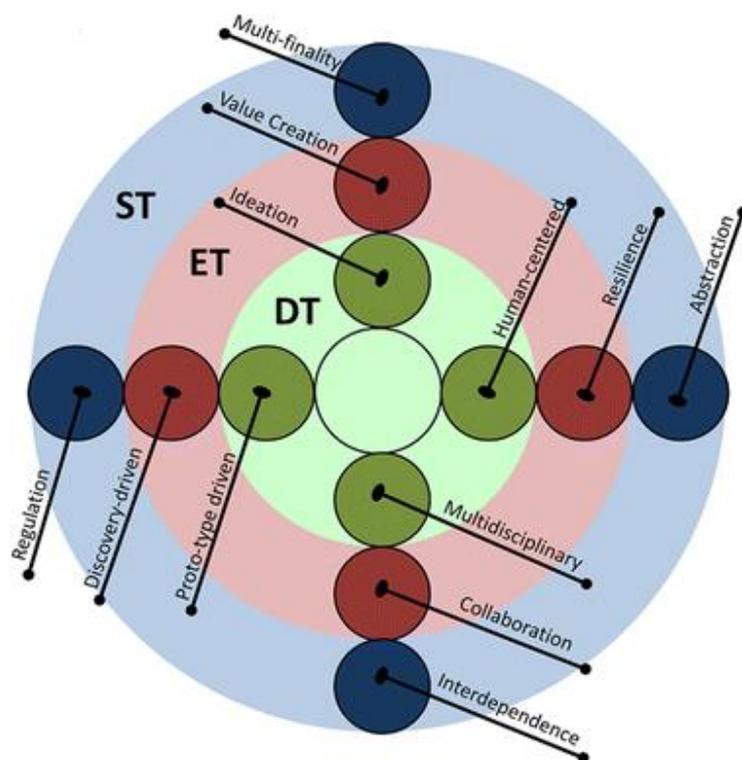


Figure 7: Concentricity of Design Thinking (DT), Entrepreneurial Thinking (ET), and Systems Thinking (ST). From Patel and Mehta (2017).

Several factors will influence how a Blackfella beef value chain may work and identifying stakeholders in both the core and extended value chains is of importance (Figure 8).



Figure 8: Potential system influences on Indigenous beef value chain

The value of ‘Blackfella Beef’ brands and their attractiveness is defined by internal and external stakeholders who are ‘investors in the products’, and potentially part of the value chain, for example:

- Indigenous producers (growing quality and consistency of beef cattle).
- Customers (investment attractiveness)
- Consumers, national or international (purchase end products - taste, presentation, and packaging)

In the Indigenous beef value chain framework, we applied elements of DT, ST and ET while we considered the core value chain, the extended value chain and some features of the national enabling environment within Australia.

2.2 Methodology

The team, including USQ, 'Blackfella Beef' and MLA, initially defined the core Indigenous beef value chain, and investigations during this project determined the components of the extended Indigenous beef value chain, as well as the national enabling environment. This was done through a combination of primary and secondary research.

2.2.1 The Research 'samples'

The initial focus was on investigation and development of Queensland-based, fresh, local, short supply chains, supporting local Indigenous farmers. The initial strategy focused on:

- a) Building the brand as a chilled beef product in Queensland
- b) Developing a range of shelf stable beef products for both domestic and international markets
- c) Development and deployment of 'Blackfella Beef' services such as property and herd management for Indigenous properties that supply 'Blackfella Beef', and workforce development of Indigenous youth.

Stakeholders across the beef supply chain were identified from producers to retailers. Once more potentially viable beef product and service options were identified, and potential customers had been validated and prioritised, the team undertook a more detailed analysis of each product option, the supply chain and the potential properties.

2.2.2 Focus Areas

Determining the best mix of business development opportunities for Western Kangoulu's 'Blackfella Beef' concept involved assessing the market desirability of potential products and/or services, how feasible it was to produce or provide these products and/or services, and investigations into the economic viability of these activities. Decisions on which stakeholders to partner with in the processing sector, and which abattoirs could be best positioned to process Indigenously farmed cattle were also investigated.

Desirability can be examined through market assessments, including how desirable consumers may find Indigenous beef products and the branding concept. This may be achieved by testing minimum viable product/service concepts and value proposition(s). Not to be forgotten are the potential market affects due to competitor products, as well as other market forces, which may be assessed through an industry analysis.

Feasibility may be tied to capability of the potential Indigenous supply chain. As outlined in the project objectives, key characteristics of such a supply chain include herd assessment (including quality and quantity of supply), governance and property management capabilities. To initiate a robust supply chain it is importance to examine the capacity in the Indigenous communities to manage additional beef enterprises, the natural and human resources

available to support such an enterprise, and the potential logistics and supply chain paths for Indigenous beef products. A core part of product feasibility will be a guarantee of steady supply to meet market demand. At this stage there was no inherent new technology platforms being considered for the new products range.

Viability can mostly be examined by an economic viability assessment of different product and supply chain options, relating to the product feasibility investigation. There may be many opportunities, but it is important to first focus on those that are financially viable. In this manner, a schedule of rollout of Indigenous beef products and services can be determined by combining the investigations focusing on product desirability, feasibility and viability. This also considered the supply/demand mix in terms of what (triple bottom line) value can be captured for the team and what effort is required.

2.2.3 Primary Research

The team, including USQ, WK 'Blackfella Beef' and MLA, explored value add propositions using semi-structured interviews and workshops, as well as student discoveries. Interviews were held with many different stakeholders that may be involved in an Indigenous beef value chain or extended value chain. The number of entities interviewed was >80 and the number interviews conducted were >100 (Figure 9).

Interviews

During interviews, respondents were asked to share their insights and attitudes to 'Blackfella Beef' and Indigenous products. Both quantitative and qualitative data was collected to understand their networks, production / processing capacity and logistics. Respondents and businesses have been de-identified to protect commercial-in-confidence information.

During the process of examining products and supply chains, potential customers were identified in the military, mining, and tourism sectors for both fresh and shelf-stable products and associated services. Given the interest in developing 'the 'Blackfella Beef' brand' on higher value packaged items, and the variable supply and quality of currently available 'Blackfella Beef' cattle, more extensive research was conducted into 'Blackfella Beef' services focused on property and herd management, as well as packaged shelf stable products.

Workshops

A series of workshops were convened during the project to discuss the emerging ideas and to reflect on the interviews including either the research team alone, or inclusion of a larger group of stakeholders from the Rockhampton region. The purpose of these workshops was to identify key stakeholders and the type and level of consumer demand.

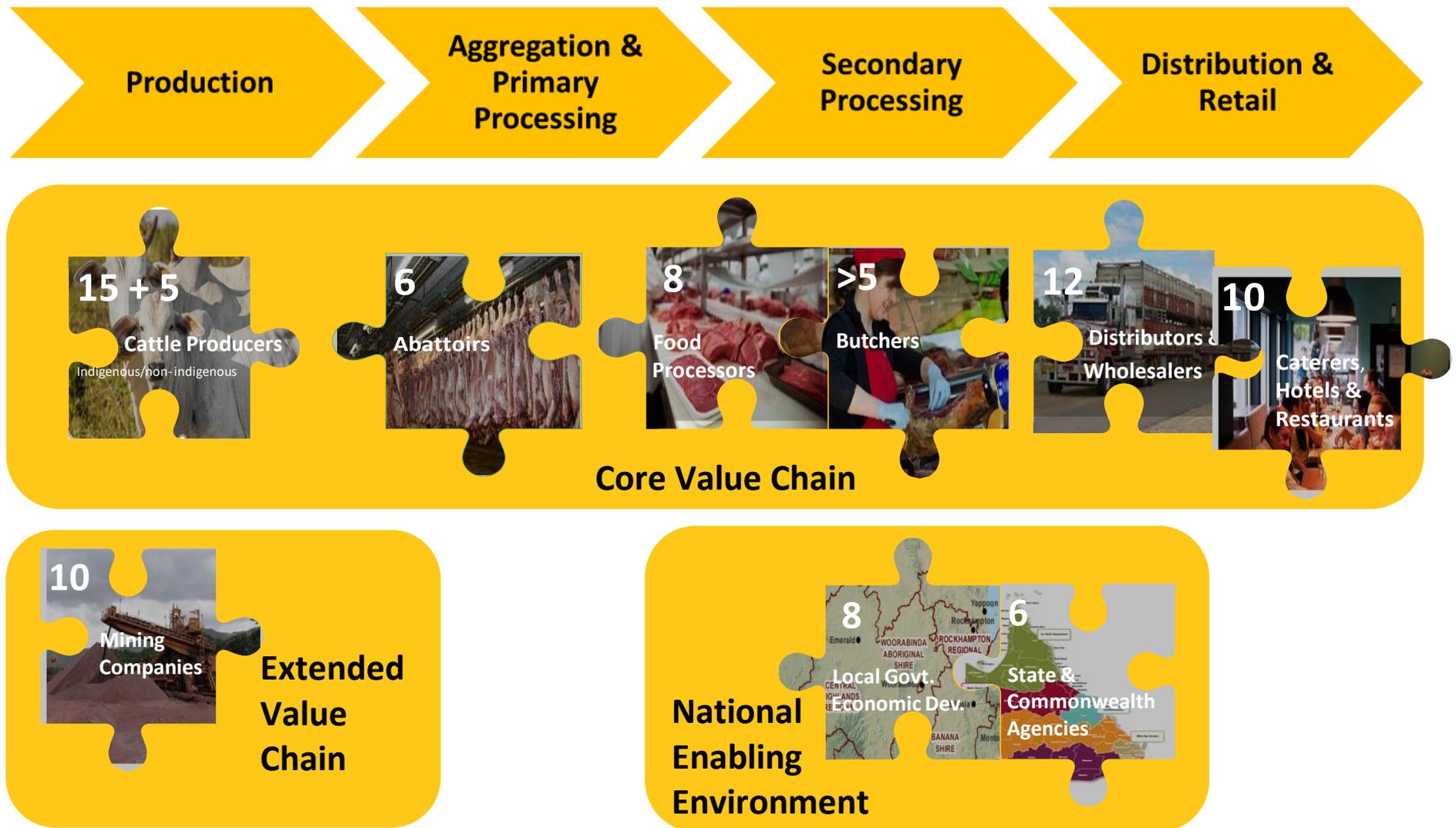


Figure 9: Number of different stakeholder entities interviewed

The workshops enabled the team to develop further understanding of the process of developing the 'Blackfella Beef' brand and the beef supply chain requirements, including cattle numbers and locations, supply chain partners and potential customers and consumer markets. As part of these activities, business model canvases were utilised as design thinking tools to explore each product and service option for development.

Student discoveries

Students from USQ Marketing courses interviewed tourists in Cairns and the Gold Coast / Minjerribah (North Stradbroke Island). There were no structured questions and students were asked to demonstrate uniqueness and creativity in understanding the Indigenous beef market.

Students from USQ Food Science courses also assisted by providing their views on 'beef protein bars and broths'. To test the products' appeal and price points, we carried out two focus group sessions with first year Food Science students at the University of Southern Queensland. Session 1 encompassed introducing the students to the project and the types of products we were looking at to incorporate beef and bushfoods in food products. Session 2 sought feedback from the students about characteristics of the samples that they tried.

2.2.4 Secondary Research

Literature and desktop research was also undertaken to identify beef products and Indigenous food production opportunities as well as investigate stakeholders for their potential to working with Indigenous beef industries and service providers. This involved exploring both national and international markets for both beef products and agricultural management opportunities.

Regarding products, the focus was specifically on Indigenous beef products that have emerged into markets within this decade. The costs involved in the supply chain for such products were developed through a combination of primary research and secondary research as some pricing was difficult to obtain purely through desktop research.

Discussions with potential stakeholders have been ongoing about how to deliver on the goals of 'Blackfella Beef', and have focused on both the delivery of land management services (to further develop the cattle supply chain from Indigenous properties), and the development of the potential range of Blackfella beef products. Identification of opportunities that may create 'wins' for 'Blackfella Beef', its value chain, its brand and its communities was of prime importance.

3 Assessment of product desirability

Our team examined desirability throughout the entire project timeframe and identified opportunities where the stakeholders seemed to have the most appetite for ‘Blackfella Beef’ products and services or working with ‘Blackfella Beef’. A key aspect of assessing product and service desirability is determining how amenable potential collaborators, customers and consumers are to using ‘Blackfella Beef’ products and services.

Typically, desirability is examined once a fully tangible product or service is fully developed, however there is a lot of value in determining desirability before establishing a full ‘Blackfella Beef’ value chain and the specific physical products and services. Quick testing of concepts using a design thinking approach throughout development is a more modern approach, and involves customer and consumer consultation at each stage, rather than staying just in-house in the early stages (Figure 10).

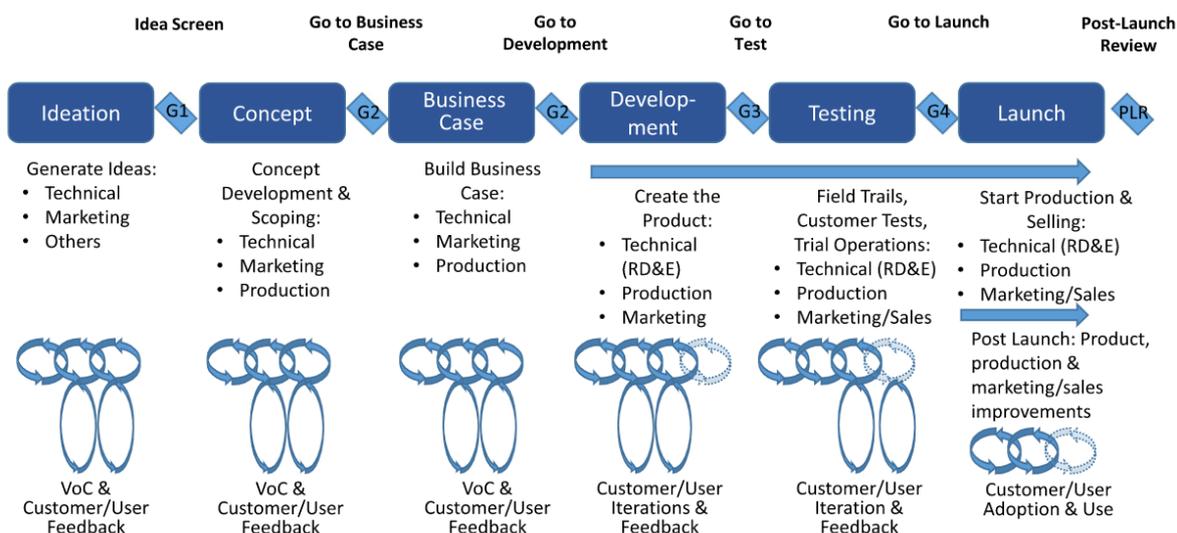


Figure 10: A hybrid model for manufactured new product development incorporating Agile and Stage-Gate approaches. From Cooper and Sommer (2016)

This can help enable a product and service ‘pull’ demand, rather than trying to push products and services into the market without knowing how they might be received. Assessing desirability is one of the first key aspects that we looked at within this project.

Discussions with a range of value chain participants and consumers consistently demonstrated that Indigenous branded products have a strong appeal – and are considered a novelty, different from other current Australian offerings. Individual consumers have indicated that they will actively seek out Indigenous products and services, and may preferentially purchase them, but they are disappointed by the lack of options. Competition in the Indigenous category is limited, but competition in the broader beef market is extensive.

3.1 Indigenous procurement policies

One indication that organisations may be interested in ‘Blackfella Beef’ is if they have an Indigenous procurement policy or plan. Indigenous procurement policies have features that encourage purchasing products and services from Indigenous businesses. To be considered eligible as an Indigenous business there are certain criteria that need to be met. Businesses can be assessed against these criteria by Supply Nation and if successful, be listed as an Indigenous supplier. It would be advantageous for ‘Blackfella Beef’ to undergo assessment.

3.1.1 Supply Nation

“Supply Nation provides Australia’s leading database of verified Indigenous businesses”. Supply Nation receives daily updates from ASIC regarding any changes to business ownership, which allows them to conduct real-time audits. This reinforces the integrity and accuracy of Indigenous businesses listed on Indigenous Business Direct. Once an Indigenous business has applied to register their business on Indigenous Business Direct, Supply Nation (2019) take several steps to verify the eligibility of the business.



Verification of eligibility

1. Assess the online application for accuracy
1. Check ABN/ASIC for company name and current registration
2. Check ownership document to identify owners – ensuring that at least 50% of the business is Aboriginal and/or Torres Strait Islander owned
3. Verify owners and Confirmation of Aboriginality documents
4. Conduct annual / spot check audits to ensure the business still meets the criteria.

Review for Certification Eligibility

1. Verify that Aboriginal and / or Torres Strait Islander people own at least 51% of the business by checking the provided Confirmation of Aboriginality documents against share structures registered with ASIC and / or other documentation (such as partnership documents or trust deeds)
2. Verify that the business is managed and controlled by Aboriginal and / or Torres Strait Islander people by:
 - a. Reviewing information provided in the application form
 - b. Reviewing governance documents
 - c. Completing a certification interview/site visit.

During this project, many organisations in Queensland were identified that have an Indigenous Procurement Policy (IPP) and/or an Indigenous food focus and include hotels, catering services and other entities (Table 1).

Table 1: Businesses and organisations in Queensland with Indigenous procurement plans or Indigenous food focus

Hotels	Catering Services with Indigenous catering or procurement plans	QLD organisations with Indigenous food procurement plans
<ul style="list-style-type: none"> • Mercure, Brisbane • Ibis, Brisbane • Mercure, Cairns Harbourside • Novotel, Cairns Oasis Resort • Pullman Cairns International • Cairns Harbour Lights • Mossman Gorge Centre 	<ul style="list-style-type: none"> • Figjam Catering supplies and services (Ipswich) • Native Culinary Ecstasy (Nerang) • First Food company Australia (Yatala) • Indigenous Beverages (Mansfield) • Barbra Drummond Meeting Catering Services (Manunda) • The trustee for Robert Henderson Art Trust meeting catering services and prepared meals (Sth Brisbane) • Bidfoods (various, including Toowoomba, Headquarters is in Bondi, NSW) – they supply pubs, hotels, airlines, cruise ships etc. 	<ul style="list-style-type: none"> • University of Southern Qld • Griffith University • Central Qld University • University of the Sunshine Coast • Gold Coast Titans • Brisbane Broncos • Qld Rugby Union • AFL Queensland • Gold Coast Suns • Cowboy House (Townsville) • Brisbane Airport Corporation, ground handling and catering division

This project identified that there were several core value chain opportunities that could feed into the tourism market, specifically within Northern Queensland, where many of the ‘Blackfella Beef’ properties would be located.

Potential core value chain opportunities for the tourism market: These could include supply of ‘Blackfella Beef’ meat products for supply into tourist resorts, hotels and restaurants. Premium shelf-stable products are an opportunity suitable for deploying in hotel and Indigenous tourist attraction gift shops, airport duty-free shops and via online sales

As well as organisations within Queensland that specifically have an IPP or Indigenous food focus, there are also national organisations, such as the Australian Defence Force and Qantas that also endeavour to include Indigenous employment, products or services. These opportunities may be facilitated via Supply Nation and their vetting processes.

3.1.2 Australian Defence Force

The Australian Defence Force, being part of a government organisation, also has an IPP. The purpose of the policy is to stimulate Indigenous entrepreneurship and business development, and to provide Indigenous enterprises with more opportunities to participate in the economy (Australian Department of Defence, 2015). Australian Department of Defence (2015) specifically defines an Indigenous Enterprise as any business that is 50% or more Indigenous owned, which aligns with Supply Nation requirements.

The IPP specifies a number of ways in which the requirements of the IPP can be met. One of those ways includes the 'Mandatory set-aside for remote contracts' where it is stated that "Project Officers must, before making an approach to market, first look to Indigenous businesses for all contracts in remote areas regardless of value, using Supply Nation" (Australian Department of Defence, 2015).

Given that the Australian Department of Defence encourages Indigenous procurement, there are some potential opportunities for supply of 'Blackfella Beef' products. To enable supply 'Blackfella Beef' would need to collaborate with current suppliers to aid the entry of their products in the supply chain. The main types of products that include beef are items for 'fresh feeding' in mess halls and as protein sources in products for Combat Ration Packs (CRPs).

Potential core value chain opportunities for the military market: These could include supply of 'Blackfella Beef' meat products for 'fresh feeding' or supply of shelf-stable beef-based products for Combat Ration Packs (CRPs). To become a supplier 'Blackfella Beef' would need to liaise with the current catering services suppliers and CRP packers.

3.1.3 Qantas and Dreamtime Tuka

Through membership of Supply Nation, Qantas has articulated a commitment to increasing their procurement of goods and service from Aboriginal and Torres Strait Islander-owned and operated businesses (Qantas, No Date). As mentioned earlier, it would be most valuable for 'Blackfella Beef' to receive Supply Nation certification.

Qantas head of product and service delivery Helen Gray, said the airline is always looking for unique products to serve its customers and is especially interested in sourcing products from Indigenous suppliers (The Advertiser, 2016).

"Supply Nation provides a direct business-to-business purchasing link between corporate Australia, government agencies and Aboriginal and Torres Strait Islander-owned businesses. Through our membership of Supply Nation, we are committed to increasing our procurement

of goods and service from Aboriginal and Torres Strait Islander-owned and operated businesses” (Qantas, No Date).

The following extracts were taken from the Qantas Reconciliation Action Plan and demonstrate their commitment to supporting Indigenous businesses.



Figure 11: Excerpts from Qantas’ Reconciliation Plan outlining their commitment to supporting Indigenous enterprises.

Dreamtime Tuka are the first 100% Indigenous Owned business to supply Qantas with food or beverage. Dreamtime Tuka is founded, owned and operated by former police officer, Herb Smith, a Wiradjuji man. In 2014, Qantas procurement placed an initial order of 120,000 slices over three months (Power, 2019). Dreamtime Tuka currently supplies Qantas with 450,000 lemon myrtle coconut slices annually. Dreamtime Tuka also supplies NSW State Rail and all Qantas regional and domestic flights. The company has entered into a joint venture with a Dubbo company Early Rise Bakery (Power, 2019).

“By including Australian bush flavours, such as lemon myrtle, cinnamon myrtle and wattle seed in my slices and biscuits I’m giving people a distinctive Australian customer experience, and I’m really pleased a company like Qantas wants to promote that,” Mr Smith, from the NSW town of Wellington, said (The Advertiser, 2016).



Figure 12: Dreamtime Tuka snacks as supplied to Qantas inflight catering services (left) and Dreamtime Tuka lemon myrtle coconut slice.

Potential core value chain opportunities for the airline market: There are opportunities to include uniquely Indigenous snack products, potentially beef-based, on domestic and international flights, typically as shelf-stable products. As an extended value opportunity sales in duty-free gift shops may also be feasible.

Details of Qantas and Australian Defence Force procurement policies are discussed in Appendix A to help outline how 'Blackfella Beef' could potentially become a supplier to these organisations.

3.2 Market Assessment

We now further discuss the market segments examined in this project. To support market assessment we also detail customer discoveries including consumer desirability, industry and competitor analysis, examination of some market forces, and some testing of minimum viable product/service concepts. The market segment analysis looks specifically at the mining, military and tourism markets, as these were identified during this project as potentially more easily accessible based on supply chain location and industry interest and appetite.

3.2.1 The mining market

The mining market in Australia consists of hard commodities such as aluminium, iron and steel, precious metals, coal and base metal markets (e.g. lead, zinc, copper, nickel and tin). The coal segment of the industry represents almost half the value of the market (n= 47.9%; Market line 2018, p. 11). Australia's richest coal deposits are located in Queensland's Bowen Basin (Department of Natural Resources and Mines Qld 2017), which is a land that the Western Kangoulu (WK) peoples have an affinity with.

Mining companies are required by Government to purchase offset lands to counter the environmental damage caused and these offset lands are sold to and/or managed by Indigenous groups in Queensland due to their expertise in land practices (Figure 13).

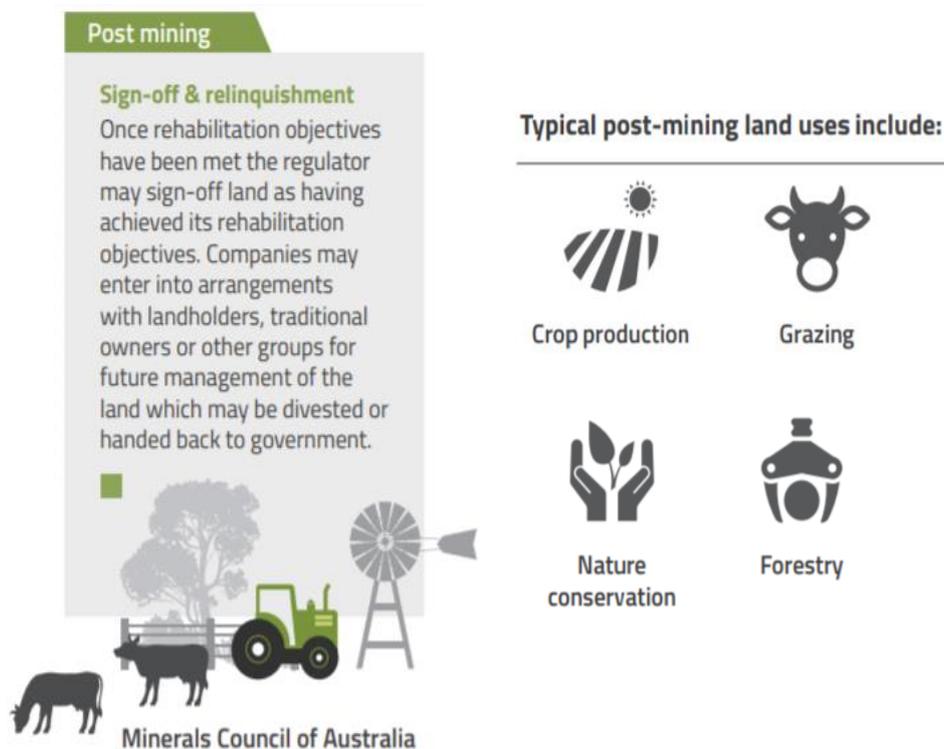


Figure 13: Typical post mining activity as outlined by the Minerals Council of Australia, 2019

Negotiating land offsets with mining companies in the Bowen and Galilee basins presents opportunities for the Western Kangoulu (WK) group, to access land and funding for property management practices. There are several mining projects in the area (see Appendix B), and these represent opportunities for WK to negotiate with some of the mining companies in terms of offset land management opportunities and red meat supply ('Blackfella Beef'). This is particularly advantageous as the Western Kangoulu peoples are located in these basins (Figure 14).

New regulations mean that mining companies can no longer discriminate against local workers in the area, in preference for fly-in-fly-out workers (Fabri 2018). This will enable more workforce development programs and more apprenticeship opportunities for local and Indigenous peoples as coal investment increases in the Bowen and Galilee basins. The demand for miners, truck/dozer drivers, labourers, trade assistants, cleaners and kitchen staff will grow. Typically, the salaries of the mine employees include food and accommodation.



Figure 14: From https://www.glencore.com.au/en/publications/factsheets/FactsheetsGCAA/20170504-GCAA_Fact%20Sheet%20LP_final.pdf. The trees represent Glencore’s agricultural activity while the pick and axe symbols represent mining activity. Of note are the Oaky Creek activities, which are on Western Kangoulu land, and the Clermont activities which are on Wangan Jagalingou land

There is also potential to explore the possibility of supplying red meat (‘Blackfella Beef’) to the various mining operations. Interviews with a mining company opened up discussions on developing a broader relationship than just the purchasing of beef. This mining company has substantial landholdings that are not mined, and instead they are producing cattle. They have a need for seasonal cattle property labour, conservation practices post mining, and labour in the mining operations. They saw ‘Blackfella Beef’ as an opportunity to develop a long term ‘win-win’, and that they could potentially lease ‘Blackfella Beef’ land to help them grow their cattle operations. These discussions with mining companies also provided introductions to catering suppliers, who supply a range of clients including aged care, government departments and the tourism sector.

Potential extended value opportunities for the mining market: There are opportunities to provide Indigenous property management services and staff, as well as meat products to mining companies. This opportunity was identified during this project and particular companies showed great interest.

3.2.2 The military market

The military market could present a very interesting option for ‘Blackfella Beef’. At less than 60,000 the Australian active troop numbers are small when compared to China’s over 2 million active troops (Table 2). However, also of note is that the Singapore Military has a base in Rockhampton which could provide an extra military market segment.

Table 2: Size of military in a range of Asia Pacific countries. Sourced from IISS, 2018

Country	Active Military	Reserve Military	Paramilitary	Total
Australia	57,800	21,100	0	78,900
Cambodia	124,300	0	67,000	191,300
China	2,035,000	510,000	660,000	3,205,000
Indonesia	395,500	400,000	280,000	1,075,500
Laos	29,100	0	100,000	129,100
Malaysia	109,000	296,300	24,600	429,900
Myanmar	406,000	0	107,250	513,250
Philippines	125,000	181,000	77,000	346,000
Singapore	72,500	312,500	19,900	404,900
Thailand	360,850	245,000	93,700	699,550
Vietnam	482,000	5,000,000	40,000	5,522,000

The Australian Defence Force (ADF), as a government department have a procurement plan for Indigenous suppliers, which would make them a potential partner or customer for ‘Blackfella Beef’ products (Australian Department of Defence, 2015). There are 2-3 fresh food catering suppliers for ADF that were identified and interviewed during this project. In order to be a supplier, ‘Blackfella Beef’ may need to enter the supply chain through these entities and some discussions with the suppliers did focus on how this could happen.

