



final report

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Prepared by: Emmy Li
Argyle Foods Group

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Farm Gate to Plate – Preliminary Study of Argyle’s China Retail Ready Solution

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Abstract

Argyle has established a pre-packed red meat product range that suits China retail markets under frozen thawed supply chain model, to be able to supply retail ready red meat produced in Australia and then delivered to China retailers directly.

This project will extend and construct the Australian red meat into the global scaled value chain with the concept of “Farm Gate to Plate”, and gives China retailers that are not familiar with the ranging and selling case ready beef products, a simple profitable solution to range traceable, branded red meat with benefit of good meat colour, extensive chilled shelf life, minimal shrinkage and less complication of needing educated staff to manage this new but rapidly growing category.

冷冻 - 解冻 - 冰鲜

FROZEN – THAWED – CHILLED on shelf

将冷冻产品移至摄氏0至4度的陈列冷冻柜解冻

It takes about 4 hours to thaw from frozen to chilled on a chilled displayed shelf temperature set at between 0°C to 4.0°C



Figure 1: Diagram of frozen thawed concept -- Frozen thawed supply chain concept and planogram at store -- Shipped frozen, cleared frozen and delivered to the store frozen, established the thawing procedure under HACCP program and then displayed chilled with 21 days shelf life from day to display, technically zero risk of shrinkage or mark down to retailer.

Executive summary

Chilled retail pack development is facing distribution issues, such as fragmented demand due to the smaller niches and channels, higher logistics costs due to high ordering frequency and small order amount, as well, the limited product life restricts the country wide distribution. As a result, the average prices for chilled retail packs in the meat cabinet have been double of the prices of similar retail packs in the freezer. Experience has taught us that the cold chain is not developed enough yet to completely trust and this is eroding value from the value chain.

Frozen thawed solution

- Technical innovations of “Frozen Thawed” product and its supply chain model allow Argyle to present a case ready country of origin packed product that can be better managed through the cold chain by staying frozen up until the point of merchandising.
- Key Objective in Case Ready for China is to replicate the Argyle strategy achieved in Hong Kong and Taiwan to be the first supplier of major retailers with affordable meat packed in long shelf life, well presented retail packs with branding, SKU name, barcodes and use by dates.
- The Result gives retailers that are not familiar with red meat, a simple profitable solution to supply traceable, branded chilled red meat with good meat colour, extensive shelf life and minimal shrinkage without the complications of needing educated staff to manage this new but rapidly growing category.

Benefit for Australia red meat industry

- Extend Australia red meat value chain from ‘Farm Gate to Plate’ to China retail market, including online channels with the full range of activities that are required to bring a product from its conception, through its development and trials, its sourced raw materials, its marketing, its distribution and its support to the final consumer.
- Offer significant National benefits to the red meat industry and regional Australia Supports Grass Fed and EQG programs, in conjunction with balancing carcass utilization and enable secondary cuts to be used into high-quality value-added products for retail and E-commerce market channels.
- Create global value chain activities from Australian processing plant to China retailers including newly established inbound logistics, operations, outbound logistics, marketing and sales, and service.
- Develop relationship with major supermarkets and E-commerce companies in China Establish cost effective supply chain model for country wide distribution.

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1 Background

In past 20 years, the beef consumption has increased rapidly in China and the increasing middle-class family Chinese beef market’s strong uptrend has had massive growth with imports. In recent 5 years, the high value share for chilled beef is developing and estimated as 1,000 ton per year, the stable demand for chilled beef is concentrated in Shanghai, Beijing, Nanjing and Guangzhou Shenzhen those tier 1 cities.

CHILLED	2015	2016	2017	
Qty Ton	6,692	6,833	459	
CFR \$	7.44	8.36	10.15	
SHANGHAI				
Qty Ton	4,462	4,243	351	Stable High
CFR \$	8.53	10.35	11.43	Increasing
GUANGZHOU				
Qty Ton	22	35	1	Decreasing
CFR \$	10.22	8.25	6.99	Decreasing
NANJING				
Qty Ton		191		Spot
CFR \$		6.31		Spot
BEIJING				
Qty Ton	187	22	1	Decreasing
CFR \$	5.55	10.04	5.81	Instable
HUANGPU				
Qty Ton	25	14		
CFR \$	5.74	5.85		
CHONGQING				
Qty Ton	2	32		
CFR \$	7.90	5.37		
TIANJIN				
Qty Ton	766	651	25	
CFR \$	5.58	5.44	5.61	
ZHENGZHOU				
Qty Ton	123	226		
CFR \$	5.44	5.12		
SHENZHEN				
Qty Ton	1,105	1,418	80	
CFR \$	4.83	4.60	6.03	

Table 1: Mapping chilled beef demand in China

Among all the destination ports which have received the chilled beef, Shanghai, Guangzhou, Nanjing and Beijing have presented medium high prices. Shanghai has increased price with a stable demand, while Guangzhou and Beijing decreased demand. Nanjing had spot demand.