Extended shelf life products are another opportunity and have the advantage of not being limited by cold transport and storage. Snacks are an ideal extended shelf life product that could be derived from Indigenous beef to be used in Australian Defence Force (ADF) combat ration packs (CRPs) which could use up to 1 tonne of meat annually. The ADF supplies ration packs to service their troops that include a range of items including main meals usually in retort pouches, freeze-dried meals, meat bars, sweet products and other items.

Discussions have indicated that there is a potential opportunity to include steak / protein bars into ration pack offerings. Other market segments for shelf-stable red meat products that we have identified also include Indigenous and remote communities within Australia and refugee camps (68.5 million people in 2018), that do not have access to fresh meat.

Potential extended value opportunities for the military market: Shelf-stable nutritious beef snacks not only have applications in the military market, but also in Indigenous communities and refugee camps. This can help increase positive health outcomes for these groups

3.2.3 The tourism market

More than 24 million domestic and international overnight visitors come to Queensland each year, so it is a significantly sized market, potentially ripe with opportunity. The Tourism market directly and indirectly employs 225,000 Queenslanders. It also contributes \$12.6 billion directly to the Queensland economy, and \$12.4 billion indirectly, making the total contribution \$25 billion, or 7.9% of total Queensland GSP (Business Queensland 2018).

In Queensland, the Indigenous tourism market is predominately in Mossman, Port Douglas, Cairns, and Tully in the North, and Brisbane/Gold Coast in the south. Cairns is the major airport and destination for tourists seeking an Indigenous experience (TRA 2018). Looking at the tourist profile of Cairns, the average stay is seven (7) days for international tourists and four (4) nights for domestic tourists. Both groups spend similar amounts of money per trip (\$1106 and \$1144 respectively).

3.2.3.1 Indigenous tourism in Queensland

There are several Indigenous-focused tourist operators in North Queensland and around Australia, including Adventure North Australia Daintree Dreaming tours , Ingan Tours, Janbal Gallery, Rainforestation Nature Park – Pamagirri Aboriginal experience, Tjapukai Aboriginal Cultural Park, Voyages Indigenous Tourism Australia – Mossman Gorge Centre and Walkabout Cultural Adventures.

Cultural centres in particular, have good alignment with the ‘Blackfella Beef’ ethos and give back to Indigenous communities through procurement, workforce development, employment, and ownership. There are several located in Queensland and the Northern Territory (Table 3), which offer a range of experiences for tourists and support local Indigenous communities. The largest is Tjakupai Aboriginal Cultural Park with 69,000 guests per year.

There are many more centres available of which 39 offer an Indigenous experience in Australia, and 23 offer meals and Indigenous workforce development. 14 of the centres are Indigenous owned.

Most international visitors to Cairns and the Great Barrier Reef during the period 2013 to 2016 came from China (175,000 visitors), Japan (93,000 visitors) and the USA (83,000 visitors). Chinese and Japanese tourists rank Queensland as their first choice of the Australian states to visit, whereas US visitors rank Queensland as their number two choice. The Gold Coast and Cairns are the most popular destinations (Tourism and Events Queensland 2018).

The top five factors for why visitors from these countries come to Queensland varied (Table 4) but food, wine and cuisine consistently appeared across all three groups.

Tourism Australia have an Indigenous Tourism Working Group (ITWG), which is focused on delivering the facilitation of increased Indigenous tourism employment, building the capacity of Indigenous tourism businesses, and enhancing the tourism product offerings.

Table 3: Details of some of the cultural parks and centres in Far North QLD and NT

Name	Description
Tjakupai Aboriginal Cultural Park – FNQ	<ul style="list-style-type: none"> • restaurant, cultural village, retail gallery and extended tours • Australia’s largest Indigenous employers in the tourism industry • Has contributed \$35million to the local Indigenous community • ECO Certification • Chinese and Japanese tourism focus
Mossman Gorge Centre - (Indigenous Owned) – FNQ	<ul style="list-style-type: none"> • Restaurant, attractions and short tours • 90% of staff are Indigenous • Six traineeships for local Indigenous per year • 30 traineeships for Indigenous in remote communities per year • ECO Certification and Green Travel Leader status • ROC – Respecting our Culture Certification
Kakadu Tourism - (Indigenous Owned) – NT	<ul style="list-style-type: none"> • Restaurant, short tours and cruises, accommodation • Largest provider of catering to tourist market in Kakadu • Provider of Indigenous workforce development programs • ECO Certification • Chinese tourism focus
Voyages Indigenous Tourism Australia - (Indigenous Owned) – NT	<ul style="list-style-type: none"> • Restaurant, short tours and accommodation • Train Indigenous staff so they can gain employment anywhere in Australia • All profits go back into Indigenous workforce development program • Only work with suppliers aligned with their own environmental, cultural and social values
Nitmuluk Tours – (100% Indigenous owned) – NT	<ul style="list-style-type: none"> • Restaurant, tours, cruises and accommodation through Cicada Lodge, which is a 100% Indigenous owned property • Committed to workforce development of local Indigenous community • ECO Certification • ROC Certification • Chinese tourism focus

Table 4: Top five reasons why tourists visit Queensland from China, Japan and the USA

China	Japan	USA
1. World-class natural beauty and wildlife (59%)	1. A safe and secure destination (63%)	1. A safe and secure destination (54%)
2. Safe and secure destination (41%)	2. Good food, wine, local cuisine (58%)	2. World-class natural beauty and wildlife (45%)
3. Good food, wine, local cuisine and produce (38%)	3. World-class natural beauty and wildlife (42%)	3. A destination that offers value for money (38%)
4. World-class coastlines, beaches and marine wildlife (36%)	4. Destination that offers value for money (40%)	4. Good food, wine, local cuisine and produce (38%)
5. Romantic destination (31%)	5. Rich history and heritage (37%)	5. Friendly and open citizens, local hospitality (35%)

Potential extended value chain opportunities for the tourism market:

There are opportunities for Western Kangoulu to consider how to position ‘Blackfella Beef’ as a supplier to the Indigenous restaurants, cafes and tourist operators that service Indigenous tourism. There are also opportunities to consider beef station visits and barbecues, and Indigenous cultural awareness as tourism opportunities that could potentially come under the ‘Blackfella Beef’ brand.

3.2.3.2 USQ Marketing student investigations

USQ marketing students undertook interviews in two locations, Minjerribah (North Stradbroke Island) and Cairns. Due to the size of tourist groups, Chinese tourists represented a major part of the analysis with a small sample of Japanese tourists. There were no significant differences between the destination observations. The following comments and data were noted by USQ students.

Minjerribah (North Stradbroke Island)

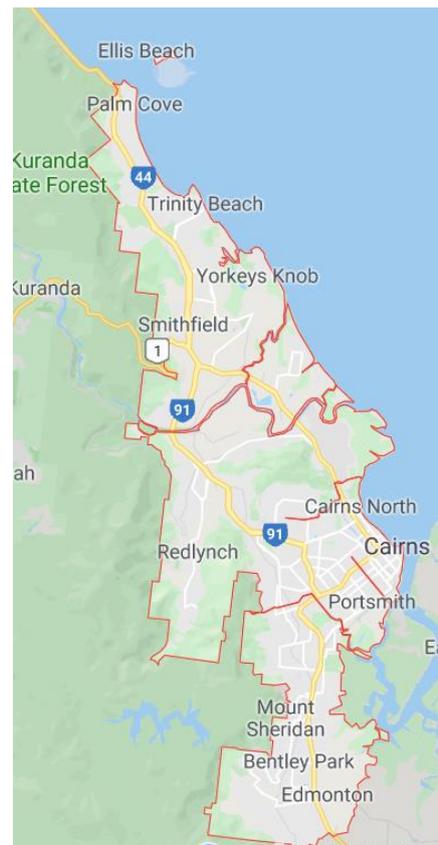
In July 2011, Native title was granted to the Quandamooka people over the majority of North Stradbroke Island or Minjerribah. Minjerribah is undergoing an economic transition from sand mining (to cease in 2019) to exploring an increased interest in cultural and eco-tourism opportunities. Mining accounted for 18% of the employment and the unemployment rate is already high (four times the national rate at 24%) so the closure of the mine will have an impact. 20% of residents are currently employed in the tourism sector.

The Toonhah Harbour redevelopment project, which is a key component of the revitalisation of Minjerribah, as this harbour is a key access point, is dependent upon securing private investment of approximately \$1.3 Billion. Minjerribah is well positioned to focus on Indigenous tourism and ‘Blackfella Beef’ could be well positioned to supply the hotels. 4.4% of Stradbroke Island visitors come from the Brisbane and 47% of visitors to Minjerribah are repeat visitors. The largest demographic of visitors to Minjerribah are 45-59 years old with the number of Chinese visitors increased by 70.4% each year since 2010. Day trippers and overnight guests currently spend \$40-\$50 on food and drinks per day; \$16 - \$30 per day on shopping and \$7 - \$17 per day on activities and this is expected to grow as tourism experiences and business on the Island grow.



Cairns

Cairns is a local support base for the mining sector development of PNG, Far North and Cape York regions. HMAS Cairns has 900 Navy and civilian personnel and is the homeport for 14 vessels. The Navy has accommodation at Northern Heritage and Las Palmas resort style accommodation in Cairns, and a minimum of 3% of defence procurement must be sourced through Indigenous enterprises.



Cairns also has direct access to and from China, South Korea, Japan, Singapore, Philippines and Indonesia and 38% of Queensland’s international tourists arrive via Cairns airport. The average international visitor stay is ~7 nights.

Chinese tourists are the largest group of international visitors with a market share of 6.4% (175,000) in Cairns and these numbers are expected to grow.

Japanese tourists are the second largest group 3.4% market share (93,000), while US visitors are the third largest with market share of 3.1% (83,000).

Chinese tourism insights

There are currently 1.2 million Chinese tourists a year, which is expected to climb to 2.9 million Chinese visitors to Australia per year. They are the largest tourist group in Queensland and Australian Indigenous cultural experiences rated in their top ten Australian attractions.

Chinese tourists buy through Daigou, which means buying on behalf of someone else. Daigou purchase products in supermarkets, pharmacies or specialist stores, package them up and send them to their customer in exchange for a commission on the purchase.

Daigou is possible through WeChat and WeChat Pay. Daigou can become a bridge for 'Blackfella Beef' to gain access to the Chinese market. Over the last few years, the way in which Daigou operates has become a little more sophisticated beyond just personal shoppers (Figure 15).



Figure 15: Example of a Daigou Marketplace platform. From Rawson Lewis, 2019.

Chinese Millennials account for 30% of all global international visitors and are ideal customers for Indigenous food products. They are typically aged 25-35 years, are curious and open-minded, and while they prefer Chinese food, they are willing to try authentic local cuisine. They are often interested in out of the box cultural experiences and like to mix with the locals and seek independent hotels with local flavours. They like to buy Indigenous products.

During their travels, Chinese tourists often want to understand native or cultural history and engage in cultural activities, as well as have unique and brag-worthy experiences. They are interested in tourism activities such as an afternoon package of Indigenous, cultural and dining experiences and also like to eat Indigenous foods in a restaurant setting at the hotel

where they are staying. One other aspect of interest is cooking classes to show how to cook using a meal kit that they would then would consider using while on holidays, or when at home from the internet.

Chinese tourists often want to take home souvenirs and can organise for them to be sent to their hotel room, or to be waiting at the airport for them to collect departure. Attractive foods include meat infused with: Spice packs 30g with bush tomato, mountain pepper, forest berry, lemon myrtle, lemon myrtle native pepper, peppercorn, aniseed myrtle and Spice packs with Indigenous and Chinese herbs. Chinese visitors want the link to product to buy at home (at Minjerribah). They are also interested in video cooking instructions if buying 'Blackfella Beef' from China.

Several social media platforms could be used by 'Blackfella Beef' to reach the Chinese tourist market. WeChat is a social media platform with almost 1 Billion users. WeChat offers a complete suite of applications including social media, messaging, chat, video calls, shopping and payment systems. Weibo is a social media microblogging site with around 500 million users. CTrip.com, Qunar and Tunia are the main tourist booking portals in China and it will be essential to gain a presence on these platforms to provide advance bookings.

Strategies to drive mention of 'Blackfella Beef' could include encouraging Chinese travellers to share their pictures and videos and stories of their travels of Minjerribah – 'Blackfella Beef' experience on WeChat, Sina Weibo, Ctrip, Tunia, Qunar. As part of this, it could be possible to create a vision or a story around 'Blackfella Beef' so that people do not perceive it as a commodity – deployment tools could include QR codes, menus, social media, blogs, website. As storytelling fits with the Western Kangoulu culture of an oral history another avenue could include oral blogs or vlogs.

Potential extended value chain opportunities for the Chinese tourism market: There are also potential opportunities for Indigenous employment in some of tourist hotels and resorts in North Queensland, which could support 'Blackfella Beef's goal of an increase in Indigenous employment. There may also be an opportunity to have specific 'Blackfella Beef' tours, which tell the story of Blackfella beef. Daigou businesses may be advantageous.

In order to reach the Chinese market it may be necessary to market using their language. It would be useful to determine the correct script to represent 'Blackfella Beef'. Another advantage for 'Blackfella Beef', being located in Australia is that promotion of food that is disease-free, healthy, green, Australian industry standards is attractive to the Chinese market. As part of direct relationship building it would be advantageous to create a WeChat presence

for Chinese customers for visits to Australia and purchases from Australia. Another avenue could be to build relationships with Daigou businesses to supply directly to the Chinese gift market.

3.3 Market Forces

There are several modern market forces that may have an impact on setting up a 'Blackfella Beef' Indigenous value chain in Australia and globally. It is important to consider these to enable future success of the value chain. Here we discuss some of the factors to consider.

3.3.1 Markets and investment

Australia is one of the world's most efficient producers of cattle and currently ranks as the world's third largest beef exporter (Greenwood et al., 2018). In 2017-18, Australia produced 2.24 million tonnes carcass weight (cwt) of beef and veal (MLA, 2018), with 48.1% produced in Queensland.

Demand for Australian beef remains high in export markets and in 2017-18, Australia exported 1.1 million tonnes of beef and veal to over 78 countries, representing 71% of total production (MLA, 2018). The top five beef and veal export markets are Japan (28.5%), USA (21.8%), South Korea (14.5%), China (12.4%), and Indonesia (5.4%). Many of these groups match the common tourist groups coming to Queensland, so there is leverage to expand export markets using tourism initiatives

China is a major investor in Australian agribusiness, although this has been slowing in the last two years. Table 5 provides a concise summary of the Chinese direct investment in Australian agribusiness from 2011. This table provides a list of transactions greater than \$10m. It is apparent that there is significant interest in the protein sectors of both the beef and dairy industry in Australia. Should such a partnership be beneficial this provides a strong opportunity for global reach of the 'Blackfella Beef' brand.

Based on potential future success of the brand, it may be possible that it will attract the attention of major food MNCs. As Western Kangoulu wish to retain beef supply chain ownership, or work in partnership with other entities, it is strategic to be mindful of ensuring this will occur in any investment partnerships without relinquishing any brand or supply chain ownership. One of the major assets that require investment are infrastructure and this may be achieved through some of the current Australian Government funding initiatives such as the Northern Australian Infrastructure Facility (NAIF) funding.

Table 5: Selected Chinese Investment into Australian Agriculture. From VC Group, 2015

Time	Company Name	Industry	Target	Location	Value	Equity
2011	COFCO	Sugar	Tully Sugar	QLD	\$146 m	100%
2011	Bright Food Group	Food	Manassen Foods	NSW	\$530 m	75%
2011	Chinatex Australia	Food	Dairy	NZ		Supply Chain setup
			Honey	NZ		
			Beef	Aust		
2012	Shandong Ruyi Group	Cotton	Cubbie Cotton Group	QLD	\$277 m	80%
2012	Beidahuang Group	Cropping	Dennis Joyce's family cropping companies	WA	\$23 m	100%
2012	Tianma Bearing Co	Winery	Ferngrove	WA	\$15.5 m	100%
2015		Beef	Wollogorang and Wentworth station	NT	\$47 m	100%
2012	Shanghai Zhongfu Group	Sugar	Ord-East Kimberley Expansion Project	WA	\$700 m	Lease and develop land for sugar cane
2013	New Hope Investment Fund	Beef Processing	Kilcoy Pastoral Company	QLD	\$60 m	Majority
2013	Chevalier Group	Fruit	Moraitis Group	NSW		70%
2014	Rifa Group	Grazing	Blackwood	VIC	\$27 m	100%
2014	Goldin Group	Horse breeding	Lindsey Park	SA		100%
2014	1847 wine Co	Winery	Chateau Yaldara	SA	\$15 m	100%
2014	Hong Kong Yingda Investment Co	Winery	Hollick Wines	SA		Majority
2014	Hailiang Group	Grazing	Hollymount Station	QLD	\$31.5 m	100%
		Grazing	Mount Driven	QLD	\$10 m	100%
2014	China National Machinery Industry Corporation	Dairy processing	Greenfield Project DAIRY ON HOLD REPOSITIONING TO WAGYU	QLD	\$500 m	Joint Venture
2014	Foresun Group	Beef processing	Tabro Meats	VIC	\$25 m	100%
2014	Heilongjiang Grand Farm Group	Meat processing	V & V Walsh	WA		Supply Agreement
2015	Dashang Group	Grazing	Glenrock Station	NSW	Circa \$45 m	100%

3.3.2 Millennial markets

When examining hotels and restaurants that link into the domestic tourism market, we see that millennials are a demographic group worth considering for Western Kangoulu. This is millennials are one of the largest demographic groups (along with baby boomers), and they eat out regularly and order takeaway meals, but are also interested in healthy and ethical foods (Marketline 2018). As a result, millennials are willing to spend more on healthier products than baby boomers (Marketline 2018).

Convenience is important to millennials when it comes to delivery and service, and other important factors include branding, unique experiences and reliable pricing (Marketline 2018). Technology and home delivery services are attractive to millennials and there are opportunities to link in with restaurants to tap into this market. For instance, restaurants that are serviced through Uber Eats and Deliveroo type services may have an advantage, as these services attract hotel visitors through geolocation on their smartphones (Marketline 2018). When comparing food purchases away from home, 41% of millennials purchase food away from home twice a week compared with Generation X (38%) and baby boomers (37%).

Because millennials are fast becoming the largest generation their food behaviours, preferences and tastes are important. One of the challenges for 'Blackfella Beef' to be mindful of is the rising increase in plant based food diets, which is increasing rapidly at a rate of between 300-600% per year since 2015 (Marketline 2018).

3.3.3 Global dietary trends and beef products

Global markets provide opportunities for Indigenous beef if the product meets the country's consumer requirements. For example, an increase in calorific intake and changes to the composition of diets has had a significant impact on the health of ASEAN populations. It is predicted that more than 70 percent of deaths in South East Asia can be attributed to non-communicable diseases by 2030 (KPMG, 2018).

Government intervention and consumer demand are the drivers for the growth for healthier food products. KPMG (2018) identifies that the healthy packaged food market will increase by 5 percent per year during 2018- 2022. Here in Australia it has also been identified that there are still great inroads that need to be made in improving the health of Aboriginal and Torres Strait Islander peoples (Australian Institute of Health and Welfare, 2019). Increased access to healthy food products and nutritional education are only some strategies being employed. However, there is also scope that an Indigenous beef value chain can assist with providing access to protein-based foods for these communities.

3.3.3.1 Consumer preferences and the wellbeing market

A rapid shift in consumer food preferences along with increasing health concerns is driving growth in the wellbeing market size. Consumers are seeking health benefits such as improved immunity, hydration, muscle protein synthesis, weight loss and anti-aging properties are expected to influence product demand. Personalised nutrition becomes necessary also because one individual's metabolic response to a specific intervention is likely to be different from other individuals, which is called metabotype.

Functional Foods

Interest has surged in "functional foods," including "culinary medicinals" such as turmeric and ginger (Denn, 2017). Exploration of the use of native bushfoods in 'Blackfella Beef' products found to have health benefits could also provide a more holistic Indigenous beef product. The flavours that are attractive to potential consumers were explored during this project via student surveying which is outlined later in this chapter. There is also a surge in demand for additional healthy products among athletes and bodybuilders to boost performance, general fitness, and overall health will provide a strong business outlook for manufacturers. Key functional ingredients, which can be sourced from beef cattle, such as collagen, gelatin, glycine, and glutamine, are expected to drive product consumption (Rawat & Verma, 2018).

3.3.4 Shelf-stable beef products

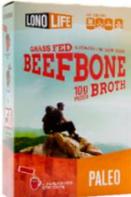
Shelf-stable products provide 'Blackfella Beef' with the opportunity to engage in direct B2C engagement through online sales or with the market sectors discussed above. Shelf-stable products are an attractive option as the timeframe for sale of the product is longer than is the case for fresh beef products. Beef can be processed into a range of shelf-stable preserved

formats such as jerky bars, broths and salami style cuts, and more recently, into chips. Many small producers who wish to connect the consumer to their farm have adopted this strategy.

3.3.4.1 Broth products

Bone broth products have had a strong history in the US but there is now a variety of broth products now also available to Australian consumers (Table 6).

Table 6: Bone broth products available to Australian consumers.

				
\$47.82/L	\$233.33/kg	\$27.50/L	\$199/kg	\$115.20/kg
				
\$331.66/kg	\$23.98/kg	\$249.50/kg	\$356.25/kg	\$588.89/kg
				
\$157.12/kg	\$179.50/kg	\$450.00/kg	\$249.50/kg	\$14.00/L
		<p>Bone Broth Sachets held average dimensions of Height 22 – 24 cm, Width 11-14cm</p> <ul style="list-style-type: none"> • Smaller single sachets are also provided in multi-sachet products. • Further detail of their pricing breakdown is available in Appendix C. 		
\$541.25/kg	\$17.50/L			

It is worth exploring developing ‘Blackfella Beef’ bone broth products. Recent changing consumer preference towards animal-based stock as a protein source will help drive broth market growth, while rising health consciousness and high disposable income will support the product penetration. Factors such as rapid urbanization and ageing population are also anticipated to increase ready-to-drink broth market size (Global Market Insights, 2018).

Beef broth market size is anticipated to exceed USD 450 million by 2024. Innova Market Insights reports that while the key market category globally for bone broth products is meat, fish and eggs (34 percent), the fastest growing market sub-categories are juice and juice drinks (+500 percent); meat products (+278 percent), and soup (+125 percent), albeit from very small bases (Lalou, 2019).

Sales of broth and stocks have risen in conjunction with this trend (17.8% to \$1.1 billion between 2010-14) and are expected to continue increasing (13.2% to \$1.2 billion between 2015-2020) (Garrison, 2016). There are many new product launches occurring annually in the US (

Figure 16) and this trend is extending into Australia.

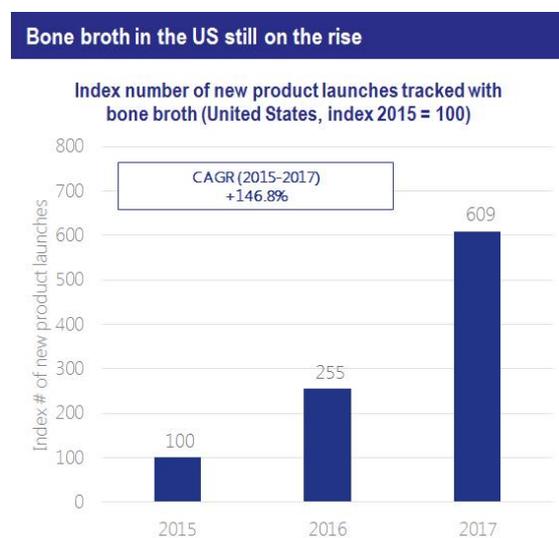


Figure 16 : Index number of new product launches tracked with bone broth in the US. (Source: (Lalou, 2019)

Bone broth products are shelf-stable, and are often positioned next to stocks and broths in store. Bone broth manufacturers face challenges when it comes to consumer education, wherever they are positioned in store. Locating a product that you have to heat up with ready-to-drink beverages can cause confusion, while having a beverage in the soup/stock aisle or the freezer aisle is also unexpected) (Watson, 2016).

There are several different characteristics of the types of consumers who purchase beef broth products (i.e. target groups). These include:

- Millennials purchase broth more than any other generation (Garrison, 2016).
- Those following the Paleo movement (Denn, 2017)
- Those with busy lifestyles and rising working women numbers (Rawat & Verma, 2018).
- Those diagnosed with Arthritis (Arthritis Foundation, No Date)
- Those diagnosed with leaky gut syndrome (Rawat & Verma, 2018)
- Those looking to improve immunity (Harvard Medical School, 2018)

- Those looking to improve gut health

When purchasing bone broth and soup products, around one-third of consumers are looking for products with ‘natural’ (34%) or ‘reduced’ claims (32%) (i.e., reduced salt, reduced fat, reduced preservatives) on the packaging. Global Market Insights (2018) suggests that Improved taste, high vitamin & mineral content, anti-inflammation and easy to digest are key factors in the bone broth product that consumers are looking for (Global Market Insights, 2018).

Bone Broth Co market research indicates that their consumers want broth made from grass-fed, pasture raised cattle that are hormone and antibiotic free. Consumers are also interested in seeing that it has been simmered for more than 24 hours and that it uses a vinegar rather than a tomato base (Watson, 2016).

3.3.4.2 Beef bar products

There are, a range of different beef and collagen bar products available online in Australia, and some in-store in specific locations, e.g. service stations (Table 7).

Table 7: Beef bar products available to Australian Consumers.

 <p>\$131.67/kg</p>	 <p>\$90.76/kg</p>	 <p>\$123.46/kg</p>	 <p>\$74.13/kg</p>
 <p>\$150.15/kg</p>	 <p>\$81.51/kg</p>	 <p>\$110.40/kg</p>	 <p>\$117.50/kg</p>
 <p>\$83.33/kg</p>	 <p>\$121.58/kg</p>	<ul style="list-style-type: none"> • Further detail of pricing breakdown is available in Appendix C. 	

However, it was difficult to find beef protein bars available for sale over the counter in Australia via typical retail outlets, such as supermarkets and health food shops, only jerky was easily sourced. The majority of the protein bars for sale were bean, nut, chia, flax, soy, seitan, or mushroom based.

There is a longer history of meat bar and beef jerky consumption in the US and being a shelf-stable product it may be possible to produce 'Blackfella Beef' meat bar snacks for global markets. People often seek such snacks for nutritional purposes. In 2006, 39% of the US population said they sought out foods that are high in protein, according to the National Marketing Institute.

By 2014, 53% of the population were seeking high-protein options (Taylor, 2016). Jerky is a popular product in the US, and people tend to like meat bars for similar reasons to why they like beef jerky. They are convenient to eat, and have a meaty taste that is hard to get from other snacks. They also tend to have good nutritional profiles, with high protein, low fat, low carbs, and low sugar.

There are a couple of benefits to meat bars over beef jerky: they are easier to eat quickly since they are softer and thicker, meaning they assuage hunger more effectively, and they are a "fresher" meat experience than jerky. They are used by consumers as a source of protein and because they are easier to eat than jerky, they are often more popular than jerky as a meal supplement, or meal replacement. The market size of meat bars as a replacement for energy and nutrition bars, was \$2.5B in the US in 2015 (Yaman, 2018).

Some consumers conceptualise meat bars as an attempt to conveniently package fresh meat. Many of the meat protein bar products also make an emphasis of 'grass fed beef' (Berry, 2018; Taylor, 2016), which is motivated by the paleo movement, emphasising healthy animal fats, grass fed protein, and leafy vegetables (Taylor, 2016). The rise of the paleo diet has encouraged the trend in the purchase of meat bars and snacks, as the so-called "caveman diet" encourages the consumption of lean meat and vegetables and discourages eating grains, legumes, and seed oils (Taylor, 2016). Brands with names such as Caveman Foods are using customer feedback in their advertising which highlights that consumers want products to carry logos denoting compliance with paleo and Whole30 meal plans (FONA International, 2018).

While there is no legal definition of 'whole' or 'clean' foods, consumers are seeking out these and so-called natural foods in meat protein bars/snacks (Ball, 2019). About 26% of 18-34-year-old US consumers like the notion of preservative-free products, a category claim that has seen huge growth over the last four years. Consumers looking for high-quality complete proteins are also turning to meat bars and jerkies which tend to have short ingredient lists (Ball, 2019). Consumer research firm Mintel found that nearly 75% of consumers

crave healthier salty snack options, and that 79% want to be able to recognize a snack's ingredient list (Judkis, 2017). This explains the mottos, brands and tag lines of many beef protein bar manufacturers claiming 'all natural, no nasties', and '100% grass fed'. The meat protein bar also fulfils the needs of other diets such as gluten-free, ketogenic, dairy- and soy-free (Ball, 2019).

The packaging of shelf-stable products is of importance as it is the first interaction that a consumer may have with a product. Due to limited beef-based products in some categories we explored the appearance, messaging and dimensions of snack products typically found in Australian supermarkets and service stations (Appendix D). How 'Blackfella Beef' products may be packaged may include messaging surrounding the story of the brand.

Meat bars sometimes struggle to meet consumers' expectations on taste and texture. Epic bars have several low reviews on Amazon, although much of the negative feedback occurred after the purchase of Epic by an MNC. One of the main difficulties that meat bars have is that it is very difficult to prevent contamination, as bacteria naturally thrive on the moisture present in a meat bar. Companies tackle this issue by including acidic fruits or spices with antimicrobial properties as preservatives (calling back to the Native American technique of wasna). However, these techniques affect the texture of the product, causing a dense, mealy mouthfeel that affects consumer opinion. Inclusion of a moisture absorption packet can overcome some of these issues. Additionally, the use of fruits restricts the types of flavor profiles the bars can have (Yaman, 2018).

These bars are geared towards the average, semi-active consumer (i.e, people interested in learning more about paleo, but not necessarily 100% paleo (Taylor, 2016). Teens are also supporting the rise of meat snack popularity. In 2013, only 6% of meat snacks were purchased for teens, but in 2017 this number jumped to 30% (FONA International, 2018).

3.3.5 Online sales

Online grocery shopping usage has been increasing in Australia, but the uptake is not yet as high as in other countries. Online shopping of boutique food products directly from companies has also been rising. Setup of an online sales platform for 'Blackfella Beef' products and services could be advantageous, based upon the trend towards a rise in online sales of food products. However direct B2C engagement and sales can be initially difficult to establish.



In the US, economists predict that online grocery sales will capture 20% of the total grocery retail by 2025, reaching \$100 billion in consumer sales (Danziger, 2018). Although estimates

of the online grocery share of the \$64 billion US grocery market vary from 2% to 4.3% (Danziger, 2018), FMI-Nelson (2018) suggests that the grocery market is the next major retail sector to be disrupted by e-commerce. Amazon is leading the response to the shift in consumer preferences and currently holds 18% of the online grocery market (CISION, 2018).

Although consumers have been measured in their approach to online grocery shopping due to well-established shopping habits and preference to personally examine and pick fresh meat and produce, online retailers have helped online shoppers learn to like online grocery shopping and delivery by leading with packaged foods (Danziger, 2018).

According to (Allen, 2017), there are many industries in the US ready for disruption by successful subscription based e-commerce sites. Considering economy-wide trends, it is predicted that this movement will continue. This applies to any products that are used and/or consumed regularly. Such products could successfully be sold via a subscription model, and in many cases already are being sold in this manner. Examples include beer, 'Meatpacks' (Currie, 2019), 'Vegpacks', meal kits, beauty products and snack boxes. Some successful Indigenous products are already sold via online shops, e.g. Something Wild at www.somethingwild.com.au.

Millennials, in particular, are increasingly keen to spread living costs via subscriptions instead of making single big-ticket purchases. In the US, those currently in their twenties have average incomes higher than those in their twenties did two decades ago, and have disposable incomes a third higher than the same age cohort did twenty years ago (Nelson, 2016). However, their wealth (considered the sum of their assets) is significantly lower than that of other demographics, and lower than wealth of their parents when they were in their twenties.

3.3.6 Consumer preferences and Indigenous flavours

Student feedback on broths and protein bars. The price of the packet supplied (\$25.00) with 30 serves was a barrier to the students. Some of the students commented that for the 100 gram broth powder this might be better packaged and sold as individual portions to a student demographic as budget is usually a purchasing influence.



It was also raised that sample packs where you can try a range of different flavours or styles of products may be more appealing. With both of these strategies, purchasers can avoid having a high volume of a product they do not know the taste/sensory characteristics of, and possible wastage if they do not like it.

Some of the beef and chicken broth powders were sampled during this initial session (Original beef broth from Nutra Organics) with some of the bush food flavourings added. Then students spent a week trying out some of the broth and bushfood samples.

It was noted by the students that the broth was quite bland in flavour and they felt that the instructions may produce too dilute a product (e.g. 1-2 teaspoons in a cup). It was raised that in a more concentrated form it may be more appealing. The visual appearance of the broth powders (gold and 'sparkly') was quite interesting to the group and considered visually appealing. Despite the flavour being perceived as bland, the group did note that the aroma is quite strong. The group also looked at a range of protein-based snack products purchased from a convenience store and initially discussed the pricing. This was again discussed in the follow up session after students had a chance to try the products. The products ranged in price from \$2.50 to \$6.50.

The group gathered a week later after having a chance to try some of the products in the home environment. One outcome of the follow-up discussion is that while the broth powders were considered bland when made up as broth drinks, they were considered flavoursome when used as a powder in a beef mince dish. No extra liquid was added which helped to keep the flavour a bit more concentrated. Students also liked the powder form, as it signalled a longer shelf life, and would be easier to carry around. One of the group members did mention as personal preference that they perceived liquid broths as 'better'. Upon raising the idea of a tube of broth concentrate, this did not carry as much appeal as powder or liquid. The group did also highlight that to differentiate the higher value broth powder from cheaper stock powders the packaging used would be of great importance. As an example, the wrapped foil cubes that stock powders sometimes come packaged in would not be appropriate, as these are perceived as cheap.

In terms of bushfoods, lemon myrtle was the most popular with the group. The students used them on a range of foods including chicken schnitzel from the university cafeteria, steak, and also in pea and lentil soup after the soup was made. All agreed that out of all the bush foods this was a pleasant flavour and could be used in savoury or sweet products. Some of the

students also tried river mint on chicken and advised that this was also a good herb to use with meats. Lilli pilli was used on ice cream and noted as having a pleasant raspberry toned flavour but did tend to change the flavour of the product significantly. This may have been due to being sprinkled on top and hence adding strong flavour to the first few spoonfuls.

Where possible all students tried the protein snacks. One student abstained as they cannot eat hard chewy products. Many of the students commented that protein bars have an odd texture, dry but mushy. For most students it was not a terrible texture, but it also wasn't particularly attractive either. Some of the students commented that the larger protein snacks (e.g. 90 grams) were just too big and the group agreed that a smaller snack size (e.g. 40 grams) would be more suitable for a product like this. Hard textures, like the Bounce Ball Coconut Macadamia product were considered unpleasant. There was no significant preference as to whether a protein bar or ball were preferred. Students indicated that an attractive price point for a 'protein beef' bar was \$3.00 and that \$6.50 was a barrier.

Extending on the protein snack discussion, beef protein snacks were raised as an alternative. Some of the students perceived a beef bar to be an odd product premise but felt that beef 'sticks' like small salami snack sticks may be better perceived. The group raised again that avoiding a hard, chewy texture that takes a lot of effort to eat would be best, but a more cohesive texture for a beef product may be more appreciated than a dry crumbly/mushy protein bar. Pet beef based protein snacks also seemed like a good option in the opinion of this group.

Online purchasing was not common across this cohort. Most of the students mentioned budget, and the need to see food products in person to know properly what they are, and what they might be like. They did acknowledge that with online grocery shopping that less opportunities for impulse buying would occur and therefore they felt that online shoppers would be less likely to try new products.

3.3.7 International Indigenous Beef case study

There is no precedence for a full Indigenous beef value chain in Australia. The following case study of the Native American Beef Brand, 'Navajo Beef', provides insights into their brand and journey. Examining how this brand was established may provide some guidance on how 'Blackfella Beef' may perform into the future.

"Navajo Beef" is a brand that began in 2013 under Labatt Food Service, which strives to produce "USDA Choice" beef that comes from cattle that are raised in an area known as

Padres Mesa Ranch, a 60,000-acre demonstration ranch¹ in Newlands, located near Sanders. Labatt Food Service currently purchases approximately 400 cattle annually from 43 Navajo families who participate in the demonstration ranch program. In addition, families from the Eastern Navajo Agency participate in the “Navajo Beef” program as well. The Native American Beef Brand is supported by the following key principles:

- *Implant Free Beef, which is Grass feed and Grain finished.*
- *Extended 21 Day Aging Process for a Superior Choice Grad Quality*
- *Family raised cattle to deliver the highest quality, community sustainable beef*
- *Traditional Native American ranching practices, creating generations of superior choice beef.*
- *100% Source verified to ensure accountability, traceability, and sustainability*

“Beef from Native American, Tribal Lands”

The cattle raised are approximately 50% Black Angus. Future challenges include working with farmers on cattle genetics to breed the best performing cattle that meets customer demands for high quality cuts. Much of the press and media related publications point to the importance of an appropriate food distributor to the success of such a concept.

The Native American Beef concept was first established in 2011. Shortly after, in 2012, a partnership was established between Labatt Food Service (a family run food distributor), and Navajo 14R Ranchers² and Padres Mesa Demonstration Ranch. In 2013, the first Navajo Beef was served for the first time via the Navajo Nation Gaming Enterprise at Twin Arrows Casino. In 2014, more tribal partners joined the cooperative including the Jicarilla Apache Nation, the Mescalero Apache Tribe and the Pueblo of Isleta. Over 2015 and 2016 the distribution extended to high end restaurants including Wedell’s Steakhouse as well as supply to ‘local’ supermarkets via the Bashas’ Supermarket chain.

The Native American Beef Project Overview

All products carrying the Native American Beef brand are certified under “Where Food Comes From”, which is an industry-leading source verification program (Figure 17) where selection is to be from an approved list of Native American producers. Native American Beef is available for purchase by stores and restaurants in the American Southwest. Direct Source Meats is the food processing company. There are two operations: one based in Albuquerque, and the other in San Antonio. Both facilities process fresh cuts of beef, pork, veal and lamb and have USDA

¹ Demonstration Ranch: A **demonstration ranch** is a **farm** which is used primarily to demonstrate various agricultural techniques, with any economic gains being an added bonus.

² 14-R refers to the 14 different ranches, 82 different families farming cattle over 300, 000 acres.

certification. The San Antonio facility specializes in marinated fajitas, stewed meats and customized packaging. The Albuquerque facility includes custom ground beef production and offers about 300 different products.

The environment set up within the framework of the 'Navajo Beef' brand and associated activities provides an example of what could be possible for 'Blackfella Beef' in Australia. Identification of the different types of stakeholders, similar to those outlined in Figure 17 provide a little guidance. From here, we can identify the type of supply chain possible. The addition of a verification system across the entire 'ecosystem' as well, provides opportunity for visible identification of an Indigenous beef brand.

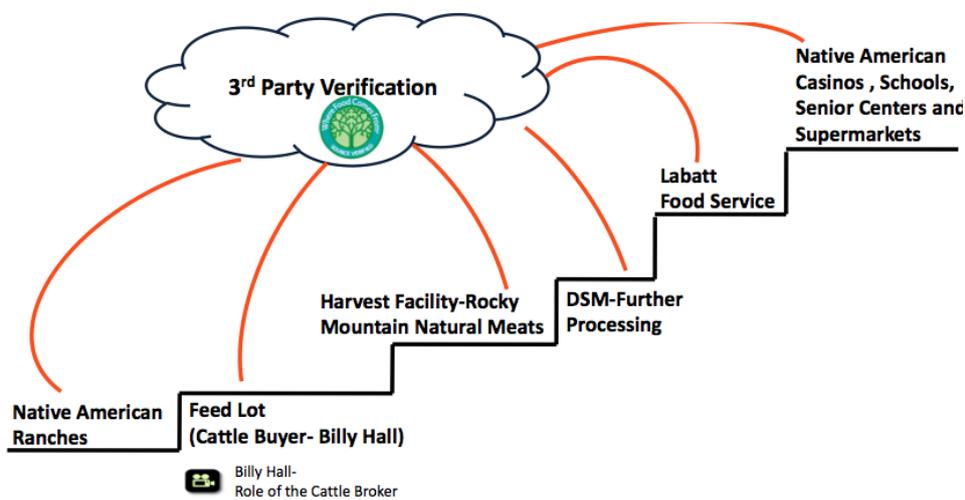


Figure 17
Example of
Source Verified
Beef Process
Flow

Potential extended value opportunity: A demonstration ranch/station could be set up on one of the Indigenous properties that form part of the proposed 'Blackfella Beef' network, identified as a 'Blackfella Beef Property' for tourism purposes. Foleyvale station owned by the Woorabinda Pastoral Company has done this in the past.

4 Assessment of Indigenous Value Chain Feasibility

As a first step in examining feasibility of a 'Blackfella Beef' value chain, it was important to first assess production and supply into the value chain so that there could be product to track through the proposed supply chain(s). This included carrying out Indigenous herd assessment, especially quality and quantity of supply, by focusing on analysis of herd data and supply chain feasibility.

4.1 Analysis of Indigenous herd data

The 'Blackfella Beef' team are working with the Indigenous Land and Sea Council (ILSC) and other Indigenous groups to improve Indigenous herd quality and property management. Both on-farm and post-farm gate activities will require substantial skills development, investment and support. The initial opportunities for increasing Indigenous employment is on the cattle properties.

4.1.1 Herd quantity

Cattle numbers are an estimation based on discussion with 'Blackfella Beef' team members, the ILSC and other Indigenous property managers. The bulk of Indigenous cattle numbers are on breeding country in northern Australia, Qld, NT and WA as identified by ILSC mapping (Figure 18).

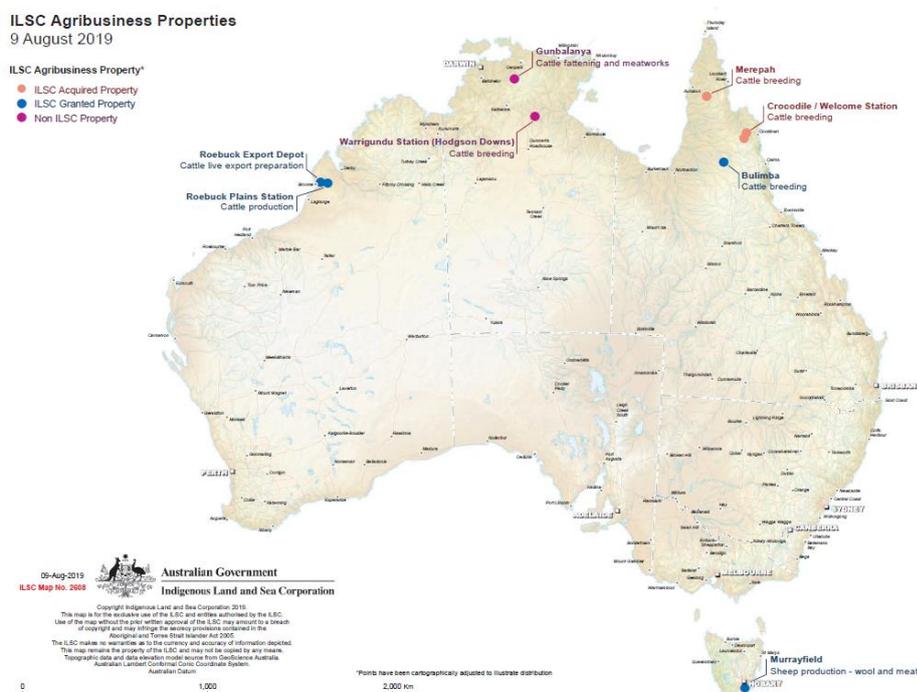


Figure 18:
Identification of
ILSC agricultural
property
locations.

Identification of the locations of Indigenously owned and/or operated properties has also been done by the Western Kangoulou team, along with locations of abattoirs (Figure 19).

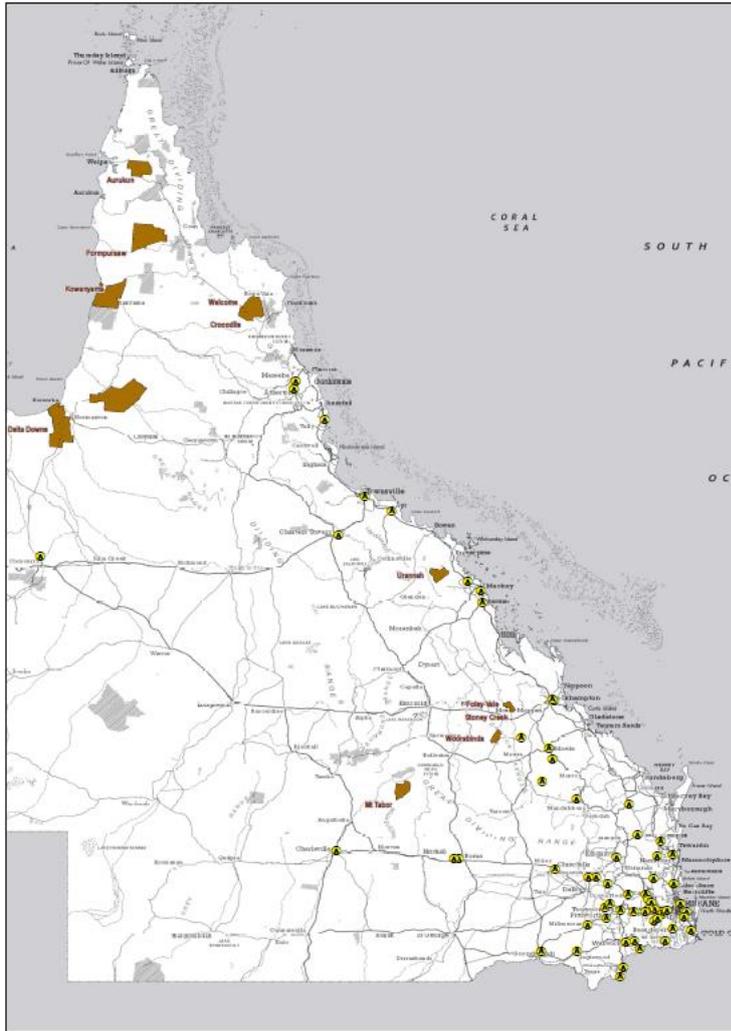


Figure 19: 'Blackfella Beef' map of Indigenously owned and/or operated properties (labelled in brown) along with the locations of abattoirs potentially suitable for processing (labelled with a yellow 'A')

Early inquiries indicated that cattle numbers on Indigenous owned land across northern Australia are approximately 150,000 (Table 8). There is also potential to reach 300,000 hd with some further development and expansion on existing Indigenous owned properties.

Early indications therefore demonstrate that the numbers of cattle on Indigenous owned land may be sufficient to develop a branded beef product, however quality also plays a part. These two aspects of herd quantity and quality must be evaluated in tandem, to ensure that 'Blackfella Beef' activities could provide a suitable supply of cattle. Early discussion has demonstrated considerable interest in the concept from Indigenous cattle owners. Sheep and goat numbers are also approximately 50,000 to 60,000, which provide additional opportunities for 'Blackfella Beef'.

Table 8: Indigenous properties in regional Queensland and New South Wales

Property name	Location	Est. Cattle no's	Indigenous ownership?	Indigenous ownership?	Enterprise
Urannah	Mackay, Central Qld	2,000 hd	Yes	No. Family business	
Woorabinda	Rockhampton, Central Qld	5,500 hd	Yes	Yes	
Mt Tabor	Charleville – Western Qld	1,800 hd	Yes	No. Large cattle business	
Delta Downs	Normanton – Gulf Qld	40-45,000 hd	Yes	Yes	
Mungalla	Ingham – Nth Qld	500 hd	Yes	No. Family business	
Coorumburra	Marlborough – Central Qld	2,000 hd	Yes	Indigenous owned	
Cangai Creek	Grafton – Nth NSW	800 hd	Yes	No. Family business	
Bohda	Goodooga – NW NSW	500 hd	Yes	No. Family business	
Mogila	Goodooga – NW NSW	800 hd	Yes	No. Family business	
Trelawny	Tamworth – Central NSW	200 hd	Yes	No. Family business	
AIA Properties	Northern Aust	90,000 hd	Yes	Yes	
Lawn Hill	Mt Isa – Gulf Qld	50,000 hd	Yes	Yes	
Kowanyama	Cape York - Qld	5,000 hd	Yes	Yes	

4.1.2 Herd quality

Most of the cattle on the Indigenous properties are *Bos Indicus* based, with some *Bos Taurus* influence in the more southern properties (Agriculture Victoria, 2019). Many large Australian Cattle companies have a similar breeding resource, and focus on the live export market, or move cattle to growing and backgrounding properties further south, and eventually to feedlots in grain growing districts. *Bos Indicus* cattle are usually selected by northern producers, as they are very hardy, resistant to ticks and are able to cope with the heat. However, the beef produced from these animals is typically of lower quality than beef produced from *Bos Taurus* animals.

There is still considerable scope to improve the productivity of the beef properties. Factors potentially affecting resilience and profitability of the properties include poor infrastructure, limited fattening property availability, quality of cattle genetics, and access to a suitably

skilled workforce. To overcome these issues, the intention at this stage is to focus on grass fed beef, in keeping with the natural approach.

This eliminates the possibility of using feedlots to provide a regular supply of finished product. There is, however a category of grain feeding called Grain Fed Finished, which involves a 35-day feedlot period and is in effect a grass-fed, grain-finished category. This feeding strategy may be utilised to provide a supply buffer to ensure a consistent finished product and overcome some of the current variability.

Upon consultation with service abattoirs, it was identified that the current breed of cattle on Indigenous properties would likely produce an 'economy' type product; however part of the value proposition is the Indigenous branding, so value would be attributed to these two components, plus other aspects.

4.1.3 Supply considerations

It was identified that supply of quality cattle from Indigenous properties needs to be improved first. Bearing this in mind, the first strategy to deploy is to develop property workforce and business development services under the 'Blackfella Beef' brand. This could be coupled with occasional supply of fresh or chilled beef products range with a longer-term development of packaged shelf stable products. This could be similar to the 'Navajo Beef' strategy and the aim is to start with:

Year 1 – 75 head per 2 months.

Year 2 – 75 head monthly.

Year 3 – 75 head fortnightly.

Initial analysis has indicated that a live cattle weight of 400kg to 450kg is achievable if cattle are finished on 'good fattening country'. To supply cattle at the target weights of between 400 – 450 kg, with dressed weights of 220 - 250 kg, will require developing both the property management systems and the supply chain logistics, as the current stock is highly variable.

The yield of saleable meat from these dressed weights is approximately 148 – 160 kg. Using the figures above, based on a single beast, the yield of meat from 75 head of cattle would be approximately 11,100 – 12,000 kg, which could be used to produce several products for different markets. There are a wide range of meat cuts available (Figure 20), and they have different sale values. These can then be sold as fresh meat cuts, value-added meat cuts (e.g. Indigenous flavours), processed fresh meat products (e.g. Indigenous burgers or sausages) and shelf-stable meat products (e.g. broth and bars).

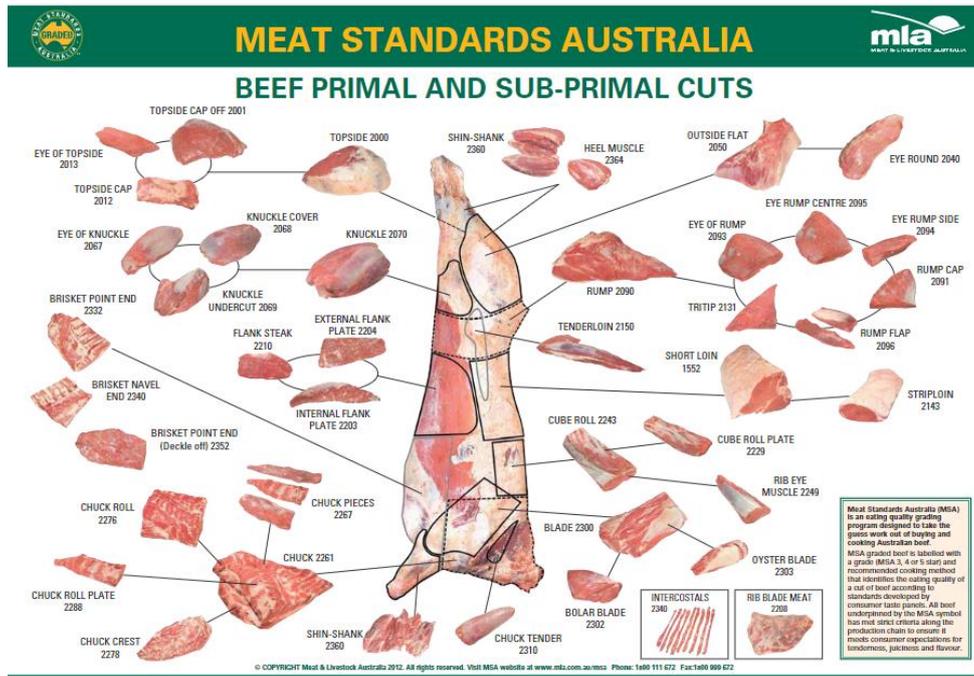


Figure 20: Diagram depicting the different primal and sub-primal cuts of meat possible from a carcass.

Error! Not a valid bookmark self-reference. outlines the amount in kg of different products that could be produced from 75 head of cattle.

Table 9: Amount of sub-primal cut products produced from 75 hd of cattle

Beef cuts	Percentage of carcass	Minimum mass from 75 hd (kg)	Maximum mass from 75 hd (kg)
Rib fillet	3.37%	374	404
Chuck	3.83%	425	459
Brisket	7.40%	22	889
Blade	5.61%	623	673
Neck-bone	1.61%	179	194
T-Bone	5.47%	608	657
Topside	6.46%	717	775
Silverside	5.56%	617	667
Rump	4.25%	471	510
Knuckle	3.68%	408	441
Butt fillet	0.87%	96	104
65-CL Trim	10.63%	1180	1276
90-CL Trim	13.91%	1544	1669
Fat & Bone	27.36%	3037	3283
Total	100%	11100	12000

1. Typically non-profitable products have been struck-through, although they could be used for value-added products.

The total amount of cattle processed and associated products, in tonnes, based on the Years 1-3 scale-up strategy are shown below in Figure 21. Later, in the chapter focused on viability, we will examine the potential value of these levels of production

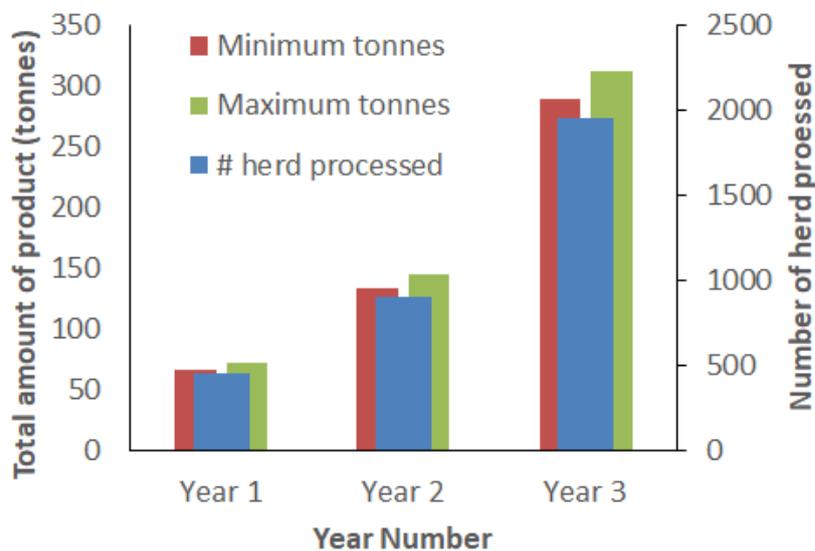


Figure 21: The increase in 'Blackfella Beef' production levels using the scale-up strategy outlined.

4.2 Assessment of property management practices and attitudes

Property management services are essential to develop the proposed supply chain strategy for 'Blackfella Beef'. Insights into Indigenous beef property management – including governance, logistics, supply chains, herd size and management, and natural and human resources has been undertaken. With improved property management and genetics, the quality of the beef could be improved. Increased productivity from paddock to products, as outlined in the previous section will require more intensive management and therefore provide opportunities to grow Indigenous employment.

Three of the Central Queensland properties, and how they are currently operated, are next described in more detail.

4.2.1 Woorabinda

Woorabinda Pastoral Company operates cattle and grain enterprises on the traditional lands of the Ghungalu Aboriginal people. The company operates these enterprises on at least seven different parcels of land in the Baralaba and Duaringa districts of Central Queensland that are owned and/or managed by the Woorabinda Council. The aggregation currently runs approximately 5,500 hd, which includes a breeding herd of approximately 2,000 cows plus followers.

Cattle are run on all the properties owned and/or managed by the Woorabinda Council, and these properties are spread throughout the Duaringa and Baralaba districts, and are not all adjoining. Land is utilised for the purpose to which it is best suited, so the lighter country is

used for breeding, the better-pastured country for growing, and the farming country for farming or for fattening. The properties are capable of producing good quality cattle and grain and or pasture to fatten cattle.

4.2.2 Mt. Tabor

Goorathuntha Traditional Owners Ltd. (GTOL) owns a property called Mt Tabor in the Charleville district of Central Western Queensland. Mt Tabor is located in an area known as cattle breeding country. The property is largely undeveloped in terms of vegetation clearing, and cattle are run on natural pastures. GTOL lease the property to a local cattle company called Australian Country Choice (ACC).

ACC use Mt Tabor as a breeding property and run approximately 1,500 breeders on Mt Tabor. Weaners are then taken off Mt Tabor and moved to growing country in the vicinity and then to fattening country in the Roma district. ACC own a number of properties in the immediate vicinity and closer to Roma.

4.2.3 Urannah

Urannah Property Association (UPA) owns a property called Urannah in the Nebo district of Central Queensland. Urannah is a large property in the Broken River Valley north west of Mackay in the central highlands of Queensland. The property is pastoral leasehold and the lease is owned by the Urannah Property Association. UPA lease the property to the Elliott family who operate other cattle enterprises in the Rockhampton area.

Urannah has been used an extensive cattle breeding property for a number of years. The property is largely undeveloped in terms of vegetation clearing and pasture establishment and cattle graze largely native pastures. UPA are in the process of investing in fencing and waters to improve the cattle carrying capacity of the property and to protect the riparian areas of the Broken River and the main tributaries of this river.

The Elliott family run approximately 2,000 hd on Urannah, which includes a breeding herd of approximately 1,800 cows plus followers. Weaners are taken off Urannah and moved to finishing country that the family own near Rockhampton.

4.2.4 Property management services and Indigenous beef properties

To develop the 'Blackfella Beef' supply chain, 'Blackfella Beef' will develop agreements with Indigenous beef properties. The 'Blackfella Beef' team property management service will support 'Blackfella Beef' partners, in strengthening the supply side with improved property, livestock and supply chain management, which are based on Grazing Best Management Practices.

Other objectives include increased employment levels, improved educational standards, and improved and documented environmental management. Discussions with ILSC, MLA and other stakeholders has shown a demand for the development of a specific Indigenous focussed land, property and livestock management training, mentoring and support service. A collaborative effort has designed an approach to develop this service and to initiate implementation across Northern Australia.

A pilot workshop based on Grazing Best Management Practices modules (Figure 22) was held in Central Queensland in May 2019, utilising existing training products and technical specialists, followed by on property support during May and June 2019 (Appendix E). The programme was designed to support property managers and staff on Indigenous properties to optimise herd quality and quantity, as well as introduce many aspects of property management (Figure 22: Modules present in the Grazing Best Management Practice programme

Table 10).



Figure 22: Modules present in the Grazing Best Management Practice programme

Table 10: Pilot programme for 'Blackfella Beef' Grazing Business Workshop.

Blackfella Beef Grazing Business Workshop Programme	
Day 1 - Evening <ul style="list-style-type: none"> ▪ Welcome to Country ▪ Story of Blackfella Beef ▪ Marketing and importance of consistent quality ▪ MSA presentation and tasting 	Day 2 – Animal Production <ul style="list-style-type: none"> ▪ Breeder management ▪ Bull management ▪ Animal health and welfare ▪ Low stress stock handling ▪ LPA/NVD fit load and biosecurity reporting ▪ Post mortem (plus animal rumen digestion) ▪ Cultural heritage
Day 3 – Land Management <ul style="list-style-type: none"> ▪ Pasture ▪ Land condition ▪ Soil health ▪ Carbon 	Day 4 – Business Skills (manager focus 1/2 to 2/3 day) <ul style="list-style-type: none"> ▪ Diversification ▪ Mapping ▪ Health and safety

- Weeds
- Governance

- Business management

Following Week – Mentoring Programme

The learnings gained from this pilot process will inform the development of a broader workforce development and support programme. This programme will be developed using the existing MLA EdgeNetwork and Grazing BMP products with appropriate modification to content, delivery and feedback to suit the target audience. It was envisaged that the development and early implementation of this programme will take place during the second half of 2019 and early 2020. A second workshop that was refined based on the pilot workshop was also held in October of 2019 and both workshops had good feedback (Figure 23).

A mentoring programme was also developed during this project, aligned with the workshops. Details of how this programme assisted property managers is also outlined in Appendix E.



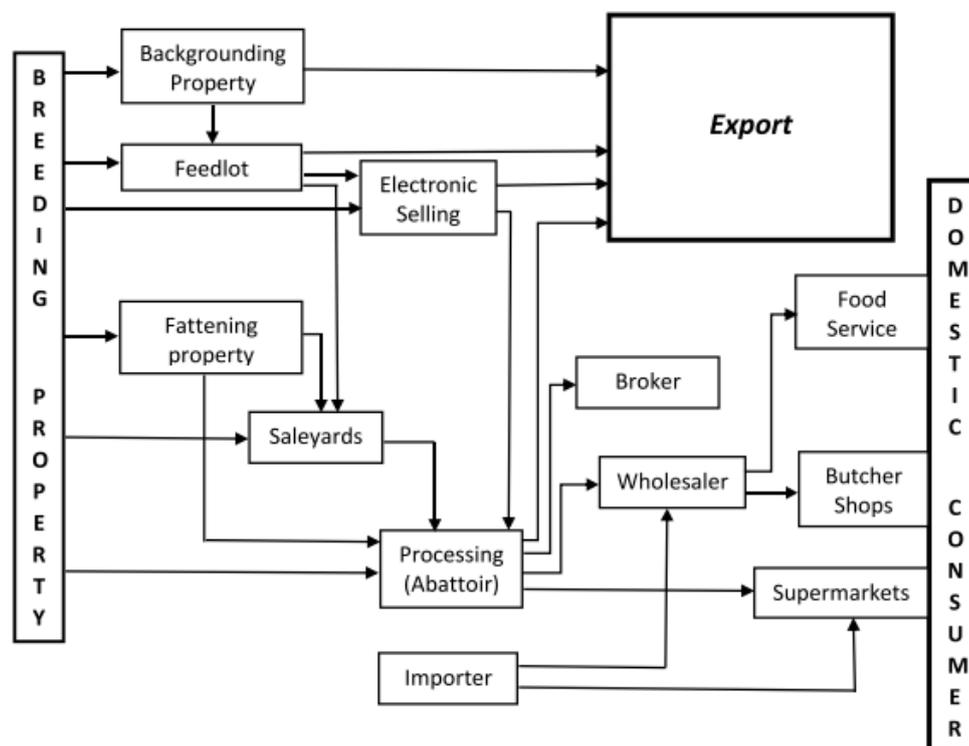
Figure 23: Photo of Workshop Group and comment on how the programme inspired attendees.

At this stage, a number of producer, government and non-government organisations have indicated a willingness to support this development process. When the full programme is developed, 'Blackfella Beef', in collaboration with supporting partners such as MLA and ILSC will implement the workforce development and support programme to other Indigenous organisations involved with cattle and land management across northern Australia. Depending on arrangements with supporting partners, the implementation of this programme may be provided by 'Blackfella Beef' on a fee for service basis.

4.3 Assessment of employment and workforce development opportunities

Several employment and workforce development opportunities were identified across the supply chain, from cattle management on the beef properties to retail outlets, both at an SME scale, e.g. pop ups, and for the corporate sector.

Establishment of a true Indigenous beef value chain will require Indigenous staffing at all parts of the supply chain and will be a long-term project to develop the workforce to the level required. As part of this, identification of potential workforce opportunities, particularly in partnership with other specific stakeholders was identified during this project. Some of the range of potential Indigenous employment opportunities in a core beef value chain are outlined in Figure 24. It is acknowledged that development of such a vast workforce is required, and how this will be developed will need to be staged.



<ul style="list-style-type: none"> Property Management Workshop and Training Services 	<ul style="list-style-type: none"> Transport and Logistics Cattle Sales Marketing Processing 	<ul style="list-style-type: none"> Sales Marketing Product Development Wholesale 	<ul style="list-style-type: none"> In-person and electronic retail for different market segments
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Figure 24: Beef supply chain showing potential Indigenous employment and enterprise opportunities. Supply chain diagram from Greenwood et al. (2018)

Discussions with potential buyers of 'Blackfella Beef' has shown a strong interest in increasing Indigenous workforce development within their operations. Most businesses that were interviewed had an Indigenous employee but they were a minor part of their workforce. When it was explained that 'Blackfella Beef' wanted to support Indigenous employment and skills development in ALL related supply chain businesses, the response was very positive. Businesses saw it as an opportunity to build relationships, and for businesses that operate in remote areas, such as the mining sector, Indigenous employment and upskilling is an essential part of their employment strategy. 'Blackfella Beef' could capitalise on some of these initiatives by potentially registering with Supply Nation with the products and services that they will offer, which can be selected from a range of options).

It was also identified that there are Indigenous employment opportunities in extended value chain activities such as management of agricultural land owned by mining companies. These were acknowledge as potential training opportunities as well, so that knowledge could be translated to Indigenous properties.

5 Economic viability assessment of several potential options

To determine the best mix of products and services that could be offered by a 'Blackfella Beef' value chain it is important to assess which potential products can be produced and provided in an economically viable manner. The offer of products and services along the value chain are varied as identified in previous chapters. This chapter looks at the economics of supply chain activities.

5.1 The economics of cattle production

The costs of cattle production can be determined with the aid of the MLA costs of production calculator and it would be advantageous for 'Blackfella Beef' to encourage Indigenous property owners to be mindful of balancing quality with costs of production. Training in usage of these calculators, where needed, could be a component of the property management workshops.

On surveying several cattle (not necessarily Indigenous) properties, it was found that the most efficient properties had costs of production of $\leq \$1.00/\text{kg}$ of liveweight. In order to be productive, and ensure adequate value add further along the supply chain it is important to get the costs of production within suitable ranges (Figure 25).

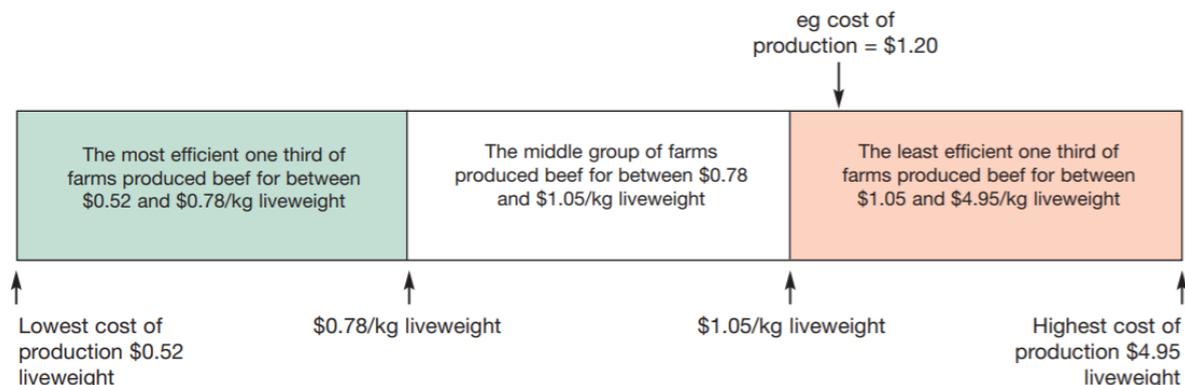


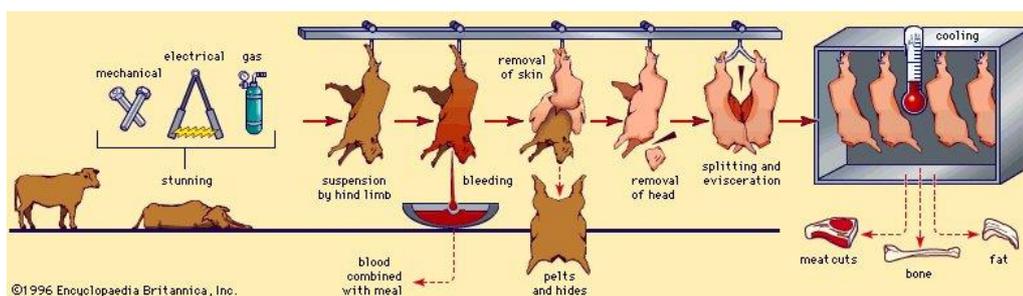
Figure 25: Typical costs of production of cattle and the cost ranges that will have the best (green), moderate (white) and least (red) efficiency. From Meat and Livestock Australia, 2019.

The reason for aiming for costs of production of $\leq \$1.00/\text{kg}$ of liveweight is that sometimes the lowest value of cattle sold at a saleyard can get close to $\$1.00/\text{kg}$ liveweight. In order to have a suitable margin, and be financially viable it is necessary to have a production cost lower than the cattle sale price. Cattle sales at Queensland saleyards over the last year, October 2018-October 2019 indicated that the lowest $\$/\text{kg}$ lwt across all cattle types and yards was $\sim \$0.60 / \text{kg}$ lwt.

The predominant value of cattle at Saleyards was $\sim \$2.00-\$3.00 / \text{kg}$ lwt. If assuming a typical beast weight of 400-450 kg, then typical beast value could range from $\$800 - \1350 per beast.

5.2 The economics of abattoir processing

Several activities occur during abattoir processing, each of which adds extra value (or costs) to the beef value chain (Figure 26). It is also important to bear in mind that for cattle to be processed through particular abattoirs they may need to be from MSA licensed producers and of appropriate quality. Once a beast has been processed into a carcass and, subsequently, several different primal and sub-primal cuts, the value has been significantly increased. However some cuts and items from the carcass are more valuable than others (Table 11).



	Receive	Slaughter/Dressing	Shrinkage	Deboning	Transport
Weight (kg)	500	265	257	175	175
Value/cost (\$AUD)	500	865	865	968	1003
Value (\$/kg)	\$1.00	\$3.26	\$3.37	\$5.53	\$5.73

Figure 26: Abattoir activities and estimate of value chain tracking through the abattoir. From English and Greenwood, 2019.

Also for consideration by 'Blackfella Beef' and the Indigenous properties, is checking the costs of any required accreditations and licensing to ensure that their cattle can be processed at accredited abattoirs.

5.3 The economics of post-processing into meat cuts

For 'Blackfella Beef' to be economically viable, identification of post-abattoir processing strategy is key. The logistics of how this might work, including location of butchers and/or processors with respect to cattle property locations, as well as targeting meat products of value is of importance to optimise value. During project investigations it was acknowledged that setting up independent 'Blackfella Beef' processing sites may be costly due to capital investment, so potential partnerships where brand ownership is retained, or at the very least co-branding can be done, were identified.

Several beef cuts can be obtained from primal and sub-primal cuts (Figure 20), however quality of the cuts is also to be considered, particularly due to the type of cattle present on Indigenous properties. It was identified that the value proposition is the 'Blackfella Beef' brand and story combined with the quality level of the meat products, not just the meat products alone. The saleable products are identified in Table 11. Some assumptions to support this data analysis include:

- One carcass produces two sides of beef, which weigh approximately 104 kg each (103.85 kg was exact figure used)
- The cost of breaking down into the individual cuts was assumed to be \$6.60 / kg of cut
- Sale price of cuts was checked against usual retail outlet pricing – e.g. supermarkets and butchers.
- Saleable meat does not include the neck bone or fat & bone cuts

Table 11: Cost and Profit analysis of Beef cuts from one side of beef

Beef cuts	Percentage of carcass	Weight of cuts from one side of beef (kg)	Cost to process cuts (\$AUD)	Sale price of cuts (\$AUD/kg)	Revenue from each cut (\$AUD)	Profit from each cut (\$AUD)
Rib fillet	3.37%	3.495	\$23.07	\$36.00	\$125.82	\$102.75
Chuck	3.83%	3.975	\$26.24	\$16.00	\$63.60	\$37.37
Brisket	7.40%	7.69	\$50.75	\$14.00	\$107.66	\$56.91
Blade	5.61%	5.825	\$38.45	\$18.00	\$104.85	\$66.41
Neck bone	1.61%	1.675	\$11.06	\$2.40	\$4.02	-\$7.04
T-Bone	5.47%	5.685	\$37.52	\$24.00	\$136.44	\$98.92
Topside	6.46%	6.710	\$44.29	\$15.00	\$100.65	\$56.36
Silverside	5.56%	5.770	\$38.08	\$8.00	\$46.16	\$8.08
Rump	4.25%	4.410	\$29.11	\$18.00	\$79.38	\$50.27
Knuckle	3.68%	3.820	\$25.21	\$8.90	\$34.00	\$8.79
Butt fillet	0.87%	0.900	\$5.94	\$36.00	\$32.40	\$26.48
65 CL Trim	10.63%	11.040	\$72.86	\$5.40	\$41.95	-\$30.91
90 CL Trim	13.91%	14.445	\$95.34	\$7.50	\$65.00	-\$30.33
Fat & Bone	27.36%	28.410	\$187.51	0.01	\$0.28	-\$187.22
Total	100%	103.85	\$685.41		\$942.22	\$256.81

1. Sale price of cuts was taken from retail pricing during October 2019
2. Saleable meat yield is ~74 kg (73.77 kg)
3. The overall price of saleable meat is ~\$9.30/kg

The pricing in Table 11 does not take into account any special flavoured items sold as 'boutique' products, which could potentially be more profitable. For example, the trim items showing here as non-profitable items could be used in special flavoured patties, rissoles or sausages, for a higher price. One good example are 'Outback Spirit Beef & Mountain Pepper

Sausages' sold in Coles supermarkets at a price of \$14.40/kg. Pricing like this helps items like trim become profitable.

5.4 The economics of shelf-stable products

The initial analysis has shown considerable potential for 'Blackfella Beef' to develop a high value shelf-stable range of products over time. In this section, we discuss two beef product categories, beef broth and beef snacks.

Product concepts were explored for chilled and shelf stable options that incorporate native bush foods. Australian bush foods flavourings had strong appeal to potential consumers that were interviewed. Traditional medicines are of considerable interest to Asian consumers and provide a natural flavouring for the 'Blackfella Beef' products. Exploring the complementarity of bush food harvesting with cattle management practices could benefit the development of the 'Blackfella Beef' range of products. This would enable ownership across a greater part of the 'Blackfella Beef' product additives and provide another source of property income.

The cost analysis for more shelf-stable products derived from beef is based on four products, beef snack bars, beef bone broth, beef bone broth powder and sous vide meat packs.

5.4.1 Beef snack bars

In this section, we discuss protein bars - snacks – made from ground beef, bush foods and other ingredients and we include discussion about similar products and customers. These are shelf-stable products that can appeal to a wide range of consumers from gift packs through to energy bars for the military, refugee camps and remote Indigenous communities. They can be produced in various packaging to suit different markets – e.g. high-end Chinese gifts or plain military bars. This is followed by a discussion of other product development options that have been highlighted by students and fit within the scope of the 'Blackfella Beef' range of products.

As a general rule of thumb 3kg of "wet" meat will produce 1kg of "dry" jerky (Kooee!, No Date). A typical jerky loses half of its starting weight in moisture, so 2:1 is the proper ratio. "Low moisture" jerky can actually be 1/3 the starting weight, a 3:1 ratio. Therefore, 2-3 kilograms of beef will make 1 kilogram of jerky.

Below is a list of cuts of meat that work very well for beef jerky.

- Eye of Round – Going to be the most popular cut for making jerky. The most tender of the Rounds. This is a single oval muscle in the rear leg. Lean, Little interior fat, Need to trim the fat cap, Grain runs the length of the cut for easy slicing with or against the grain.

- Bottom Round – Another great choice for making jerky. It is the outer muscle of the upper rear leg. This is the least tender of the rounds · Lean, Possible interior marbling, Flavorful.
- Top Round – Very similar to bottom round. The top round is cut from the inside leg muscle, opposite of the bottom round. This cut is more tender than the bottom round and less tender than the eye of round. Lean, Flavorful.
- Sirloin Tip – Second Most tender of the rounds. Not as popular, but still a very good piece of meat for making jerky. Very Lean, Most tender, A little more expensive.
- Flank Steak – More expensive than the rest but still a great meat for jerky. If sliced with the grain, your jerky will be extremely tough. Lean (need to trim some fat), More interior marbling, Flavorful, Can be a tougher jerky (Jerkyholic, 2015)

The costs below are outlined from a production perspective and then compared to typical retail costs of similar products. The main costs included were the cost of raw materials (ingredients), processing cost, labour cost and packaging cost. The cost per kg refers to the cost of product produced. It does not yet include any overhead type costs, as these may vary based on the organisation.

The costing for beef snack bars is shown in Figure 27 and ranges from approximately \$30-\$80/kg of beef bars produced. This is driven mostly by the cost of ingredients, and was based on value of meat cut used, as well as the cost of native foods as ingredients for seasoning the product.

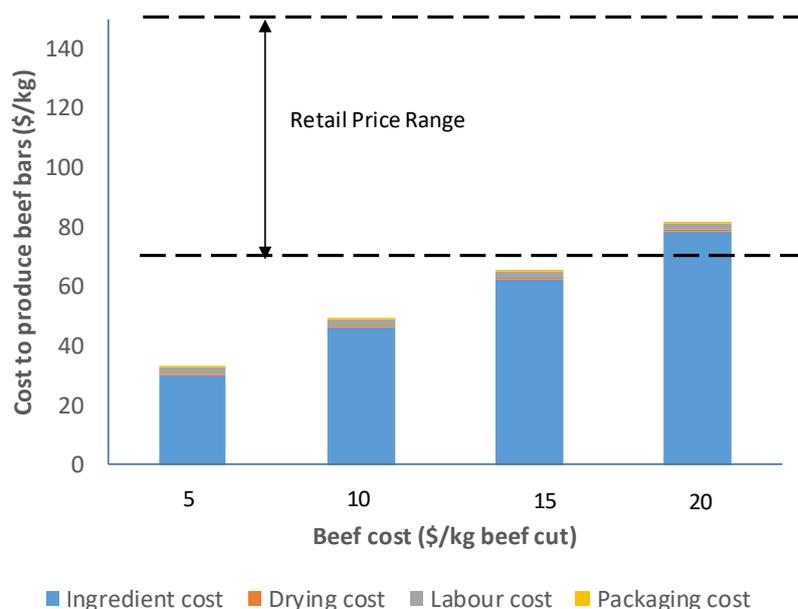


Figure 27 The costs of production for beef bar products as a function of beef cut cost.

An example of a process for producing such a product is outlined in Appendix F. The retail value of similar products ranges from approximately \$100-\$150/kg as per Table 7 [Tanka bar was most expensive (buffalo), while cheapest was Julian Bakery]. This gives a maximum margin for profit ranging approximately \$8-100/kg of product. The margin may be less to account for overheads, distribution and marketing, as well as other sundry costs.

If using native food products as seasoning this does drive up the ingredient cost and with this model, it is not possible to be profitable if the meat cuts cost $> \sim \$15-16/\text{kg}$, which rules out some beef cuts. This may be more profitable if seasoning costs are reduced.

5.4.2 Liquid beef bone broth

The costing for liquid beef bone broth is shown in Figure 28 and ranges from approximately \$3-\$7/L of broth produced. This is driven mostly by the cost of ingredients and labour, and was based on value of beef bone used and the cost of native foods as ingredients for seasoning the product.

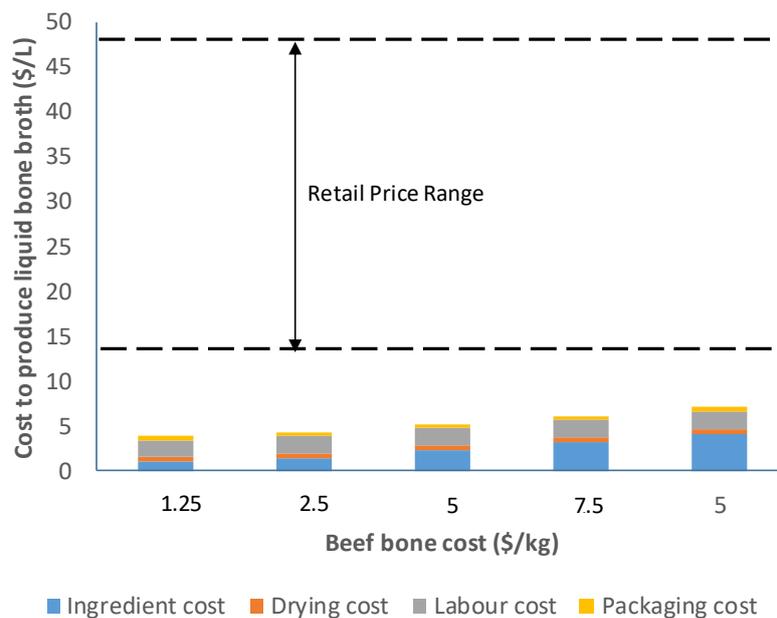


Figure 28: The costs of production for liquid beef bone broth products as a function of beef bone cost.

An example of a process for producing such a product is outlined in Appendix F. The retail value of similar products ranges from approximately \$14-\$48/kg as per Table 6 [Kettle and Fire was most expensive, while cheapest was Campbell's]. This gives a maximum margin for profit ranging approximately \$7-44/L of product. The margin may be less to account for overheads, distribution and marketing, as well as other sundry costs

5.4.3 Beef bone broth powder

The costing for beef bone broth powder is shown in Figure 29 and ranges from approximately \$20-\$30/kg of broth powder produced. This is driven mostly by the cost of spray drying broth into powder.

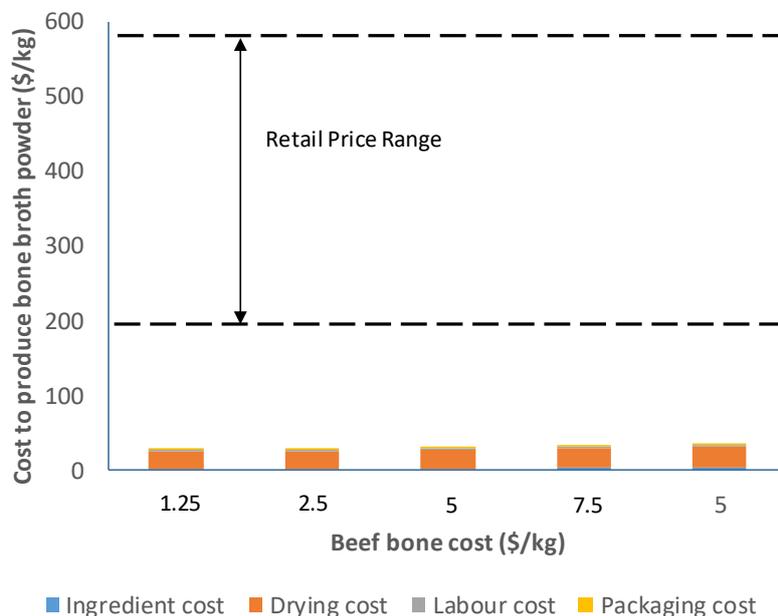


Figure 29: The costs of production for beef bone broth powder products as a function of beef bone cost.

An example of a process for producing such a product is outlined in Appendix F. The retail value of similar products ranges from approximately \$200-\$590/kg as per Table 6 [Broth of Life was most expensive, while cheapest was Broth & Co]. This gives a maximum margin for profit ranging approximately \$170-180/kg of product for the cheapest version of bone broth powder. For the most expensive version it was ~\$560/kg which seems exceedingly high. The margin may be much less to account for overheads, distribution and marketing, as well as other sundry costs.

5.4.4 Beef sous vide packs

The costing for beef sous vide packs is shown in Figure 30 and ranges from approximately \$8-\$20/kg of sous vide packs produced. This is driven mostly by the cost of ingredients, and was based on value of meat cut used, as well as the cost of native foods as ingredients for seasoning the product. An example of a process for producing such a product is outlined in Appendix F. It is difficult to come across retail sous vide packs as these are more often used in foodservice. Depending on beef cut of choice, this may indicate that pricing should be >\$15-20/kg.

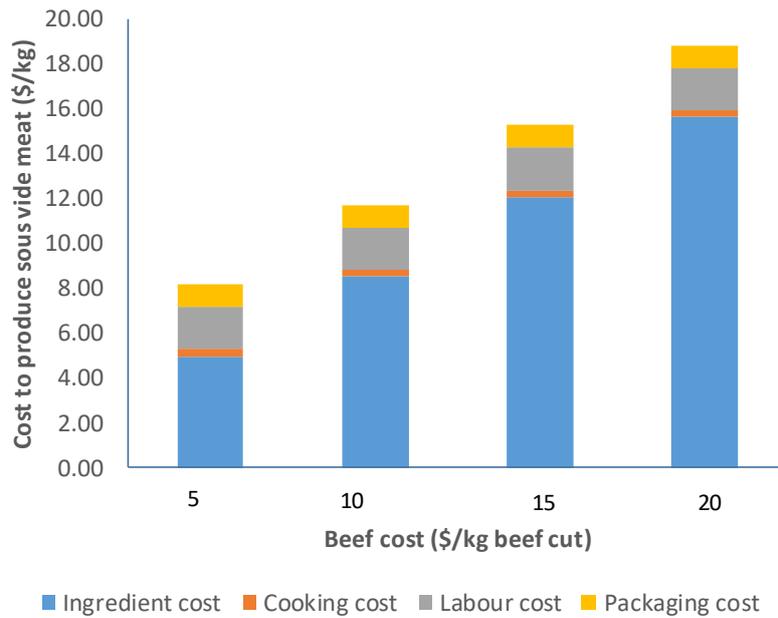


Figure 30 The costs of production for sous vide beef products as a function of beef cut cost.

The above section provides an overview of some of the options being considered by the ‘Blackfella team’ to optimize carcass revenue. The approach of developing minimum viable products (MVPs) such as an initial 4 key product ranges is now being explored for in-market test launch. At this stage, 20 head of cattle are being considered for an initial July NAIDOC week launch from selected group of carcasses to produce approximately 2MT of:

- * ‘Blackfella Beef burgers’ (using 80CL block trimmings and slashed primals)
- * ‘Blackfella sandwich steaks’ (using thinly sliced loin and leg primals)
- * ‘Blackfella sausages’ (using 70CL block trimmings and slashed primals)
- * ‘Blackfella diced meats’ (using lean leg and shoulder primals, cubed)

6 Supply chain strategy to execute scale up

In the next section, we outline potential supply chain strategy based on findings during this project relating to supply chain collaborators that would match the vision and goals of 'Blackfella Beef'. Firstly, we outline a supply chain pathway schematic that would target the opportunities outlined in previous chapters, and then the logistics of how to enable such a pathway is discussed. The logistics discussion is framed within the context of potential supply chain collaborators identified during this project. and their locations with respect to the 'Blackfella Beef' Indigenous properties.

6.1 Theoretical supply chain pathway

Earlier, Figure 24 outlined a typical supply chain pathway, but only considered pathways for abattoir and butcher processed products. It did not overtly include any value-added secondary processed products, such as shelf-stable products. Here we propose a potential supply chain pathway for a range of 'Blackfella' beef products (Figure 31). The focus here is the material flow through the supply chain. We have added the inclusion of bushfoods being part of the supply chain. Production and/or harvest of bushfoods could be an extended value chain activity for 'Blackfella Beef' that enters the core value chain.

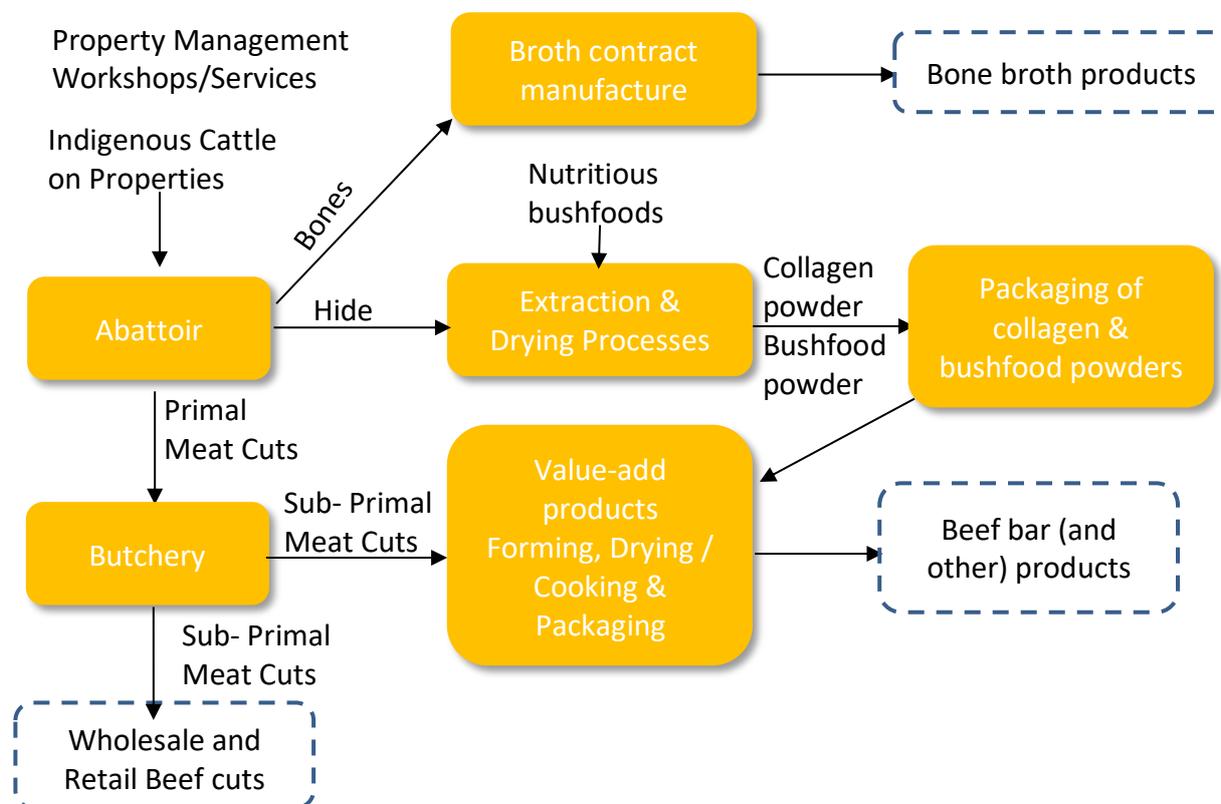


Figure 31: Potential pathways for Indigenous beef product processing

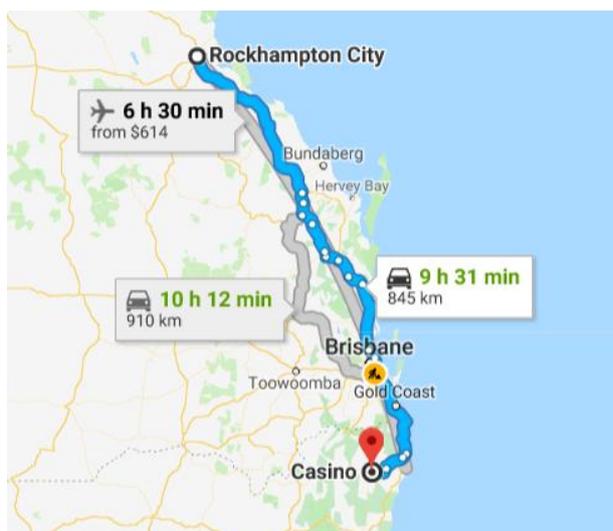
In the logistics section that follows, we identify how such a pathway may be established with collaborators, and physically constructed.

6.2 Property-to-abattoir logistics

The cattle could potentially be aggregated at Rockhampton, or at Foleyvale station owned by the Woorabinda Pastoral Company. The logistics of transport from Rockhampton are better defined, so we can begin with that scenario. There are a number of options associated with the potential transport of 'Blackfella Beef' live cattle from Rockhampton, Queensland to Southern Queensland or Northern NSW to an abattoir processor. The variations are attributed to the vehicle type, associated trailers and road train restrictions in both Queensland and New South Wales. The economies of scale produce cost advantages per head, where cattle in excess of 75 head are transported in one load.

The following analysis is provided using Casino as a case study. When considering freight transport between Rockhampton and Casino, there are additional complexities in the road train restrictions that require further consideration, as some vehicle configurations are not permitted on certain segments of the most direct transport route (Queensland Government, 2018; New South Wales Government, No Date). With this in mind, the following assumptions are made:

- Only 75 head of live cattle need to be transported at any time.
- Each head of cattle weighs between 400 and 450 kilograms.
- Transport from Rockhampton, Queensland to Casino, New South Wales.



Option 1 – Transport utilising one B-Double. A 'B-Double' is a Class 2 heavy vehicle consisting of a prime mover towing semi-trailers. The first semi-trailer is attached to the prime mover by a fifth wheel coupling, while the second semi-trailer is connected to the first semi-trailer by a fifth wheel coupling on the first semi-trailer. A B-Double vehicle is permitted to travel on the most direct 'coastal route' between Rockhampton and Casino (Figure 32).

Figure 32 Rockhampton to Casino – direct 'coastal route'

The utilisation of one B-Double allows the use of the most direct transport route, 845km (Figure 32). The estimated cost for transporting cattle live according to the above assumptions is \$5159 (including GST).

Under this scenario, a B-Double configuration typically includes:

- One A trailer loaded with 12 head of cattle on top deck, and 12 head of cattle on lower deck
- One B trailer loaded with 13 head of cattle on the top front deck, 13 head of cattle on the bottom front deck, 12 head of cattle on the top back deck, and 13 head of cattle on bottom back deck.

This vehicle configuration allows transportation of 75 head of cattle in one load. The transport cost equates to approximately \$68.79 per head.

Option 2 – Transport utilizing a Road Train.

Using a Road Train, requires an inland route via Miles to Toowoomba, followed by a cattle transfer (cross loading) to a B-double for the Toowoomba to Casino route, 899km = \$6922 (including GST) (Figure 33). This option requires the cattle to be in transit for a longer period. Additionally, there are road train restrictions on the transport segment between Toowoomba and Casino.

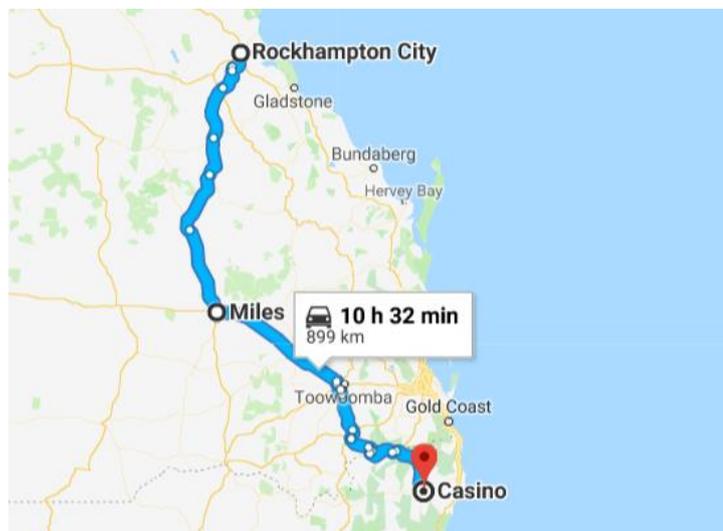


Figure 33 Rockhampton, QLD to Casino, NSW ‘inland route’ via Miles.

For this reason, cattle transported in this vehicle configuration will need to be transferred (cross-loaded) to a vehicle that complies with the restrictions. This cross loading would occur at Toowoomba.

Cross-loading (transferring) cattle between road trains is considered one of the most dangerous activities along the cattle transport supply chain, exposing workers to risks such as injury from falls from heights, crush injuries when working in tight spaces with unpredictable and large livestock and driver fatigue (Queensland Government, 2016). There are also risks associated with the health and wellbeing of the cattle. During a cross loading procedure,

cattle may become agitated from increased noise, heat, and light or from unfamiliar surrounds or from low skilled handlers, all of which increase the risk of injury to the people and cattle involved.

In this scenario, a road train typically consists of two B Trailers - [1 B trailer: 13 head on cattle top front, 13 head of cattle bottom front, 12 head of cattle on top back, and 13 head of cattle bottom back] multiplied by two. This vehicle configuration allows the transport of 102 cattle on the road train. While the total cost is higher than option 1, the increased capacity (102 cattle) means that the transport per head is reduced to \$67.89.

Transport to Brisbane by pallet. 1 Australian pallet (without cargo) weighs approximately 20 kilograms and will hold 40 cartons of meat at 20 kilograms per carton (meat packed 15kg and 18kg). Total weight (pallet plus cartons) equals 820 kilograms. The pallet is transported under refrigeration and the consignor has packaged the freight according to transport requirements mentioned above.

Future Transport. During this project, it was also identified that there are plans to build an abattoir in the region near the Indigenous cattle properties, and this could assist in shortening the logistics path to the abattoir (Northern Australia Infrastructure Facility, 2019). The proposed site is near Clermont, which considerably shortens the transport path to ~300 km, and by comparison, has the potential to reduce transport costs from Foleyvale Station near Duaringa to one-third of the costs to transport to Casino, due to the much-reduced distance (Figure 34).

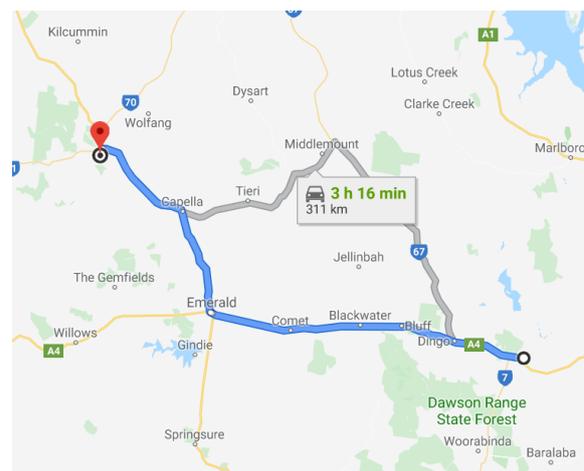


Figure 34: Potential future transport path to abattoir

‘Blackfella Beef’ has a draft MoU being developed to investigate this opportunity. The location of such a facility would also shorten the distance to customer as well to make the most of the North Queensland tourism market and the mining market.

An extra opportunity was identified with the commencement of mobile abattoir operations by ‘Provenir’ in 2019. Given the remote nature of the properties, and the small number of cattle to be processed to begin with, this could also be an option in the early stages of establishing the Indigenous beef value chain. This could also easily enable return of some of the meat to the Indigenous community immediately.

6.3 Abattoirs and processors

We spoke to a number of companies that provided information on their operations. Much of the information was commercial in confidence so we present here an outline of the type of operations and issues raised.

6.3.1 Abattoirs

A review of four abattoirs in Southern Queensland / northern NSW showed that each offered different services and business options and had varying levels of interest in trading with 'Blackfella Beef'. All abattoirs had a range of certification systems, were internationally accredited, and provided full traceability from kill through to boxed beef. All abattoirs were within 200km of Brisbane and therefore a similar distance from Central Queensland (see analysis below).

One abattoir was interested in providing a feedlot service to enhance the weight but the economic benefits of the cost of the feedlot (over supplying direct to abattoir) were not apparent for 'Blackfella Beef' cattle given their genetics. One abattoir was interested but requested full ownership of the brand if their marketing channels were to be utilised. While another abattoir was not interested in service kills. All abattoirs provided dressed beef and trims, either chilled or frozen and boxed and/or vacuum packed. Bones and offal were not included in the end products to customers. **It was identified that in order to fit the ethos of an Indigenous 'Blackfella Beef' value chain, the abattoir selected would need to support and enable brand ownership, which was usually possible through a co-operative setup. One of the abattoirs showed promise in this regard.**

Discussions included the relative benefits of genetics improvements and feedlot vs working with the current stock and optimising supply chains and tailoring products to suit the grade of beef. Discussion also addressed the 'Blackfella Beef' name. Initial responses were negative, but a deeper understanding of the context provided a more positive response. However, there was universal agreement that the 'Blackfella Beef' name would not work in the USA and that a strong story was needed to explain the context behind the name.

Processors and distribution business such as catering companies are generally supplied with chilled beef directly from the abattoirs. The beef is usually supplied in boxes of various cuts. The boxed cuts are further processed into smaller cuts, and prepared for clients. In the case of the catering companies that supply mining sites and other institutions, this means delivering the ordered cuts to commercial kitchens that will then prepare the meals.

As an example a catering distribution company, which is a national distributor of meat, supplies a wide range of restaurants and catering companies. One of the catering companies they supply to in Australia is a global company and is the largest of the Australian catering

companies. They have a strong footprint in the mining sector. They supply boxed meat cuts to their catering sites and then prepare meals for the clients. This global catering company is a member of Supply Nation and they are keen to explore options to include Indigenous food products. These businesses purchase the boxed beef directly from the abattoirs.

Most beef product processors operating in Queensland have government approved export accredited facilities and quality systems to produce formed meat products. Assuming the raw beef feedstock for processing comes from export accredited abattoir facilities, quality standards and export market access can be maintained along the entire supply chain. This allows them flexibility with market access for products nationally and internationally. Several Queensland beef processors also have quality and safety testing onsite, and are certified for national Australian organic, USDA organic and halal production. Options are available to deal with processors who are also a socially responsible, equal opportunity, affirmative action employer. They are very open to working with Indigenous communities on development of products from concept to finished product.

The cost of production is typically dependent on product requirements from raw beef and ingredients to finished frozen and packed product. With formed beef products, there is potential to then transport product to be further processed in the form of cooking or drying into snack products. This can be done a cooking or drying facility.

The number of additives, and the number of processes - transport / storage / processing – and the types of packaging determines the end cost. For example, Figure 31 shows the processes that would be utilised if the product were to be ‘minced’ and then dried / cooked as protein bars or formed into beef patties or other minced beef products. An example of a company that produces freeze-dried foods is Freeze Dry Industries. They are a technology-based company focused on producing freeze-dried foods, specifically for nutritious snack markets for both people and pets. They have the capability to do a wide range of contract manufacturing to produce freeze-dried beef snacks and other dried items. They have a strong product development focused ethos and are happy to collaborate with other entities to produce high value products.

Discussions about product development opportunities with government programmes, such as FIAL and Queensland Department of Agriculture focused on grants and research partnerships. For a future Northern Queensland supply chain, it was also identified that for small volume, high value beef products that there were facilities located in Rockhampton for product development and small batch runs of product. Local government entities are keen to support the ‘Blackfella Beef’ supply chain by providing access to these facilities.

7 'Blackfella Beef' brand and marketing strategy

In order to have the best chance of success, it is of prime importance that positive recognition of the Indigenous beef value chain brand(s) occurs. Recognition may be related to several aspects such as the brand name, its positioning in the market, the product lines and promotion of any collaborations and/or sponsorship. With a strong brand identity, this can support the marketing strategy.

7.1 Brand strategy

Several key branding decisions were made prior to, and at commencement of this project, but refinement of these decisions occurred during the project. Four key components of the brand were identified (Figure 35).



Figure 35: Brand decisions that affect brand characteristics

7.1.1 Brand definition and positioning

Indigenous branded products, marketed as 'Blackfella Beef' ('Blackfella Beef'), are a concept that was developed collaboratively by the Western Kangoulu Indigenous Group with Growing Central Queensland (GCQ) and members of Wangan Jagalingou (WJ). The 'image of the brand is to promote the history of the Australian Indigenous Stockman and bring it into current contemporary management of cattle properties.

Attributes

A major attribute of the brand is sustainability and support of Indigenous communities. The vision of 'Blackfella Beef' is to recognise the 60,000 years of connection and interdependence

that Aboriginal and Torres Strait Islander people have for the land. Indigenous properties supplying 'Blackfella Beef' will manage land based on respect and ensure that the land sustains and provides for the people manage and sustain the land through culture and economy.

Another attribute of the brand is to recognise this rich history of Indigenous property management. The brand recognises this history, and the invaluable contribution of Indigenous stockmen that opened up the outback. The history of the Australian Pastoral Industry includes the voices and images of the Australian Indigenous Stockman as ringers, stockmen, jackaroos, camp cooks, drovers, fencers, shearers and saddlers.

Finally, the brand emphasises the symbiosis of Indigenous peoples with the land and its creatures. 'Blackfellas' have a unique oneness with land and animals and continue to provide their indelible spirit to the Australian Pastoral Industry. 'Blackfella Beef' provides opportunity for the future, with increased economic opportunities including showcasing Indigenous inspired and flavoured Beef to the Australian Menu.

Values and Benefits

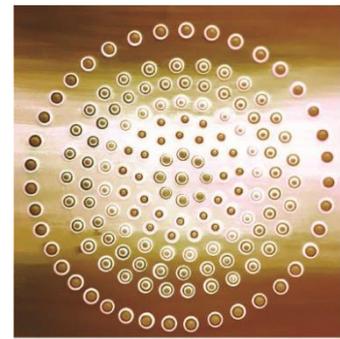
The purpose of this brand was to establish an Indigenous beef value chain that aligns with Indigenous culture, and supports Indigenous business development and employment across the whole value chain. To support social development, there are several goals, which were identified and included:

- Increased employment for Indigenous people throughout the supply chain
- Increase in the number of Indigenous social and profit-making enterprises
- Increased in Indigenous entrepreneurial opportunities aligned with 'Blackfella Beef' for example, in the tourism sector
- Improved education of Indigenous people by increasing the number of food, agricultural, and logistics scholarships at schools and universities to support the development of the beef value chain.

Consumer analysis has indicated that 'Blackfella Beef' products with a story, bush foods and social enterprise connections – such as supporting employment on cattle properties – has a strong appeal to consumers.

7.1.2 Brand name selection

The brand name 'Blackfella Beef' was selected by the Western Kangoulu group prior to project commencement to represent the Indigenous involvement in the value chain. During this project, the name was tested against different stakeholders throughout the supply chain, including potential customers. There were concerns raised during these discussions about the potential for the name to cause offense, however this was usually raised by non-Indigenous interviewees.



Blackfella Beef

The WK team explained that in their discussions the name caught a lot of attention, and often with an initial concern about the name. Non-Indigenous interviewees were concerned that they may cause offense if they said the name. However, the attention also offered the opportunity to explain the premise behind 'Blackfella Beef', and many of the enterprise and education goals tied into the 'Blackfella Beef' concept. Stakeholders were positive about the values embodied by the brand. The brand name was trademarked during this project to protect it.

Investigations during the project, discussed strategies where 'Blackfella Beef' may be the 'umbrella' brand, and the products and services branded with other names under this brand, with one suggestion being 'Murri Yuri', potentially a less controversial choice. However one of the difficulties raised by WK is that there are many Indigenous languages, so it may be necessary to carefully consider universal brand name options that use Indigenous phrasing.

7.1.3 Brand sponsorship

Western Kangoulu are very mindful of retaining brand ownership of 'Blackfella Beef' and hence it is important that it is not 'muted' under a manufacturer brand. Dependent on the product type, there is room to co-brand with other entities. One example deployed during this project were the pilot property management workshops that were supported by other entities as outlined in Appendix E.

WK are happy to partake in collaborative ventures, as long as majority Indigenous ownership is maintained of branded products and services. Brand sponsorship by other entities can help to create a 'win-win' situation where larger entities support Indigenous enterprise, gaining kudos, and creating a positive collaborative relationship. It has been identified that this could be possible with some of the companies interviewed during this project, particularly those who already have Indigenous Procurement Plans, as well as other Indigenous-friendly enterprises. WK will work to further establish these relationships in future.

The team identified some cultural events where it would be good for 'Blackfella Beef' to have a presence, such as National NAIDOC week, National 'Close the Gap' day and other events. As in 2018, it was considered also of importance to retain a presence at 'Beef Week'. Part of this involvement could involve sponsoring by providing 'Blackfella Beef' meat products during these events. In order to make the most of these opportunities, it is best to have a sound marketing strategy.



Logo from <https://www.naidoc.org.au/>

7.1.4 Brand development

As there have been a broad array of potential 'Blackfella Beef' products and services identified, it was considered strategic to consider what the future of the brand may look like. While the core aim was to ensure a whole Indigenous beef value chain, how this may be deployed was considered to have multiple approaches. This could be realised as common Indigenous branding across disparate Indigenous groups / communities but this could also be realised as:

- Multiple brands across the different elements of the supply chain (Property management, Production, Processing, Retail etc.) with an overarching 'Blackfella Beef' brand.
- There may be scope to have different brand identities in each Australian state tied to the local Indigenous groups, which may include different Indigenous word choice to tie into the local language.
- Branding identity may also depend on where sufficient product aggregation occurs in the supply chain, which may be at production, processing or sales points.

Thus it was identified that there may be a combined strategy composed of multibrands, line extensions and brand extensions, with new brands under the main 'Blackfella Beef' brand developed over time.

7.2 Marketing strategy

To ensure the best chance of success for 'Blackfella Beef', a sound marketing strategy is required, highlighting the attributes and benefits of the brand. To develop such a strategy there are several key considerations (



Figure 36).



Figure 36: Marketing Strategy Considerations

Goals

The goals of the brand have been identified previously, but also some of the potential ‘success measures’ were also identified earlier in this report (Figure 5). One important goal for ‘Blackfella Beef’ are to capitalise on brand awareness initiated during this project, and transfer this into sales later on after further product deployment. It would be advantageous to determine some timeframes for these goals.

Target Audiences

A range of potential target markets and customers for different ‘Blackfella Beef’ products and services were identified (Table 12). Indications are that there will be a very high demand for Indigenous food products, which will far outstrip production capacity. As Australian Government institutions and many corporations are increasingly developing Indigenous procurement policies and Indigenous employment opportunities, there is growing market potential for ‘Blackfella Beef’.

Launching from this project, it would be beneficial to further refine the ‘personas’ of potential customers and determine how the brand matches with their needs and interests. This will help drive what the strategy may be in marketing to these potential customers. Some of these groups were identified earlier in this report, when focusing on supply chain collaborators as well as who their consumers were. There is particularly great potential to make the most of the tourism, mining and defence markets.

Table 12: Potential ‘Blackfella Beef’ food products and services

‘Blackfella Beef’ Products		
Premium cuts	Table cuts	Trim cuts & bones
Indigenous chefs Restaurants Indigenous beef experiences (BBQ)	Catering, mining, army, airlines, universities etc. Ingredients – ready to eat meals and sou vide Cooked/chilled Baby/toddler gourmet Meal kit service market	Dried snacks Jerky Protein balls Protein bars Bone broth powder Broths/beverages Bone broths Bone broth shots Soups Casseroles Stews/hotpots Sous vide
Hide - Leather products Coin purse /wallet ‘Blackfella Beef’ hat Collagen products		
Services: Property and herd management services to Indigenous owned properties across northern Australia Tourism ‘Blackfella Beef’ cooking demonstrations (live or virtual) ‘Blackfella Beef’ bush food tours to show bush tucker and ‘Blackfella Beef’ souvenir pack (spices, jerky, biltong, hat) Website – ‘Blackfella Beef’ stories about cattle management and Indigenous Australia		

Competitor Analysis

Currently there is no precedence for a full Indigenous beef value chain in Australia. Hence the competitor analysis for 'Blackfella Beef' should focus on competitor products identified in this report (e.g. Table 6 and Table 7), as well as suppliers who may be potential competitors (e.g. foodservice, etc.). There may also be scope to instead, collaborate with competitors via a contract manufacturing approach, and some of these companies have been identified during interviews. 'Blackfella Beef' now has more of an overview of potential products, and what may return the most value, based on competitor products and performance.

'Blackfella Beef' story

One of the strengths of the brand is the 'story'. Indigenous culture has a long history of storytelling and this is advantageous for sharing this story with potential customers. During this project, it was found that face-to-face discussions were beneficial for sharing of the story of the brand, as well as the goals, and potential future products and services of 'Blackfella Beef'. This was one of the most positive ways to market the brand to potential customers and collaborators and it is ideal that WK continued to build momentum through story sharing. To this end 'Blackfella Beef' have established a website for the brand (<https://blackfellabeef.com.au/>) (

Figure 37) which will continue to be developed and shared.

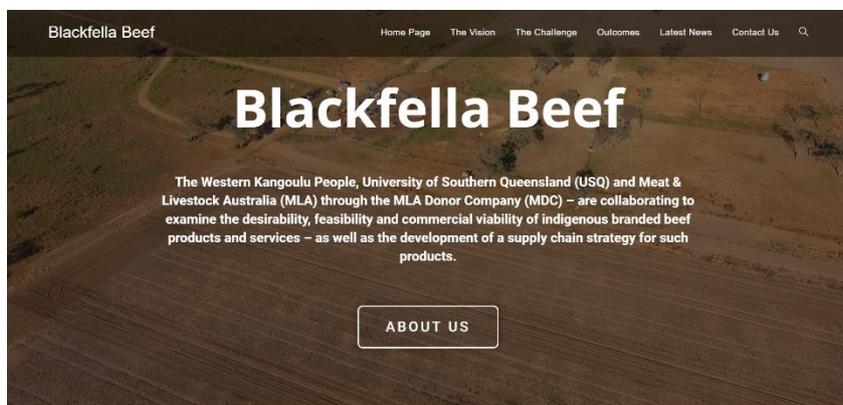
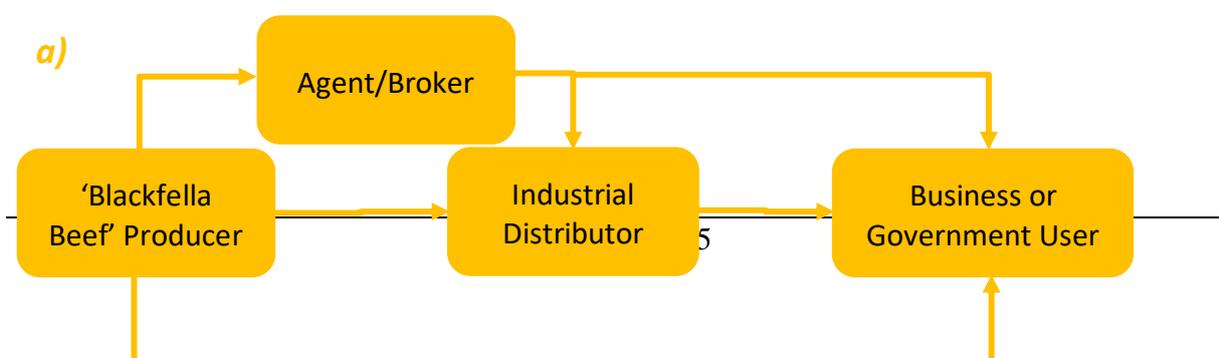


Figure 37: 'Blackfella Beef' website landing page (homepage)

Marketing and Sales Channels

There are several options for marketing and sales channels for 'Blackfella Beef', and during this project, the team identified a few different approaches (mixed strategy) for how these may work together. There are several pathways possible for both B2B and B2C strategies (Figure 38).



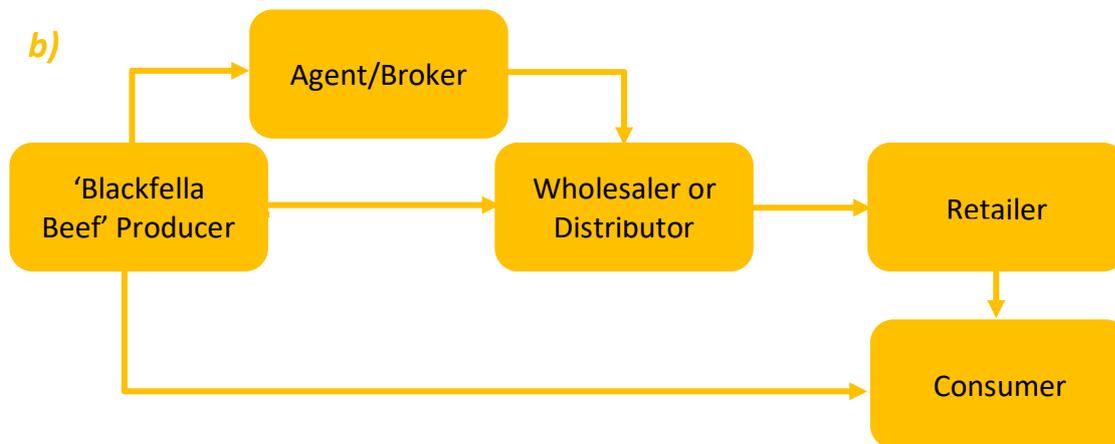


Figure 38: Marketing and sales channels for 'Blackfella Beef' for a) B2B channels and b) B2C channels

In earlier chapters, it was identified who the different entities may be, particularly Industrial Wholesalers/Distributors (e.g. abattoirs, food processors, foodservice agencies), Business or Government Users (e.g. those who have Indigenous Procurement plans or are 'Indigenous-focused'), Retailers (e.g. shops and tourist attraction sales) and Consumers (tourism, military and mining markets). As part of an extended value chain channel it was also identified that 'Blackfella Beef' producer activity could be supported by farming on reclaimed mining land, which mining companies seemed eager to support.

Strategic Planning

Planning will involve structuring of marketing activities to take advantage of opportunities regarding collaborative partnerships, social media deployment, advertising etc. It is necessary to also during the marketing planning phase to develop a marketing budget and determine how best 'Blackfella Beef' can distribute this for the best 'reach' and 'return'. Currently the main marketing channels are the website and word-of-mouth, which is highly dependent on the sustained activities of the WK members in this area of the project. For future planning, a concerted approach to maintain the momentum of brand awareness is needed and more WK members may be required. Further capitalising on digital channels, particularly in light of the large area covered by potential 'Blackfella Beef' properties, is required.

Optimisation

Once the initial marketing strategy has been properly deployed, it is important that this is monitored and optimised by WK to maintain the 'Blackfella Beef' brand, products and services. Initial marketing of pilot workshops in property management has been successful,

such that two such workshops were deployed in the latter half of this project. The next phase would focus on developing cattle supply to abattoirs, and then marketing of related products and services.

8 Assessment of franchise/licensing opportunities across Indigenous communities

It was acknowledged by the team that to set up a broad 'Blackfella Beef' supply chain, this might involve licensing or franchising of the brand and its products and services across many indigenous communities. The focus of this study was on Northern Queensland, however the concept could potentially be deployed nationally with interested Indigenous communities.

Once the umbrella brand 'Blackfella Beef' is more firmly established, there are a range of opportunities in the different sectors (Figure 39), which could be licensed to other communities and with potential 'sub-brands'.



Figure 39: Franchise or Licensing opportunities for 'Blackfella Beef'.

9 Recommendations for proceeding to Stage 2 Commercialisation stage

Research by the University of Southern Queensland (USQ and Western Kangoulu (WK) teams has provided insights into deployment of 'Blackfella Beef' products into Australian and Asian markets.

The name 'Blackfella Beef' was of concern to several of the abattoirs and meat processors. Once explained they were more confident, however they were concerned about the use of the name in the USA, where 'black' would not be well received. It is therefore critical that 'Blackfella Beef' develop stories and explanations about the product on all product packaging and a web site. During interviewing awareness of the 'Blackfella Beef' brand had already been spreading (word of mouth). The brand name did seem to garner interest, being slightly controversial, however the 'story' of 'Blackfella Beef' seemed to reassure most potential Australian entities.

The research has shown that there is demand from a broad group of institutional and individual customers for both chilled and shelf-stable 'Blackfella Beef' snacks and meals. The driver of the demand from institutions (and the relative advantage of 'Blackfella Beef') is Indigenous procurement quotas. The driver of the demand from individual consumers includes tourists, millennials and other consumers who are wishing to connect with and / or support Indigenous cattle farmers.

A key consideration with the development of the Indigenous beef supply chain is sourcing and developing a grass fed beef supply chain that can supply consistent, quality beef, year round. Therefore the 'Blackfella Beef' Services - delivering property management training and skills development courses to build up the 'Blackfella Beef' herds and processing supply chains is a critical early step. How to develop the 'Blackfella Beef' supply chain, and the costs involved at each step were outlined in this report where possible (avoiding dissemination of commercial-in-confidence information).

Once supply is established, even if it is initially seasonal rather than at regular intervals, 'Blackfella Beef' strategy for commercial products and services can develop as follows:

- I. Fresh/chilled beef range at targeted events (e.g. NAIDOC week)
- II. Expand fresh/chilled premium beef cuts to Queensland restaurants, hotels and service businesses – mining, government agencies and institutions
- III. Processed shelf stable products – canned, bottled, dried, packaged products such as broths, beef jerky. Focus on premium gift range, such as hotel gift shops, Indigenous art centres, online gift baskets.

Overall, the potential staged strategy for 'Blackfella Beef' into the future would include the steps shown in Figure 40, which summarise the findings of this report.



Figure 40: 'Blackfella Beef' strategy into the future.

One major recommendation is to do a demonstration of a 'test' supply chain by collaborating with the companies interviewed during this project to deliver 'Blackfella Beef' products during a high-profile Indigenous event. The team identified that National NAIDOC Week 2020 may be ideal for such an event. The strategy for the test supply chain is outlined in Figure 41.

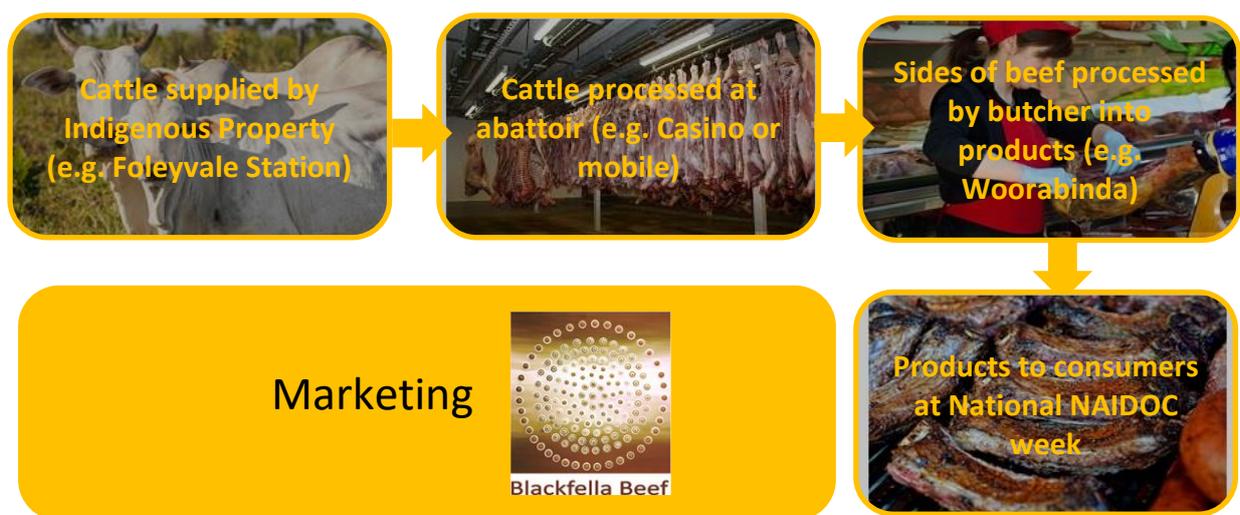


Figure 41: 'Blackfella Beef' supply chain test strategy.

It is envisaged that this trial will identify any details that need to be modified before a full commercial supply chain can be established. All entities interviewed during this project may also be invited as attendees to continue building potential business relationships.

In order to ensure success of such an event, it is recommended that a smaller test run be done prior to National NAIDOC week 2020. 20 cattle can provide enough meat products to produce ~ 2 tonnes of edible products, and is easy to transport to and from the abattoir that seemed the best choice for 'Blackfella Beef'. This weight of product does not include fat and bone products deemed 'non-profitable' in Table 9, but it does include the CL Trim products, which could be used potentially in sausage or burger products. The 'pre-trial' products could be used within Indigenous communities to boost nutrition access, particularly protein.

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Appendix A: Indigenous Procurement Policy and Process Examples

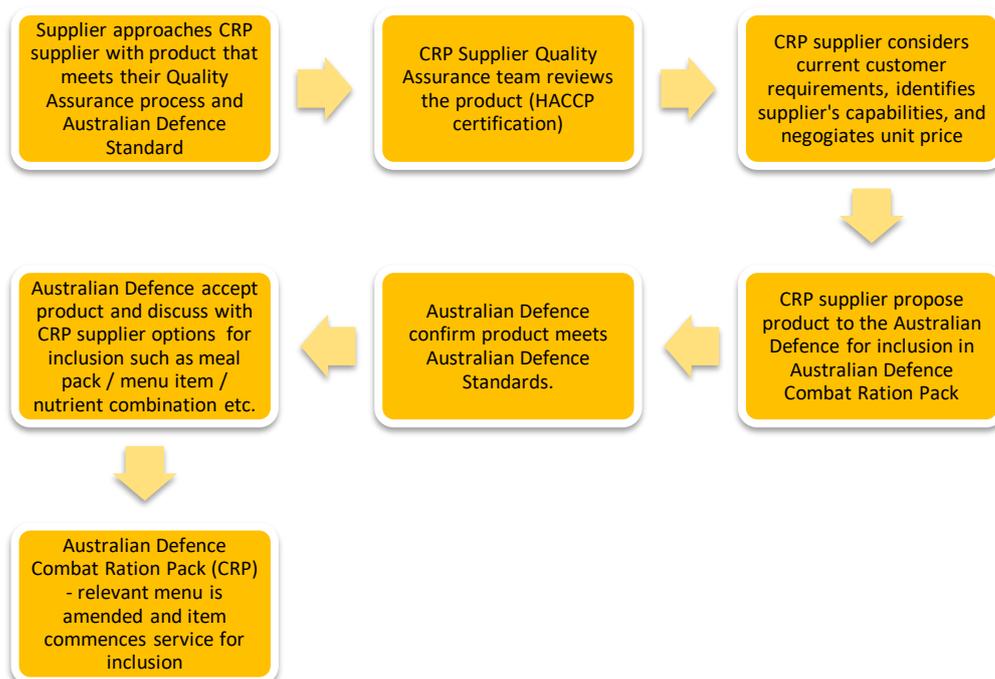
Here we look at two organisations and their Indigenous Procurement Policies as well as potential product supply opportunities for 'Blackfella Beef'.

Australian Defence Force

The *Australian Defence Force (ADF)* is supplied with several hundred thousand Combat Ration Packs (CRPs) annually. These comprise of a wide range of food items, including main meals usually in retort pouches, freeze-dried meals, steak bars, sweet snacks and other items. Shelf-stable beef products could be an option for 'Blackfella Beef' to supply to ADF.

The Combat Ration One Man (CR1M) is a self-contained, individual field ration in lightweight packaging procured by the Australian military (MRE Info, No Date). The items of the CR1M are produced by various companies within Australia and New Zealand, however their nutritional content may be modified. Two other close variants of the CR1M are the PR1M (Patrol Ration One Man) and the CR5M (Combat Ration 5 Man). The PR1M is a lightweight variant weighing only 60% of the total weight of the CR1M, while the CR5M is the 5-man variant of the CR1M.

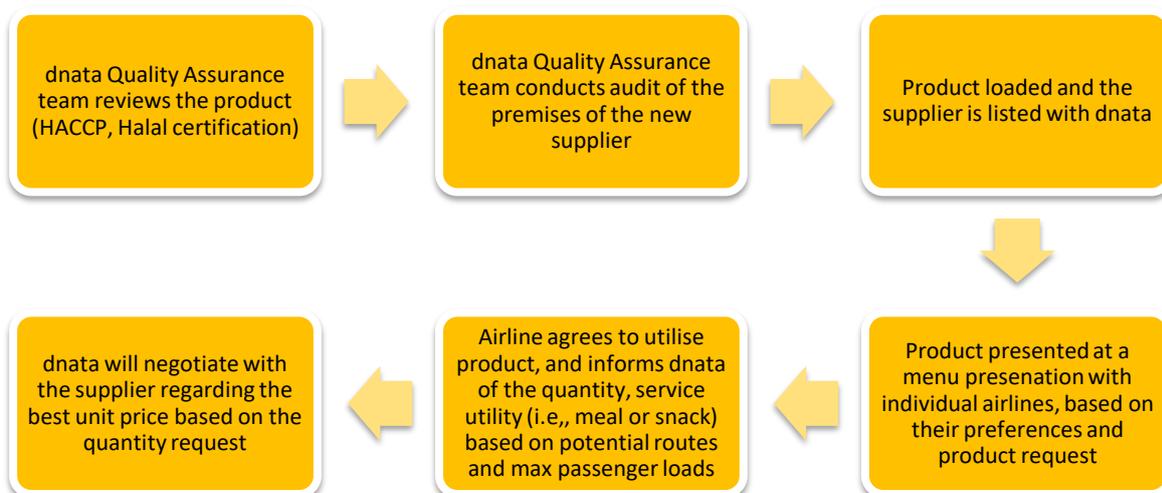
The current CRPs supplied to the Australian Defence force may include one steak bar, however not all ration packs have a bar. Defence purchases ration packs under contract from a company in New Zealand (Australian Government, 2019). Any business can propose new or alternative products as potential ration pack components, which may be an opportunity for 'Blackfella Beef'. Defence will consider, and may agree to their inclusion. As such, the high-level process overview for approval is as follows:



Qantas

Qantas' inflight catering business is provided by dnata, an aviation services company that is part of the Emirates Group (Qantas, 2018). dnata Catering operates 11 catering facilities in Australia. Globally dnata's catering operation spans 63 locations across 13 countries, providing flight catering and inflight retail services to more than 190 airlines (Qantas, 2018).

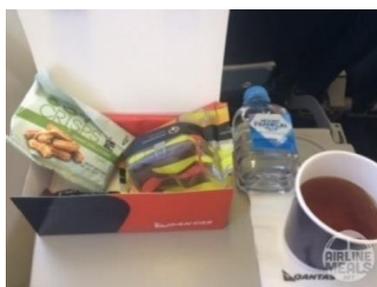
Suppliers looking to provide catering products to Qantas, should market the product to Qantas first (Flynn, 2019). In this case, Qantas would then bring the agreed product to dnata catering (Flynn, 2019). As such, the last step of the above process may already be negotiated and agreed to between Qantas and the supplier. The dnata high-level overview is as follows:



dnata indicated that snack products are often purchased, packaged in individual units (Flynn, 2019). Usually three individually packaged units are included in snack boxes.



Economy QantasLink Snack Box



Economy QantasLink Snack Box (HTI-CNS)



Economy Qantas domestic Snack Box

In order to supply to Qantas services the procurement method may be modified to fit the interaction with their supplier(s). The following extracts have been taken from the Qantas Procurement Policy (Qantas Airways Limited, 2014). Qantas Procurement Policy gives Qantas the ability to buy from suppliers under a wide range of tender and negotiation process.

Companies in the Qantas Group buy a vast range of goods and/or services in different markets. They do not adopt the same procurement method in all cases, preferring instead to adopt the approach best suited to each need. Depending on requirements, they will normally:

- seek proposals on a competitive basis from a number of suppliers; however, we may seek a proposal from a single supplier or;
- ask for formal bids or tenders as part of the procurement and competitive benchmarking process;
- conduct negotiations with prospective suppliers, instead of or in conjunction with a formal bid or tender process; and
- vary the length and structure of contractual commitments we enter into.

In each case, our objective is to minimise cost and maximise value. In addition, we aim to ensure that the approach we adopt is fair and is clearly understood by our potential suppliers” (Qantas Airways Limited, 2014).

Packaging of snack products for Qantas and their environmental impact are of importance. The following extract is taken from the Qantas Supplier Requirements with respect to packaging of products supplied to Qantas (Qantas Group, No Date): “A Supplier must ensure that, in supplying particular goods, services or works to a Qantas Group Company, the Supplier:

- a) seeks to minimise impacts on the environment from which they are sourced, in which they are utilised and finally to which they are disposed;
- b) utilises practices and materials in its design, construction and delivery that minimise environmental impacts;
- c) maximises the recyclability of the component parts of goods and packaging at end of life/use;
- d) selects products, packaging and practices that minimise the generation of waste and the consumption of resources;
- e) applies Life Cycle Analysis (LCA) principles applied to its design, manufacture and delivery of products, packaging and services; and
- f) complies with applicable environmental laws, standards, codes and policies”.

Summary

Providing products to these entities may involve smaller scale servicing first to ensure that batch runs are successful and customer feedback is collected and monitored. Longer shelf life products are of particular importance for snacks and may be stockpiled for supply, however the amount stockpiled will depend on customer demand.

Both entities advised that all shelf-stable snack products must demonstrate HACCP (Hazard Analysis Critical Control Points) Certification from a recognised certification body, and should include a nutritional panel in accordance with the Australian Food Standards Code. This is standard practice for most products manufactured in Australia for any market.

Nutrition Information		
	Servings per package – 16	
	Serving size – 30g (2/3 cup)	
	Per serve	Per 100g
Energy	432kJ	1441kJ
Protein	2.8g	9.3g
Fat		
Total	0.4g	1.2g
Saturated	0.1g	0.3g
Carbohydrate		
Total	18.9g	62.9g
Sugars	3.5g	11.8g
Fibre	6.4g	21.2g
Sodium	65mg	215mg
Ingredients: Cereals (76%) (wheat, oatbran, barley), psyllium husk (11%), sugar, rice, malt extract, honey, salt, vitamins.		
Ingredients ▲ Listed from greatest to smallest by weight. Use this to check the first three ingredients for items high in saturated fat, sodium (salt) or added sugar.		

Total Fat ▶
Generally choose foods with less than **10g per 100g**.
For milk, yogurt and icecream, choose less than **2g per 100g**.
For cheese, choose less than **15g per 100g**.

Saturated Fat ▶
Aim for the lowest, per 100g.
Less than 3g per 100g is best.

Other names for ingredients high in saturated fat: Animal fat/oil, beef fat, butter, chocolate, milk solids, coconut, coconut oil/milk/cream, copha, cream, ghee, dripping, lard, suet, palm oil, sour cream, vegetable shortening.

Fibre ▶
Not all labels include fibre.
Choose breads and cereals with **3g or more per serve**

◀ 100g Column and Serving Size
If comparing nutrients in similar food products **use the per 100g column**. If calculating how much of a nutrient, or how many kilojoules you will actually eat, use the per serve column. But check whether your portion size is the same as the serve size.

Energy
Check how many kJ per serve to decide how much is a serve of a 'discretionary' food, which has 600kJ per serve.

Sugars
Avoiding sugar completely is not necessary, but try to avoid larger amounts of added sugars. If sugar content per 100g is more than 15g, check that sugar (or alternative names for added sugar) is not listed high on the ingredient list.

Other names for added sugar: Dextrose, fructose, glucose, golden syrup, honey, maple syrup, sucrose, malt, maltose, lactose, brown sugar, caster sugar, maple syrup, raw sugar, sucrose.

◀ Sodium (Salt)
Choose lower sodium options among similar foods. **Food with less than 400mg per 100g are good, and less than 120mg per 100g is best.**

Other names for high salt ingredients: Baking powder, celery salt, garlic salt, meat/yeast extract, monosodium glutamate, (MSG), onion salt, rock salt, sea salt, sodium, sodium ascorbate, sodium bicarbonate, sodium nitrate/nitrite, stock cubes, vegetable salt.

Example of Australian Nutrition Information Panel

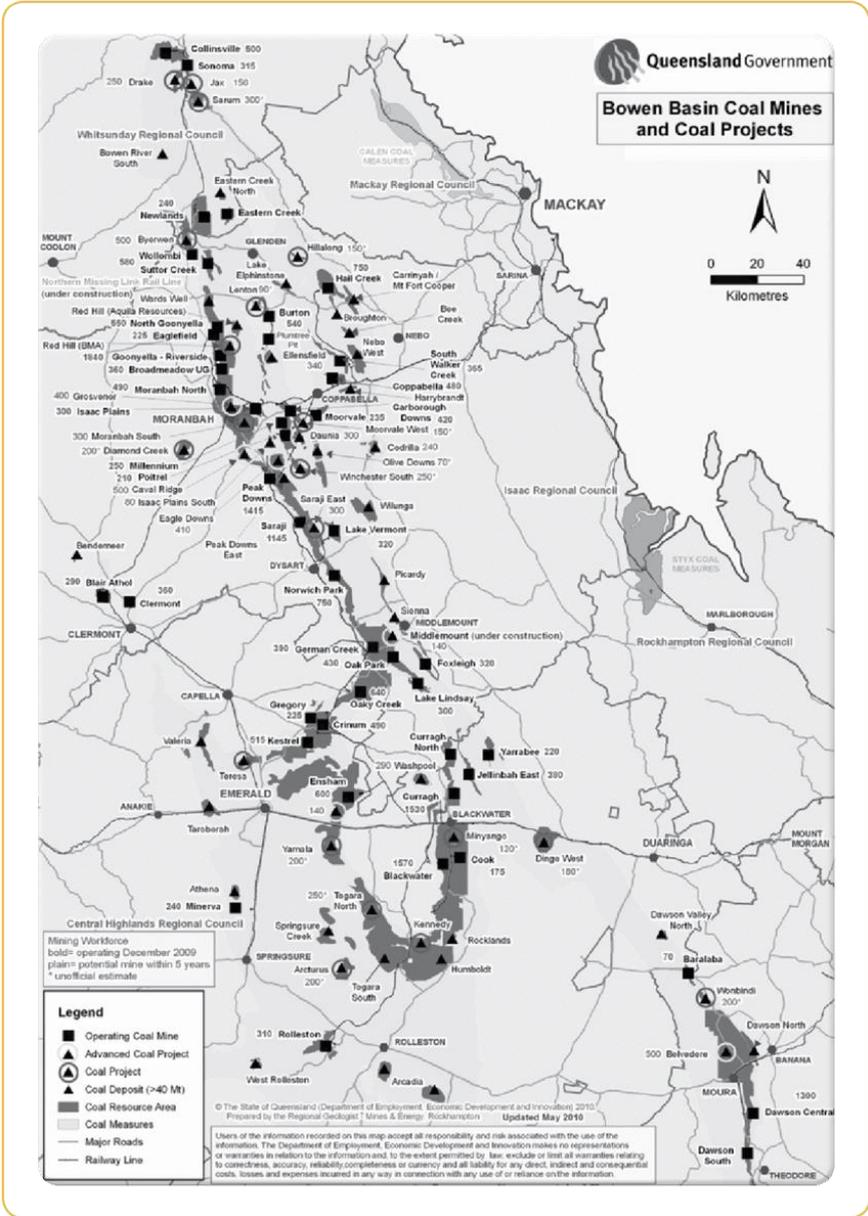
(<http://media.healthdirect.org.au/publications/Nutrition-Information-Panel.pdf>)

Appendix B: Coal mines present in the Bowen and Galilee Basins

• Bluff – open cut coal mine (China Kingho Energy Group)
• Alpha – open cut and underground coal mine (Hancock Coal P/L)
• Broughton – open cut coal mine (U&D mining P/L)
• Byerwen – open cut and underground mine (Byerwen Coal Limited)
• Carmichael Coal Mine and Rail Project (open cut future project; Adani Mining P/L)
• China Stone – open cut and underground mine (Mac Mines Austrasia P/L)
• Comet Ridge – open cut min (New Hope Corporation Limited)
• Eagle Downs – underground longwall coal mine (Aquila Resources Limited)
• Galilee Coal Project – open cut and underground mine (Waratah Coal P/L)
• Kevin’s Corner – underground longwall and open cut mine (GVK Resources Singapore P/L through Hancock Galilee P/L)
• Meteor Downs South – open cut mine (U&D Mining Industry Australia P/L)
• Minyango – underground mine (Caledone Resources)
• Moorlands – open cut mine (Longluck Investment Australia P/L)
• Olive Downs – open cut mine (Pembroke Resources P/L)
• Red Hill – underground mine (BHP Billiton Mitsubishi Alliance)
• South Galilee – open cut/underground mine (Alpha Coal Management P/L)
• Springsure Creek - underground mine (Adamella Resources P/L)
• Taroborah – open cut mine (Shenhua International Group P/L)

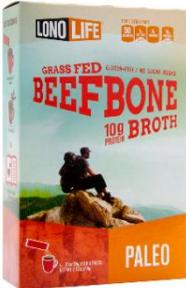


From <http://galileebasin.org/overview/map/>



Appendix C: Details of competitor broth and bar products

Bone broth products available to Australian Consumers.

Item	Product Name	Image	Form	Pack Size	RRP \$AUD	RRP per kg or L \$AUD
1	Kettle and Fire Bone Broth		Liquid	480ml	\$22.95	47.82
2	Lono Life Beef Bone Broth Powder		Powder 4 sachets (15g each)	60g	\$14.13	\$233.33
3	Broth & Co Australian Grass Fed Beef Bone Broth		Liquid	500ml	\$13.25	\$27.50

4	Broth & Co Australian Grass Fed Beef Bone Broth Powder		Powder	100g	\$19.90	\$199.00
5	Broth & Co Australian Grass Fed Beef Bone Broth Powder Variety Pack		12 x 5g sachets of powder		\$19.90	\$331.66
6	The Stock Merchant Grass Fed Bone Broths		Liquid	500g	\$11.99	\$23.98

7	Nutra Organics Beef Bone Broth –Organic Grass fed		Powder	100g	\$24.95	\$249.50
8	Nutra Organics Beef Bone Broth – Sachet packs		8g sachets x 7 pack Powder	56g	\$19.95	\$356.25
9	Ancient Nurition Bone Broth Protein		Powder	445g	\$69.92	\$157.12

10	Bioglan Collagen Bone Broth		Powder	100g	\$17.95	\$179.50
11	Tonemade Organic Bone Broth		Powder	100g	\$45.00	\$450.00
12	Broth of Life Organic Beef Broth		Powder	45g	\$26.50	\$588.89

13	Broth Me Beef Broth T-Bags 8 Pack Naked		t-bag	24g	\$12.99	\$541.25
14	The Goods – Grass fed, free range, bone broth - Beef		Liquid	400ml	\$7.00	\$17.50
15	Campbells Bone Broth		Liquid	500ml	\$7.00	\$14.00

16	Nes Proteins Beef Bone Broth		Powder	100g	\$24.95	\$249.50
17	Meadow and Marrow Bone Broth Concentrate		Concentrate/Paste	260g	\$29.95	\$115.20

Bone Broth Sachets held average dimensions of Height 22 – 24 cm, Width 11-14cm

- As detailed above. Single sachets are also provided in multi-sachet products.

Beef bar products available to Australian Consumers.

Item	Product Name	Image	Distinctive characteristics	Country of Sale	Weight	RRP \$AUD	RRP/kg \$AUD
1	Chief Bar Beef, almond, cranberry		<p>Marketing tag 'Eat like a chief', 'Real food, nothing fake'. 'Natures original protein'. 'Unlike traditional protein bars, our bars are minimally processed'. 'These bars are slow dried which retains over 90% of heat sensitive vitamins such as B12. Around 80g of high quality grass fed meat is dried to produce a 40g bar which makes Chief Bar the perfect daily serve of red meat'</p>	<p>Made in Sydney, NSW.</p> <p>Available for sale in Australia</p>	40 g per bar, but 15 bar minimum purchase online	\$79.00	\$131.67
2	Dr. Axe / Ancient Nutrition, Bone Broth Protein Bar, Salted Chocolate Almond		<p>Markets organic content such as 'organic nut butters, and 100% organic chocolate chips'. 'Features 16g of protein'. Marketed as 'perfect pre-workout snack'.</p>	<p>Made for the company in Florida, US. No mention of where the bars are made.</p> <p>Available for sale in Australia</p>	58 g per bar, but 12 bar minimum purchase online	\$63.17	\$90.76

3	Epic Bar, Wagyu Beef Steak Strips		Made with 100% Grass Fed Beef. 6 g of Protein Per Serving. Grass fed wagyu beef, wildflower honey, water, sea salt, black pepper, garlic powder.	Texas, US. Available for sale in Australia	23 g per strip, but sold in a box of 20	\$56.79	\$123.46
4	Julian Bakery, Paleo Protein Bar, Almond Fudge		Marketed with 'Grass fed beef protein', '20g Protein', '1g sugar'. Includes 'organic stevia leaf extract'. Also markets 'now with prebiotics'	Made in California, US. Available for sale in Australia.	56.3g per bar, but sold in box of 12	\$50.08	\$74.13
5	Tanka, Bar, Buffalo Meat with Cranberries and Pepper Blend		Has 'Native American Natural Foods' logo. 'No Nitrites, no antibiotics, no added hormones.' 'Minimally processed with no artificial ingredients' Packaging mentions 'TankaFund.org' 'Returning the buffalo to Native American Peoples'. '7g of protein'.	Made in the US. Available for sale in Australia	28 g per bar, but sold in box of 12	\$50.45	\$150.15

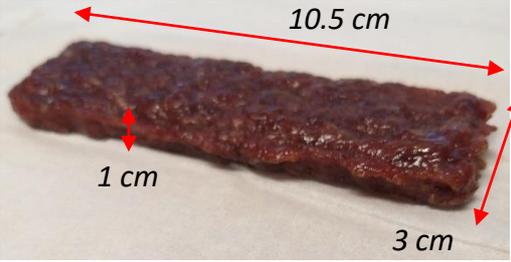
6	Fori Bars, Oven baked savoury meat snack. (with a range of ingredients such as cranberry and date).		'Fori Bars are stripped back to the bare bones'. 'each bar sourced from the finest grass fed, proudly British free range meat.'	Made in the UK. Available for sale in Australia	69 g per bar, but sold in box of 12	\$67.49	\$81.51
7	Prime Bar – Savoury British Beef Snack Bar		"Grass Fed British Beef (80%), Apricots (10%), Carrots (3%), Apple Juice, Sea Salt, Sage, Paprika, Black Pepper, Garlic, and Citric Acid'	Made in the UK. Available for sale in Australia	40 g per bar, but sold in box of 12	\$52.99	\$110.40
8	Country Archer Frontier Bar		'raised without antibiotics / hormones'. 'More Meat, Less Bull, No Junk'. '20g protein'.	Made in the US. Available for sale in Australia	42 g per bar, but sold in box of 12	\$59.22	\$117.5
9	Krave Meat Bars		'with fruit and quinoa'	Made in the US. Limited sales in Australia	35 g per bar, but sold in box of 12	\$35.00	\$83.33

10	Jack Link's Steak Bar		<p>“Jack Link’s Steak Bars are the perfect healthy snack option. With 11g of protein per 25g bar, they contain more protein than most ‘protein bars’. Tasty, healthy, convenient. Just the best 100% prime beef, bursting with flavour.”</p>	<p>Made in New Zealand. Available in Coles, 7-Eleven, BP stations and Campbells Wholesale</p>	<p>25 g per bar, but can be sold in boxes of 25</p>	<p>\$75.99</p>	<p>\$121.58</p>
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Appendix D: Range of Snack Packaging Examples in Australian Shops

Protein Bars

Jack Links 30 g Steak Bar (Teriyaki) \$4.00

<p>Front View</p> <p style="text-align: center;">18 cm</p>  <p style="text-align: right;">5.5</p>	<p>Back View</p> 																
<p>Side view</p>  <p style="text-align: right;">1.2</p>	 <p style="text-align: center;">10.5 cm</p> <p style="text-align: center;">1 cm</p> <p style="text-align: right;">3 cm</p>																
<p>Ingredients</p> <ul style="list-style-type: none"> • Beef (80%) • Soy Sauce (<i>Soybeans, Rice, Salt, Water</i>) • Salt, • Soy Protein • Yeast Extract • Cultured Celery Powder • Flavourings • Acidity Regulator (<i>Citric Acid</i>) • Natural Wood Smoke 																	
<p>Nutrition per serving (30 g)</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Energy</td> <td>390 kJ</td> </tr> <tr> <td>Protein</td> <td>8.4 g</td> </tr> <tr> <td>Fat Total</td> <td>4.0 g</td> </tr> <tr> <td> Saturated</td> <td>1.8 g</td> </tr> <tr> <td>Carbohydrate Total</td> <td>6.0 g</td> </tr> <tr> <td> Sugars</td> <td>5.9 g</td> </tr> <tr> <td>Sodium</td> <td>540 mg</td> </tr> <tr> <td>Water (calculated as difference)</td> <td>11.06 g (i.e. 36%)</td> </tr> </table>		Energy	390 kJ	Protein	8.4 g	Fat Total	4.0 g	Saturated	1.8 g	Carbohydrate Total	6.0 g	Sugars	5.9 g	Sodium	540 mg	Water (calculated as difference)	11.06 g (i.e. 36%)
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Sodium	540 mg																
Water (calculated as difference)	11.06 g (i.e. 36%)																
<p>Extra comments on Jack Links Product:</p> <p>This bar came with a dessicant sachet (like a silica packet). The packing consisted of a flat top layer and a moulded thermoformed bottom layer. Either foil lined plastic or plastic-foil-plastic sandwich.</p> <p>1/2 of the back of the package is devoted to 'story' of the product and includes website address.</p> <p>Pleasant savoury flavour.</p> <p>High moisture content hence need for dessicant.</p> <p>This new 'tender' formula may be a blended and formed product rather than sliced – would need to investigate.</p> 																	

Blue Dinosaur 45 g Paleo Bar (Macadamia and Lemon) \$5.00

Front View

13 cm



5 cm

3.5

13 cm

Back View



Flat package is 13.5cm W 14cm H, 1.5 cm seam overlap



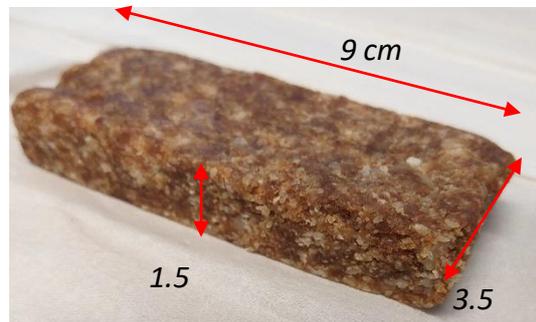
14 cm



Side view



1.5



9 cm

1.5

3.5

Ingredients

- Sulphur free organic coconut
- Dates
- Macadamia Nuts (10%)
- Organic coconut Oil
- Organic lemon Oil (0.2%)

Nutrition per serving (45 g)

Energy	984 kJ
Protein	2.0 g
Fat Total	17.6 g
Saturated	12 g
Carbohydrate Total	14.8 g
Sugars	14.4 g
Sodium	6 mg
Dietary Fibre	6.7 g
Water (calculated as difference)	5.90 g (i.e. 13%)

Extra comments on Blue Dinosaur Product:

Use of macadamias, which could also be useful in 'Blackfella Beef' products.

Package is either foil lined plastic or plastic-foil-plastic sandwich.

Very sweet flavour, which is probably due to the coconut and the dates.

Lemon flavour was very noticeable, as well as the lemony aroma. In 'Blackfella Beef' products desert lime or similar could be used.

The macadamias were ground fine, were not present as chunks.

Texture was 'squishy'

This is a sweet snack product and potentially different to 'Blackfella Beef' target products.

The front of the package has a minimalist 'story' of the product.

About one-quarter of the labelling space is devoted to directing purchasers to social media channels.

Protein Balls

Bounce 42 g Protein Energy Ball (Cacao Mint) \$3.50

Front View



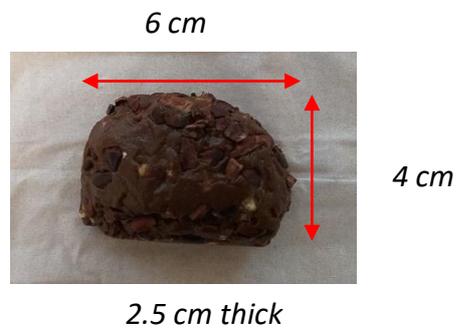
Back View



Flat package is 11cm W 18cm H, 1.5 cm seam overlap



Side view



Ingredients

- Seeds (Sunflower kernels 19%, Cacao Nibs 13%)
- Brown Rice Syrup
- Whey Protein Blend
- Grape Juice
- Rice Bran
- Cacao Powder (3%)
- Pea Protein
- Quinoa
- Tapioca Starch
- Vegetable gum (guar)
- Natural flavour
- Vanilla extract
- Sea salt
- Mixed tocopherols (Natural Vitamin E)
- Peppermint Oil
- Calcium carbonate
- Sunflower lecithin

Nutrition per serving (42 g)

<i>Energy</i>	731 kJ
<i>Protein</i>	10.0 g
<i>Fat Total</i>	7.5 g
<i>Saturated</i>	2.5 g
<i>Carbohydrate Total</i>	15 g
<i>Sugars</i>	9.6 g
<i>Sodium</i>	114 mg
<i>Dietary Fibre</i>	3.1 g
<i>Water (calculated as difference)</i>	6.29 g (i.e. 15%)

Extra comments on Bounce Product:

Marketed as a protein ball, but the products often flatten in transit.

Strong mint aroma, but the mint flavour is not as strong as the aroma indicates.

Protein Source is whey and grains.

Very sweet product.

Most of the back of the package is devoted to the 'story' of the product and direct consumers to their social media channels and website to learn more.

Chips

Beef-based chips could be a potential snack product. There are very few products of this type on the market, so we can instead look at current chip products.

Kettle Chips 90 g (Sea Salt and Vinegar) \$4.00

Front View



Back View



Flattened view



When flattened there is no raised seam, but there is a flat flush seam overlap of 1.5 cm

26.75 cm

Ingredients

- Potatoes (analogous to beef component)
- Sunflower oil
- Natural flavours
- Sugar
- Maltodextrin (Maize)
- Sea Salt
- Food acid (Citric)
- Mineral salt (Potassium chloride)
- Maize starch
- Yeast Extract
- Cider Vinegar Powder

Nutrition per serving (25 g)

<i>Energy</i>	505 kJ
<i>Protein</i>	1.8 g
<i>Fat Total</i>	6.4 g
<i>Saturated</i>	0.6 g
<i>Monounsaturated</i>	5.1 g
<i>Carbohydrate Total</i>	14 g
<i>Sugars</i>	0.4 g
<i>Dietary Fibre</i>	0.5 g
<i>Sodium</i>	202 mg
<i>Water (calculated as difference – not all components shown above)</i>	1.77 g (i.e. 7.1%)

Extra comments on Kettle Chips Product:

This product is highly energy dense and contains over 3 and a half servings within the package. The packaging appears to be foil with polymer printed labelling on the outside. Half of the back of the package focuses on the 'story' of the product while directing consumers to their website to learn more. Product has a very strong flavour.

Broth Powder

Nutraorganics 100 g Bone Broth Powder (Chicken) \$29.95

Front View



Back View



Ingredients

- Free Range Chicken Bone Broth Powder* (Chicken Bones*, Filtered Water, Apple Cider Vinegar*, Himalayan Salt) (83%)
- Roasted Chicken Powder (Roasted Chicken, Tapioca Starch, Ginger, Rosemary)
- Deactivated Savoury Yeast Flakes
- Garlic
- Onion
- Himalayan Crystal Salt
- Chopped Chives
- Black Pepper

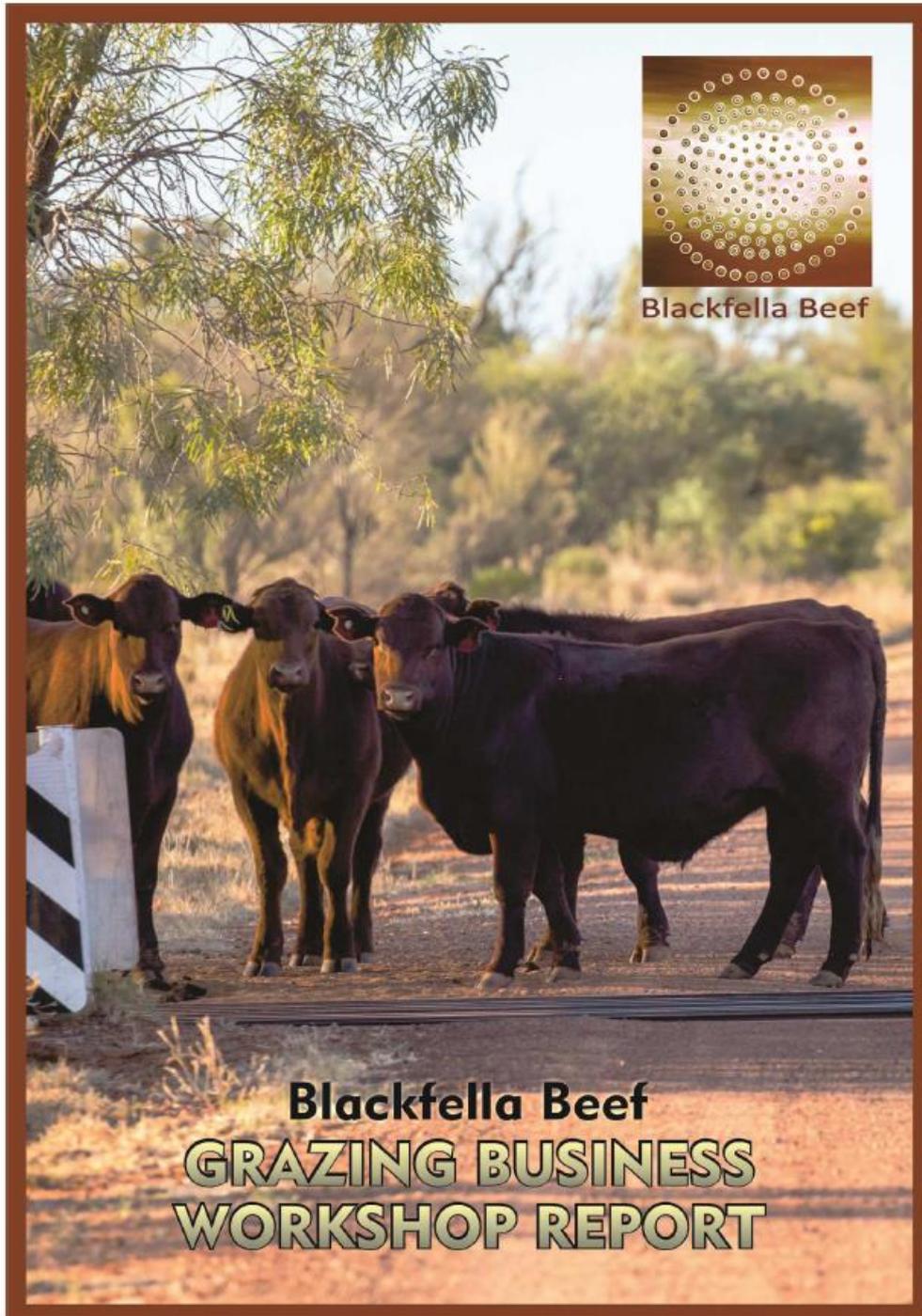
Nutrition per serving (8 g)

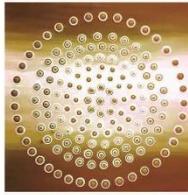
Energy	135 kJ
Protein	3.1 g
Fat Total	<1 g
Saturated	<1 g
Carbohydrate Total	4.6 g
Sugars	<1 g
Sodium	46 mg
Water (calculated as difference, some components not shown)	0.23 g (i.e. 2.88%)

Extra comments on Nutraorganics Product:

'Natural looking' packaging – brown paper look.
 Aimed at wellness market
 Fully dried product to make beverages but could be added to meals as well.
 Can be purchased directly from supplier online – cuts out 'middle' retailer.

Appendix E: Blackfella Beef Grazing Business Workshop and Mentoring Report





Blackfella Beef

This report was prepared for Blackfella Beef by

Ian Perkins

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Blackfella Beef

GRAZING BUSINESS WORKSHOP REPORT

May 2019

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ACKNOWLEDGEMENTS

Blackfella Beef would like to acknowledge the support of the many people and organisations supporting this initiative, including: The Indigenous Land and Sea Corporation, Meat & Livestock Australia, AgForce, Woorabinda Pastoral Company, Fitzroy Basin Association, Western Kangoulu and the Queensland Department of Agriculture and Fisheries, WA Department of Primary Industries and Resource Development.

This workshop was a pilot process and many of the organisations involved committed time and resources as “in kind” contributions and these contributions are gratefully acknowledged.

AgForce, in particular Cass Heal, designed the workshop, recruited presenters and organised a pre-event workshop to familiarise presenters with their target audience. AgForce hosted the pre-event presenters workshop, all the presenters contributed time and enthusiasm and Blackfella Beef personnel provided review and input. AgForce also contributed presenters to the workshop and the workshop co-ordinator. Fitzroy Basin Association contributed a number of presenters as did Meat & Livestock Australia, Queensland Department of Agriculture and Fisheries, Blackfella Beef and the Indigenous Land and Sea Corporation. Participants were identified and supported by Blackfella Beef, ILSC, Woorabinda Pastoral Company and WA DPIRD. WA DPIRD committed the travel and time costs for two representatives to travel from WA. Woorabinda Pastoral Company generously contributed workshop facilities, stock in the yards and a beast for a post mortem demonstration. ILSC funded workshops costs not covered by in kind contributions.





BACKGROUND

The Blackfella Beef project is an initiative aimed at exploring the potential for developing indigenous branded beef products and services to both the domestic and international market. The project was initiated by Western Kangoulu and Wangan Jagalingu Indigenous groups and is supported by Meat & Livestock Australia and University of Southern Queensland.

The indigenous team leading this project aim to establish long-term sustainable businesses through building a value chain to profitable markets. Their goals include

- Common indigenous branding for disparate indigenous groups/communities across the supply chain
- Strengthen the supply side of the beef value chain with improved property management.
- Increase employment for indigenous people throughout the supply chain
- Increase the number of indigenous social and profit-making enterprises
- Improve the education of indigenous people by increasing the number of agricultural, food and logistics scholarships at schools and universities to support the development of the beef value chain
- Increase indigenous entrepreneurial opportunities aligned with 'black fella beef', for example, in the tourism sector.

The team will build relationships with indigenous cattle stations, other red meat businesses and service companies across the value chain to identify customers and markets that will support the brand and ensure consistent, quality and timely distribution of high value add beef products.



The Blackfella Beef team aim to develop a land management service to support indigenous land managers and to strengthen the supply side with improved property, livestock and supply chain management. Discussion with ILC, MLA and other current service providers has indicated a demand for the development of a specific indigenous focussed land, property and livestock management training, mentoring and support service. A collaborative effort has designed an approach to develop this service and to initiate implementation across Northern Australia.

This approach involves the conduct of a pilot workshop in Central Queensland in May 2019, utilising existing training products and technical specialists, followed by on property support during May and June 2019. The learnings gained from this pilot process will inform the development of a broader training and support programme. This programme will be developed using the existing training products with appropriate modification to content, delivery and feedback to suit the target audience. It is envisaged that the development and early implementation of this programme will take place during the second half of 2019 and early 2020. The following is a report on the pilot workshop conducted at Foley Vale in central Queensland in May 2019.

WORKSHOP

The Grazing Business Workshop began with a welcome ceremony by the MacKenzie River and a welcome to country in the classroom.

The workshop was designed to be practical and applicable to people actively working on and managing cattle properties. The format included practical sessions in the cattle yards and the paddock as well as sessions in a classroom and facilitated discussions. All participants and presenters shared meals and smokos, so there was ample time for informal discussion and more intimate sharing of knowledge. Discussion was encouraged throughout the sessions and a thread of discussion was followed. Cultural and governance discussions were facilitated and resulted in high levels of engagement and sharing of valuable information. The mix of formats worked well and participants were engaged throughout the workshop.

WORKSHOP PROGRAMME

The workshop programme was based around the five BMP modules – ‘Animal Production’, ‘Animal Health and Welfare’, ‘Soil Health’, ‘Grazing Land Management’ and ‘People and Business’, with additional input on Carbon Farming and diversification and meat quality. A post mortem demonstration was conducted by DAF staff.



ATTENDANCE

Participants

The workshop was very well attended with participants coming from Kowanyama, Western Australia, Aramac, Nebo and the local area. The following is a list of workshop participants and the properties and organisations they represent.

Peter McNally	Woorabinda Pastoral Company
Damien Singo	Woorabinda Pastoral Company
Raymond Saltner	Woorabinda Pastoral Company
Shawn Holz	Woorabinda Pastoral Company
Nathan Freeman	Woorabinda Pastoral Company
Donnie Major	Woorabinda Pastoral Company
Keb Oakley	Woorabinda Pastoral Company
Miranda Blackman	Woorabinda Pastoral Company
Bernadette Barry	Woorabinda Pastoral Company
Mahlon Doncon	Woorabinda Pastoral Company
Montana Lelievre	Woorabinda Pastoral Company
Michael Adams	Woorabinda Pastoral Company
Damien Dand	Woorabinda Pastoral Company
Barry Bloomfield	Woorabinda Pastoral Company
Joseph Dempsey	Woorabinda Pastoral Company
Lawson	Woorabinda Pastoral Company
Linton	Woorabinda Pastoral Company
John Solar	Woorabinda Pastoral Company
Jonathan Aiden	Kowanyama
Michael Clarke	Kowanyama
Clinton Mudd	Kowanyama
Graham Ambridge	Gracevale Station
Stephen Hazel	Gracevale Station
Kelvin Dunrobin	Urannah
Lexie Mourmbine	Beemurra, WA
Tony Gray	WA DPIRD
Michael Davis	ILSC

"I got a new lease of life. I had been struggling along before with no sense of direction."

*Daemo –
Head Stockman, Foley Vale*



Cattle Numbers and Land Area Involved

The following land areas and cattle numbers are represented by the organisations present.

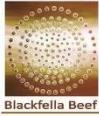
Property Name	Land Area (ha)	Cattle Numbers
Woorabinda Pastoral Company	100,000	5,000
Kowanyama	260,000	10,000
Gracevale	12,000	400
Urannah	65,000	2,500
Yallalie Downs WA	1,242	400
TOTAL	373,000	18,300

Presenters

The presenters were drawn from a diverse range of organisations and covered a range of practical and applicable topics. The workshop was designed to cover land management, animal production and business management along with supporting topics such as weed management, carbon farming and workplace health and safety.

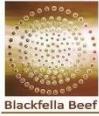
The following is a list of presenters and the organisations they represent.

- Bernie Clauson Fitzroy Basin Association
- Roger Sneath Department of Agriculture and Fisheries
- Matt Brown Department of Agriculture and Fisheries



- Rachel O'Brien Biosecurity Queensland
- Christine Purdy Meat & Livestock Australia
- Laura Garland Meat & Livestock Australia
- Linda Dunbar Department of Agriculture and Fisheries
- Grant Parker Department of Agriculture and Fisheries
- Marie Vitelli AgForce
- Noel Brinsmead AgForce
- Jason Pfingst Blackfella Beef
- Kelvin Dunrobbin Blackfella Beef
- Ian Perkins Blackfella Beef
- Jonathan Green Indigenous Land and Sea Corporation
- Steve Banney Fitzroy Basin Association
- Allan Clarke Office of Industrial Relations





VENUE AND FACILITIES

The Foley Vale venue and facilities included –

- Welcome ceremony
- Basic accommodation available at Foley Vale (bed with mattress in shared rooms with bathroom separate); hotel and motel accommodation available in Duaringa (40 minutes' drive away)
- Meeting room
- Outdoors meeting area
- Kitchen and all meals provided
- Dining room
- Outdoor fire for yarning at night
- Cattle yards with stock handling facilities
- Steer for Post Mortem
- Stock in the yards available for inspection/stock handling etc
- Paddock areas with varied pasture and grazing management
- Large area of cropping.

Equipment supplied –

- Data projector
- White board
- Course notes





The facilities supplied by Foley Vale were excellent and suited the nature and format of the workshop very well. The ability to move easily from the meeting room to the paddock or to the stock yards and to have access to cattle was very important and made for a highly interactive workshop. Shared meals in the dining room were important as was the fire to gather around at night time.

Most presenters stayed in a motel in Duaringa and drove out each day, which worked well as presenters had time to share and discuss the day's proceedings. Participants and some presenters stayed in the accommodation at Foley Vale, which also worked well allowing informal discussions with and among participants. Meals were shared in the dining room and during the evenings there was a fire, which was an important place for sharing and storytelling.

Accommodation at Foley Vale is basic, with beds and mattresses supplied in shared rooms. The necessity to bring a swag prevented some presenters who would have liked to stay at Foley Vale from doing so.

SUMMARY

What worked

- The venue and facilities including cattle and an animal for post-mortem.
- Practical presentations focussing on what happens in and on a cattle enterprise.
- Enthusiastic, knowledgeable presenters.
- Mix of outside and inside sessions.
- Shared meals and informal discussion.
- Diversity of enterprises on Foley Vale.

What could be improved

- Accommodation – if possible, it would be good to be able to accommodate all presenters and participants at the same place.
- Meal times – adherence to a timetable will make preparation etc easier and simpler for the cook.
- Appointment of a workshop facilitator to be in control of process, times, etc.
- Arrangement of sessions to ensure continuity and to ensure all presenters are able to be present for the Cultural Heritage session.



FUTURE WORKSHOP FORMAT

Feedback from presenters and participants has been used to redesign the format of the workshop. The timing of presentations will enable a day to focus on Animal Production and a day on Land Management, with a half day on Business Management and Workplace Health and Safety as below:

Day 1 - Evening

- Welcome to Country
- Story of Blackfella Beef
- Marketing and importance of consistent quality
- MSA presentation and tasting

Day 2 – Animal Production

- Breeder management
- Bull management
- Animal health and welfare
- Low stress stockhandling
- LPA/NVD fit load and biosecurity reporting
- Post mortem (plus animal rumen digestion)
- Cultural heritage

Day 3 – Land Management

- Pasture
- Land condition
- Soil health
- Carbon
- Weeds
- Governance

Day 4 – Business Skills (manager focus 1/2 to 2/3 day)

- Diversification
- Mapping
- Health and safety
- Business management

Following Week – Mentoring Programme



MENTORING PROGRAMME

Max Gorrige, a senior indigenous trainer will travel to the properties represented at the workshop (excluding Beemurra, as it is in WA) and spend time on these properties providing support in the implementation of practices and management techniques discussed at the workshop. Max will spend a week or more on each property during the initial visit, working on-ground and in the management office of each property. This time will be focussed on benchmarking, strategic planning and implementation and will be tailored to the requirements of each case. Remote mentoring and support will be supplied in the areas of strategic planning, budgeting and supply chain management by Ian Perkins, Jason Pflingst and other members of the Blackfella Beef Team.

Max is completely self-sufficient and mobile and will stay on the properties in his own accommodation. Ian Perkins and Jason Pflingst, who are both familiar with the people and properties involved, are available for telephone consultation and email correspondence.

PROPERTY DESCRIPTIONS

Woorabinda

Woorabinda Pastoral Company (WPC) runs cattle over an aggregation of seven properties in the Duaringa district and conducts broad acre farming on the properties located north of Duaringa. WPC is an existing cattle enterprise with breeding cattle, selling largely into the feed-on market and has the potential to become an important part of the Blackfella Beef enterprise. Max will focus on gaining an understanding of the entire operation and will begin a process of benchmarking which will provide a baseline for gauging ongoing development of the enterprise. In his time with the Woorabinda Pastoral Company Max will focus on –

- Understanding current production performance levels
- Initiating the Grazing BMP self-assessment process
- Understanding governance issues

Kowanyama

The Kowanyama cattle enterprise is currently in receivership; however, the workshop attendees are in the process of re-establishing the cattle enterprise on the Kowanyama properties and are very interested in support and mentoring to assist them. Kowanyama has the potential to become involved with the Blackfella Beef enterprise. At Kowanyama Max will focus on –

- Understanding the resource base at Kowanyama including infrastructure and current stock numbers
- Understanding governance issues
- Initiating the Grazing BMP self-assessment process



Gracevale

Gracevale has been recently purchased by the ILSC and a lease is currently being developed with the local indigenous organisation. The property has important cultural sites and has the potential to lease part of the property to a livestock operation. At Gracevale Max will concentrate on –

- Understanding the resource base
- Assessing the need for a strategic community-based property management plan.

Urannah

Urannah is owned by an indigenous organisation (Urannah Property Association, UPA) and is currently agisted by a cattleman who is part of a Rockhampton based family, the Ellrott family. The property is currently running up to 2000 breeders and the Ellrott family are interested in an involvement with Blackfella Beef. UPA have recently received funding to conduct an infrastructure development programme focussing on water development and riparian protection. This programme will be initiated in July and it is intended to ensure that Max’s visit will coincide with the infrastructure development programme. During his time on Urannah Max will concentrate on –

- Understanding the resource base
- Understanding current production performance levels
- Initiating the Grazing BMP self-assessment process
- Infrastructure development

TIMEFRAME

The timeframe will be relatively elastic to ensure the communities receive maximum benefit from the mentoring and support time and Max’s presence will need to fit in with activities on the various properties. The following is a draft representation of the mentoring programme and this will be subject to change depending on on-ground conditions.

Property	June				July				August				
Woorabinda													
Kowanyama													
Gracevale													
Urannah													



PROGRAMME FOR FUTURE WORKSHOPS

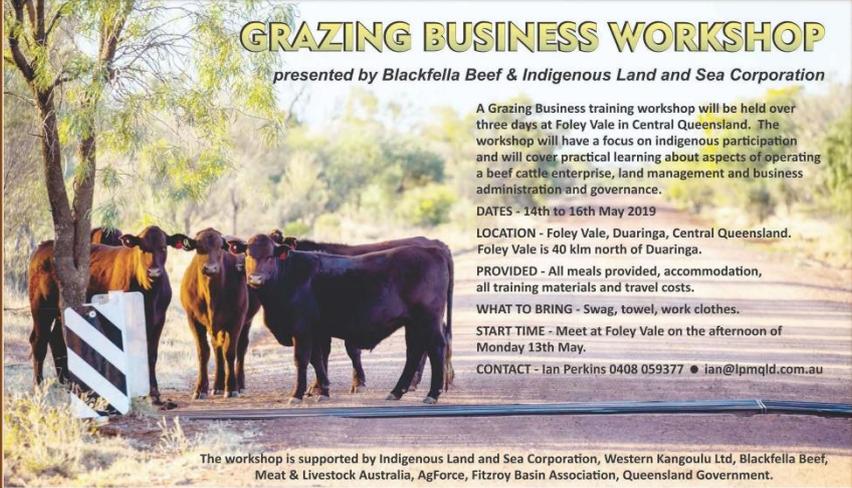
The agencies and organisations which supported this pilot workshop are interested in supporting more workshops throughout northern Australia. Blackfella Beef will facilitate discussions amongst these organisations and will build a coalition of support which will provide financial and in-kind support for running at least three more workshops in 2019 and another series in 2020.

The coalition will include the following organisations –

- Blackfella Beef
- ILSC
- MLA
- AgForce
- Local NRM organisations
- State government Primary Industry agencies



APPENDIX 1: WORKSHOP LEAFLET



GRAZING BUSINESS WORKSHOP

presented by Blackfella Beef & Indigenous Land and Sea Corporation

A Grazing Business training workshop will be held over three days at Foley Vale in Central Queensland. The workshop will have a focus on indigenous participation and will cover practical learning about aspects of operating a beef cattle enterprise, land management and business administration and governance.

DATES - 14th to 16th May 2019

LOCATION - Foley Vale, Duarina, Central Queensland. Foley Vale is 40 km north of Duarina.

PROVIDED - All meals provided, accommodation, all training materials and travel costs.

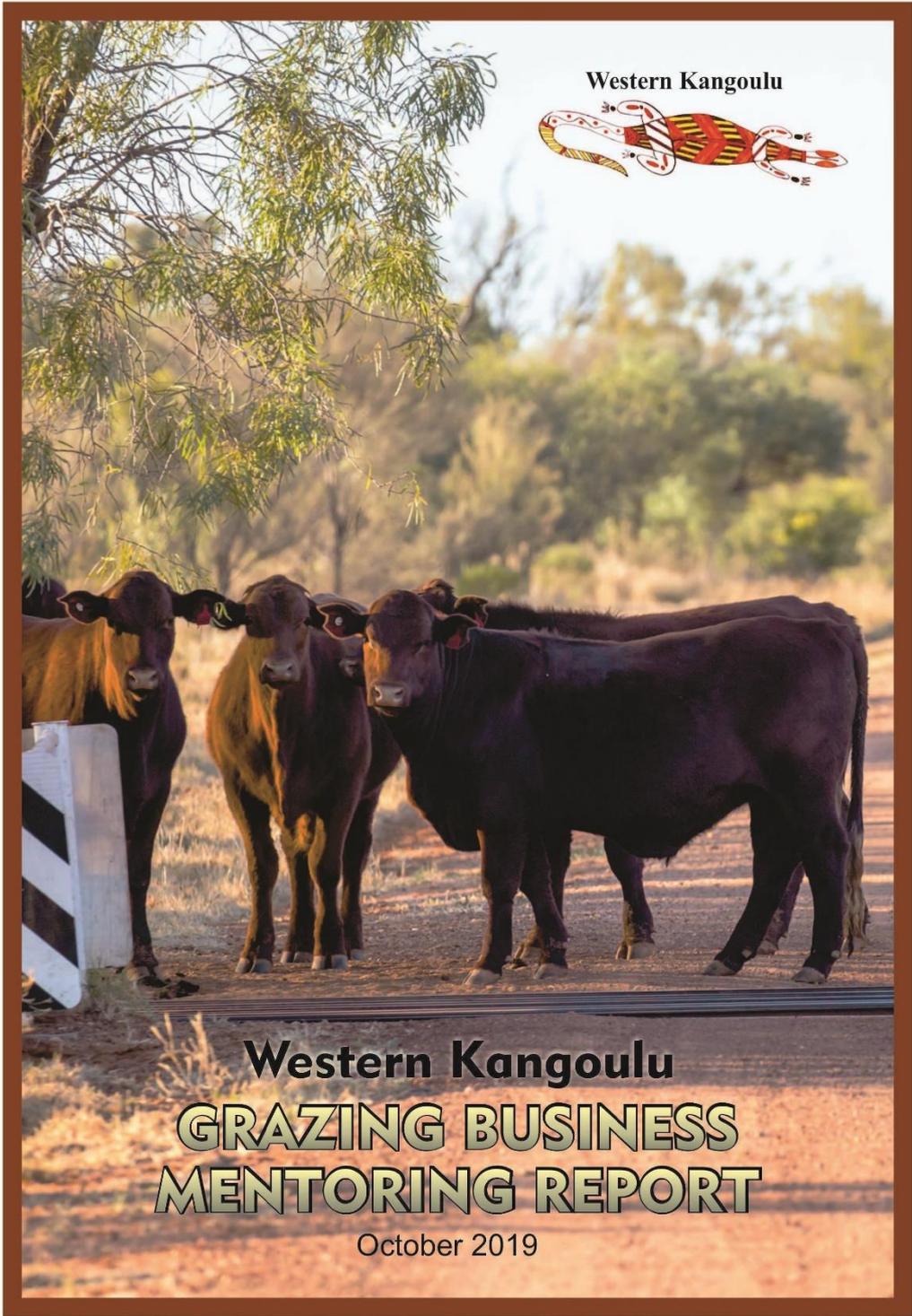
WHAT TO BRING - Swag, towel, work clothes.

START TIME - Meet at Foley Vale on the afternoon of Monday 13th May.

CONTACT - Ian Perkins 0408 059377 • ian@lpmqld.com.au

The workshop is supported by Indigenous Land and Sea Corporation, Western Kangoulu Ltd, Blackfella Beef, Meat & Livestock Australia, AgForce, Fitzroy Basin Association, Queensland Government.





Western Kangoulu



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ACKNOWLEDGEMENTS

Western Kangoulu would like to acknowledge the many people and organisations supporting this initiative, including: The Indigenous Land and Sea Corporation (ILSC), Meat & Livestock Australia (MLA), AgForce, Woorabinda Pastoral Company, Fitzroy Basin Association (FBA), the Queensland Department of Agriculture and Fisheries, and the Western Australia Department of Primary Industries and Resource Development (WA DPIRD).





BACKGROUND

The Western Kangoulu project is an initiative aimed at exploring the potential for developing Indigenous branded beef products and services to both the domestic and international markets. The project was initiated by Western Kangoulu and Wangan Jagalingu Indigenous groups and is supported by Meat & Livestock Australia and University of Southern Queensland.

The Indigenous team leading this project aim to establish long-term sustainable businesses through building a value chain to profitable markets. Their goals include:

- Common Indigenous branding for disparate Indigenous groups/communities across the supply chain
- Strengthen the supply side of the beef value chain with improved property management.
- Increase employment for Indigenous people throughout the supply chain
- Increase the number of Indigenous social and profit-making enterprises
- Improve the education of Indigenous people by increasing the number of agricultural, food and logistics scholarships at schools and universities to support the development of the beef value chain
- Increase Indigenous entrepreneurial opportunities aligned with Western Kangoulu beef, for example, in the tourism sector.

The team will build relationships with Indigenous cattle stations, other red meat businesses and service companies across the value chain to identify customers and markets that will support the brand and ensure consistent, quality and timely distribution of high value-add beef products.

The Western Kangoulu team aim to develop a land management service to support Indigenous land managers and to strengthen the supply side with improved property, livestock and supply chain management. Discussion with ILSC, MLA and other current service providers has indicated a demand for the development of a specific indigenous-focussed land, property and livestock management training, mentoring and support service. A collaborative effort has designed an approach to develop this service and to initiate implementation across Northern Australia.

This approach involved the conduct of a pilot workshop in Central Queensland in May 2019, utilising existing training products and technical specialists, followed by on-property support during June, July, August and September 2019. The learnings gained from this pilot process informed the development of a broader training and support programme. This programme will be developed using the existing training products with appropriate modification to content, delivery and feedback to suit the target audience. It is envisaged that the development and early implementation of this programme will take place during the second half of 2019 and early 2020. The following is a report on the pilot workshop conducted at Foley Vale in central Queensland in May 2019.



MENTORING PROGRAMME

Max Gorringe, a senior Indigenous cattleman in the Western Kangoulu team travelled to Woorabinda, Urannah and Gracevale and had telephone discussions with Kowanyama representatives. Max spent time on these properties providing support in the implementation of practices and management techniques discussed at the workshop. The Grazing BMP programme has been used in this mentoring process to provide a framework to develop a comprehensive understanding of where the business is operating at capacity and where improvements can be made. This process has also been useful in gathering and sharing essential data and information and lays the groundwork for the development of a strategic plan for each property. During his time at Woorabinda and Urannah, Max facilitated the completion of components of the self-assessment process of the Grazing BMP programme. Remote mentoring and support were supplied in the areas of strategic planning, budgeting and supply chain management by Ian Perkins, Jason Pflugst and other members of the Western Kangoulu team. The mentoring process is seen by Western Kangoulu as an ongoing process and an important part of the partnership arrangement with Indigenous businesses.

PROPERTY DESCRIPTIONS

Woorabinda

Woorabinda Pastoral Company (WPC) runs cattle over an aggregation of seven properties in the Duaringa district and conducts broad acre farming on the properties located north of Duaringa. WPC is an existing cattle enterprise with breeding cattle, selling largely into the feed-on market and has the potential to become an important part of the Western Kangoulu enterprise. Max will focus on gaining an understanding of the entire operation and will begin a process of benchmarking which will provide a baseline for gauging ongoing development of the enterprise. In his time with the Woorabinda Pastoral Company Max will focus on:

- Understanding current production performance levels
- Initiating the Grazing BMP self-assessment process
- Understanding governance issues

Mentoring Progress

Max Gorringe has spent two weeks at Woorabinda working with the cattle enterprise at all levels, from cattle work and fence and road maintenance to management level meetings and discussions.

Max has developed a thorough understanding of the entire operation and has formed positive relationships with staff and management. Under Max's guidance the Woorabinda management team have completed the Animal Production component of the Grazing BMP process. Max, the Woorabinda management group and the Western Kangoulu team reviewed this process by teleconference and this has resulted in the development of an action plan.

The Woorabinda management team are currently completing the Grazing Land Management component of the Grazing BMP process and this will lead to the development of a relevant action plan. Max and the Western Kangoulu team will remain in close contact with the Woorabinda management group and will facilitate the completion of the five Grazing BMP



components resulting in the completion of an action plan for each component as well as providing analysis of a range of management options for the future operation of the enterprise.

During his time at Woorabinda and through the Grazing BMP process Max has gathered an understanding of current productivity and performance levels and is working with Woorabinda management and the Western Kangoulu team to accumulate data required to initiate a benchmarking process. Woorabinda and Western Kangoulu are continuing to discuss the formulation of partnerships with regard to marketing branded beef.

ACTIVITY	BMP MODULES				
	Animal Production	Animal Health and Welfare	Grazing Land Management	Soil Health	People and Business
Self-Assessment completed	Self-assessment completed		In progress		
Priorities established	Completed		In progress		
Action Plan	Completed		In progress		
Action	In progress				

Kowanyama

The Kowanyama cattle enterprise is currently in receivership; however, the workshop attendees are in the process of re-establishing the cattle enterprise on the Kowanyama properties and are very interested in support and mentoring to assist them. Kowanyama has the potential to become involved with the Western Kangoulu enterprise. At Kowanyama Max will focus on –

- Understanding the resource base at Kowanyama including infrastructure and current stock numbers
- Understanding governance issues
- Initiating the Grazing BMP self-assessment process

Mentoring Progress

Max Gorringer, supported by the Western Kangoulu team has had a number of discussions with Kowanyama representatives leading to an understanding of the resource base, including infrastructure and current cattle numbers and the nature of a number of governance issues which Kowanyama are currently addressing.

The governance issues are currently a priority and the Western Kangoulu team will continue to work with Kowanyama personnel to support the resolution of these issues and the re-establishment of a cattle enterprise on the properties. Kowanyama representatives and Western Kangoulu are continuing to discuss the formulation of partnerships with regard to marketing branded beef and as this partnership develops the mentoring and support programme will continue.



Gracevale

Gracevale has been recently purchased by the ILSC and a lease is currently being developed with the local Indigenous organisation. The property has important cultural sites and has the potential to lease part of the property to a livestock operation. At Gracevale Max will concentrate on –

- Understanding the resource base
- Assessing the need for a strategic community-based property management plan.

Mentoring Progress

Max Gorringer has visited Gracevale and held discussions with management representatives. The group are in the early stages of taking over and managing the property, so discussions were of a general nature. Max and the Western Kangoulu team will remain in contact with the Gracevale group and will provide support where it is relevant and required.

Urannah

Urannah is owned by an Indigenous organisation (Urannah Property Association, UPA) and is currently agisted by a cattleman who is part of a Rockhampton based family, the Ellrott family. The property is currently running up to 2000 breeders and the Ellrott family are interested in an involvement with Western Kangoulu. UPA have recently received funding to conduct an infrastructure development programme focussing on water development and riparian protection.

This programme will be initiated in July and it is intended to ensure that Max's visit will coincide with the infrastructure development programme. During his time on Urannah Max will concentrate on –

- Understanding the resource base
- Understanding current production performance levels
- Initiating the Grazing BMP self-assessment process
- Infrastructure development

Mentoring Programme

Max Gorringer and Ian Perkins visited Urannah for a week and Max stayed for a further two weeks working with the Ellrott family and UPA on management planning and infrastructure development. Max managed and directed a work crew of two young indigenous men who were establishing water and fencing infrastructure on a combined Dry Tropics, ILSC and UPA project.

Max and Gerard Ellrott, with input from Ian Perkins and UPA representatives completed the Grazing Land Management component of the Grazing BMP process and in consultation with the Western Kangoulu team have developed an action plan and a strategic plan for the next five years with a focus on improving grazing land management and further infrastructure development.



UPA in collaboration with the Ellrott family, Dry Tropics and Ian Perkins have conducted an assessment of soil health on Urannah and have developed an action plan aimed at firstly preventing erosion and protecting riparian areas.

During his time at Urannah and through the Grazing BMP process Max has gathered an understanding of current productivity and performance levels and is working with UPA, the Ellrott family and the Western Kangoulu team to accumulate data required to initiate a benchmarking process. UPA and the Ellrott family and Western Kangoulu are continuing to discuss the formulation of partnerships with regard to marketing branded beef from Urannah and envisage that the mentoring and support programme will be ongoing.

ACTIVITY	BMP MODULES				
	Animal Production	Animal Health and Welfare	Grazing Land Management	Soil Health	People and Business
Self-Assessment completed			Self-assessment completed	Self-assessment completed	
Priorities established			Completed	Completed	
Action Plan			Completed	Completed	
Action			In progress	In progress	

SUMMARY

WHAT WORKED

- Having Max spend extended time on Woorabinda and Urannah
- Remote support and tele/video conferences with the extended Western Kangoulu team
- Use of the Grazing BMP framework

WHAT COULD BE IMPROVED

- Further integration of the Grazing BMP framework into the workshop programme
- A structured approach to completing the Grazing BMP self assessment processes and a time frame agreed upon by the management and mentoring teams



PROGRAMME FOR FUTURE WORKSHOPS

The agencies and organisations which supported the pilot workshop and mentoring process are interested in supporting more workshops and support activities throughout northern Australia. Western Kangoulu are working with MLA and ILSC to develop a three-year programme with a focus on capacity building, mentoring, benchmarking and employment. Western Kangoulu will facilitate discussions amongst these organisations and will build a coalition of support which will provide financial and in-kind support for implementing a three-year programme. Western Kangoulu and MLA have had meetings and discussions with prospective partners such as Queensland University, NT DPI and WA DPIRD and will continue to build a coalition of support for the project.

The coalition will include the following organisations –

- Western Kangoulu
- ILSC
- MLA
- AgForce
- Local NRM organisations
- State government Primary Industry agencies

FUTURE WESTERN KANGOULU PROGRAMME

Western Kangoulu is focussing on the following future activities:

- Conduct of future workshops – as described above there is considerable interest in the conduct of training workshops in northern Australia in the second half of 2019 and into 2020.
- Trial shipment of cattle – a trial shipment of cattle will be sent to the Casino abattoir for processing and assessment. Some of the meat will be sold through the Woorabinda community butcher shop.
- Western Kangoulu personnel have established good working relationships with the management groups at Woorabinda, Urannah, Kowanyama and Gracevale and the communities involved with these properties.
- Identification and establishment of marketing relationships – relationships have been established with a number of mining companies with operations in the broader Central Queensland area. These companies have confirmed interest in the regular purchase of products from Western Kangoulu.
- Value adding – identification and trialling of a range of value adding activities – Western Kangoulu recognise that value adding and marketing of lower value cuts and by products are essential for the development of a successful beef branding and marketing enterprise.

Appendix F: Food Process Flow Diagrams for Different Beef Products

Typically, products start with raw ingredient formulation and combination, followed by some form of thermal process, concluding with packaging. In some instances, such as sous vide processing the packaging and thermal treatments may be reversed in the process order.

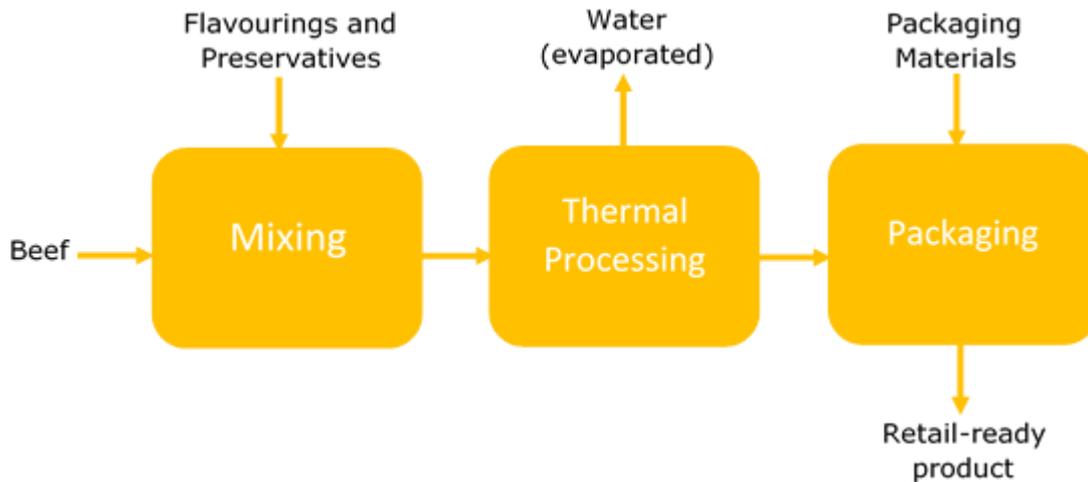


Figure 42: General Process Flow Diagram depicting streams and processes for production of beef products

Based on this general process, 3 categories of products have been diagrammed, beef snack bars, sous vide hot pot meal packs, and nutritious broths.

Beef Snack Bars

Beef snack bars are produced by blending meat with other wet and dry ingredients, forming the bars and then drying and packaging. An example of a process flow diagram is shown in Figure 43.

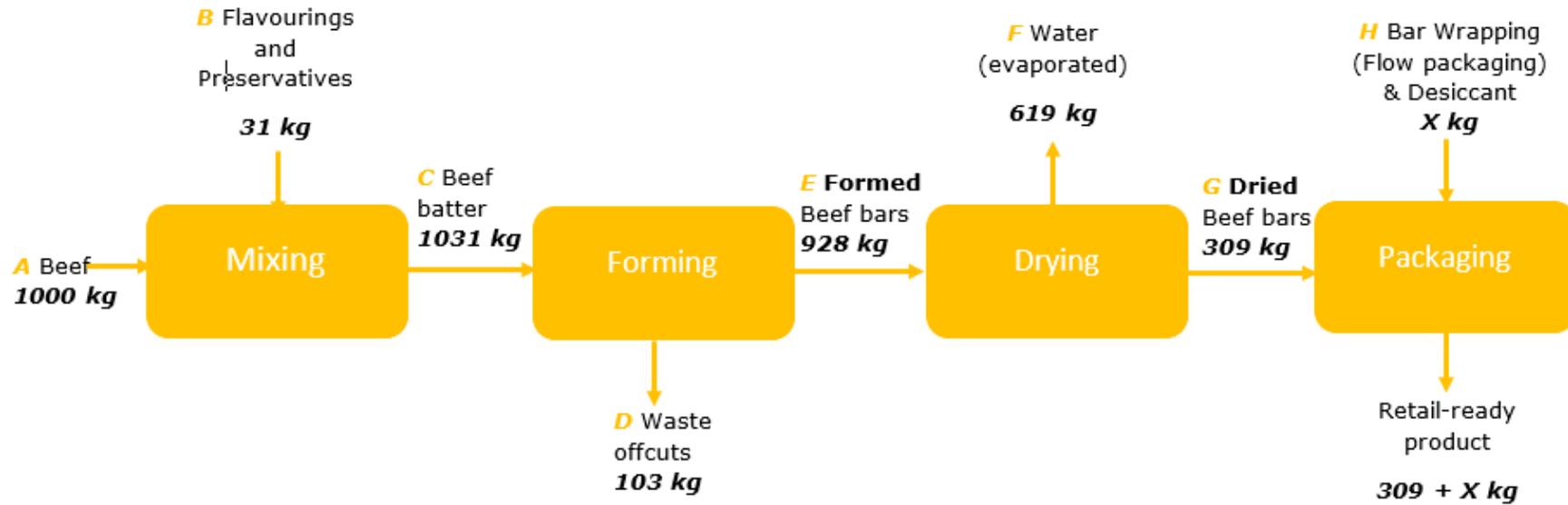


Figure 43: Process Flow Diagram for formed beef snack bars, assuming 1000 kg raw beef as a feedstock and 10% waste at the forming stage and no waste before the packaging stage. In reality there may be some waste.

Depending on bar pack size (25-45 g), the process depicted above could produce approximately 10,000-12,000 bars.

Broth

Broths are produced by boiling bones with excess water, chopped vegetables and seasoning until thickened. An example of a process flow diagram for a basic broth is shown in Figure 44.

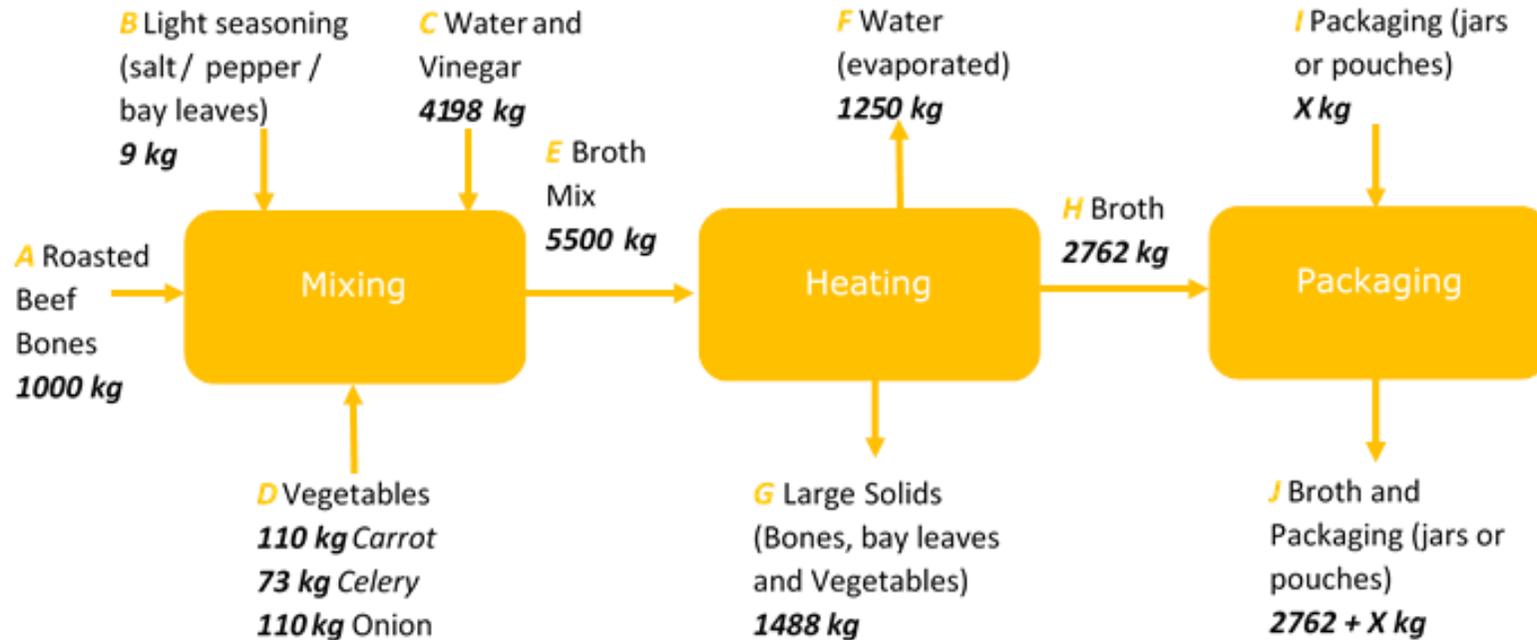


Figure 44: Process Flow Diagram for bone broth, assuming 1000 kg raw beef bones as a feedstock. In reality there may be some waste. We can also assume the vegetables absorbed some liquid too, on the order of a weight gain of approximately 15%. After heating, the broth may also be emulsified so there would be an extra mixing step. A typical solids content with this form of single-stage preparation is 20-30% (CSIRO Bone Stock Preparation Note).

Depending on pack size (100-400 g), the process depicted above could produce approximately 6,500-25,000 packs.

Broth Powder

Broth powder can be produced by drying bone broth via thermal means. An example of a process flow diagram for a basic broth powder is shown in Figure 45 as an extension of Figure 44, starting from Stream H, which is processed broth.

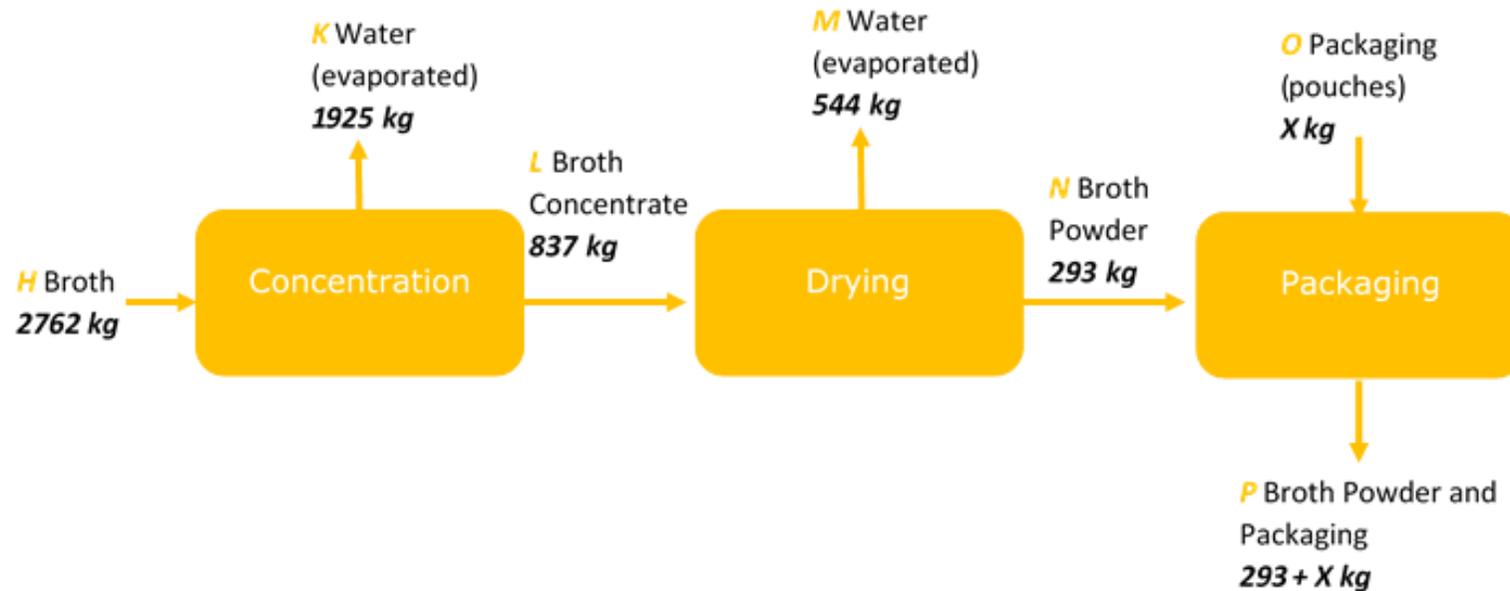


Figure 45: Process Flow Diagram for bone broth powder, assuming broth feedstock as per the bone broth process in Figure 44. The assumption is that the typical solids content of the broth is 20-30% (lowest value assumed for this Figure) concentrated and dried down to approximately 3% moisture, similar to other commercial products.

Depending on pack size (100-400 g), the process depicted above could produce approximately 725-2900 packs.

Sous Vide Packs

Sous vide meal packs are produced by packaging meat with ingredients, vacuum packing and then slow cooking via sous vide method, which can be done either in a water bath or steam oven. This process differs in that primary packaging occurs near the start of the process and very little liquid is lost. An example of a process flow diagram for a basic beef curry is shown in Figure 46.

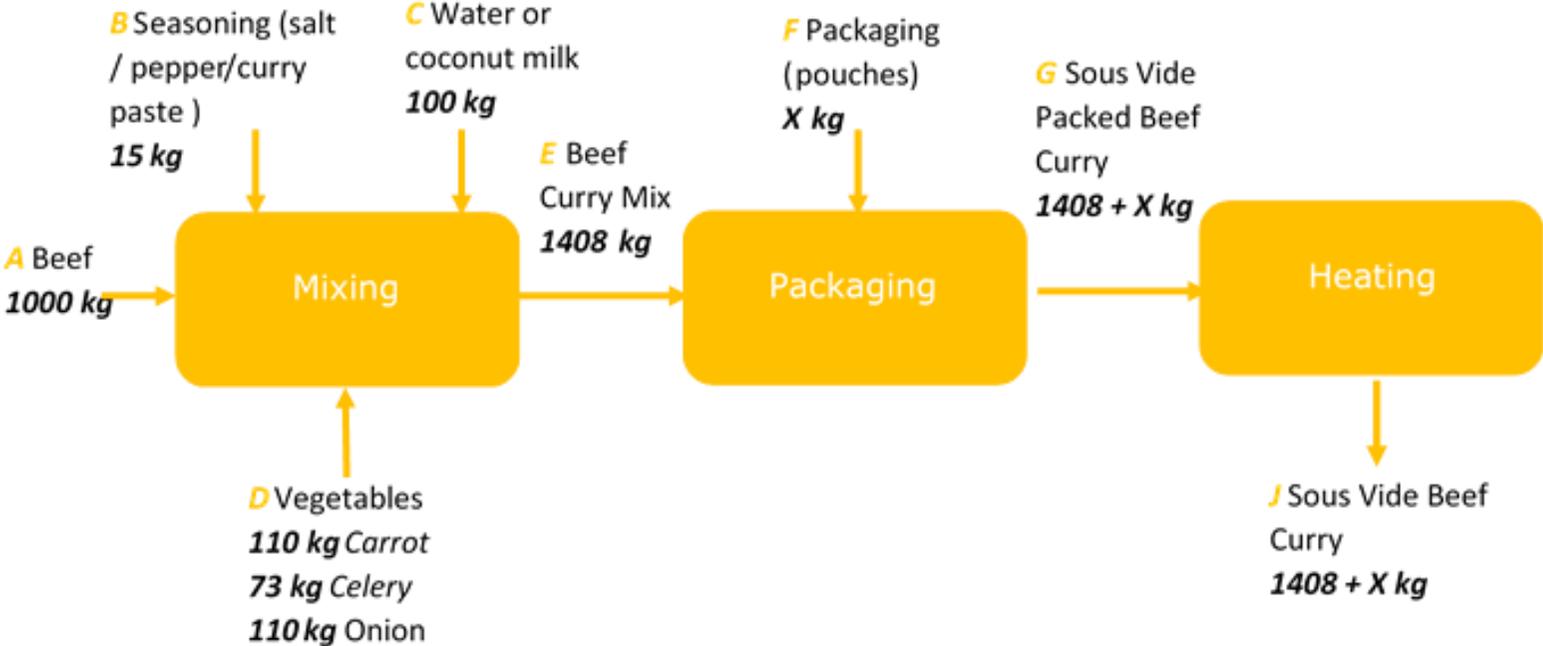


Figure 46: Process Flow Diagram for sous vide meal, assuming 1000 kg raw beef as a feedstock. In reality there may be some waste.

Depending on pack size (250 g-20 kg), the process depicted above could produce approximately 70-5500 packs.