Pre-packed portioned beef cuts started appearing in the chilled retail cabinet, however, they are either made of the raw material that are from local beef production or portion packed in local factories of using defrosted imported primal. MLA’s Insights2Innovation Rural RD for Profit program (V.RDP.1000), highlighted similar growth opportunities and constraints.

However, the chilled retail pack development is facing distribution issues, such as fragmented demand due to the smaller niches and channels, higher logistics costs due to high ordering frequency and small order amount, as well, due to the limited product life restrict to the country wide distribution. As a result, the average prices for chilled retail packs in the meat cabinet have been double of the prices of similar retail packs in the freezer. Experience has taught us that if the cold chain is not developed enough yet to completely trust, this erodes value from the value chain.

Technical innovations of “Frozen Thawed” product and its supply chain model allow us to present a case ready country of origin packed product that can be better managed through the cold chain by staying frozen up until the point of merchandising.

2 Project objectives

- Develop a preliminary business case using the framework of Argyle-Walmart China retail ready planned program.
- Preliminary business model/case – Argyle Farm Gate to Plate value proposition – retail ready chilled Australian red meat mechanised in China.
- Case study on the commercial model – frozen thawed, along the value chain.
- Develop innovation capability within Argyle to transform insights to innovation.
- Food safety and traceability of the frozen thawed model.
- An indication of the value created and captured in this offer beyond current commodity is to be presented in the form of cost / benefit analysis.

3 Methodology

3.1 Workshop of steering committee group

The steering committee provided whole-of-project strategic direction and oversight of critical decisions and progress of The Meat & Livestock (MLA) project V.RMH.0005. The critical “pivot” decisions include commercial and research design inputs to ensure that they meet MLA’s requirements across validating Desirability – Feasibility – Viability assessments and align the development and oversight of the implementation of the project strategies and plans.

3.2 Extracting experiment data from ‘Consumer Deep Dive’ – MLA/Argyle collaborative marketing program

A collaboration project with MLA, Argyle and Walmart established to encourage consumer confidence and deliver customer focused solutions for red meat, after frozen thawed products have been put in the initial 5 stores for trial. Set up pain/gain points and test assumptions within market trials and consumer feedback in order to continually improve the performance of the red meat category by informed consumer outcomes as a result of market feedback. Developed a case study in conjunction with Argyle/Walmart to demonstrate the effectiveness of customer centric R & D and future growth strategy.

Experiment of observation of pain/gain points has taken place through in-store demonstration in Shenzhen Walmart stores.

- 4 sessions – Sampling during Friday / Saturday
- Product sampling (Steaks and stir fry)

During the in-store demo, 27 consumers has been interviewed by the semi structured questions:

- i. I noticed you purchased / did not purchase this product - can you let me know what you were looking for to make your decision?

- ii. You were looking at an Australian Meat product - did you find the information you needed about the Australian country of origin? What information was / was not of value? Why is country of origin important to you?
- iii. Can you tell me how you will be cooking this meal / when will it be cooked? Has the product provided the information you require?

General observation from the interaction with customers in a Walmart store:

- No one asked grass / grain
- 20 sirloins sold on Friday afternoon during sampling however without chef activity only 10 briskets packs were sold and no sirloins
- A number of shoppers on Saturday walked past and refused sample
- Fresh / wet section very busy on Saturday lunch time
- Male wanted to learn to cook
- Fresh / wet - Pick up with tongs / plastics bags - turn around / look smell / prod
- Copied sticker on floor - Competitors were looking at us by second day - first to markets may be short lived
- No one understood / asked thawed / frozen product
- I represent Australian farmers is better than Australian beef industry
- Afternoon shoppers will sample product as compared to morning
- Consumer very open to participate in interview (only one refused because on a rush)

3.3 Other steps in the project

- i. Extracting information Argyle/DCH partnership great China strategy.
- ii. Extracting information of Walmart in-store ‘Frozen Thawed Retail Display’ procedure training manual, HACCP program of thawing procedure and in store labelling system.
- iii. Scope work of MLA shelf life prediction modelling contract with TAS University.
- iv. Scope document and prototype of Blockchain project.

4 Results

4.1 China Retail Ready Solution

4.1.1 Proposed value proposition of ‘Farm Gate to Plate’ concept

Frozen thawed is an innovative supply chain model, in order to export Australia packed retail ready packed beef under the true concept of ‘from farm gate to retail shelf’ by shipping frozen, custom clearing frozen and delivering to the store frozen, and then thawing the product under the Walmart HACCP program to achieve displaying chilled with 21 days shelf life from day to display, technically zero risk of shrinkage or mark down to retailer. Gives retailers that are not familiar with red meat, a simple profitable solution to supply without complications of needing educated staff to manage this new but rapidly growing category.

- Made in Australia
- Traceable
- Branded chilled red meat with good meat colour
- Extensive shelf life
- Minimal shrinkage

4.1.2 Process map and value chain

1. Operation flow

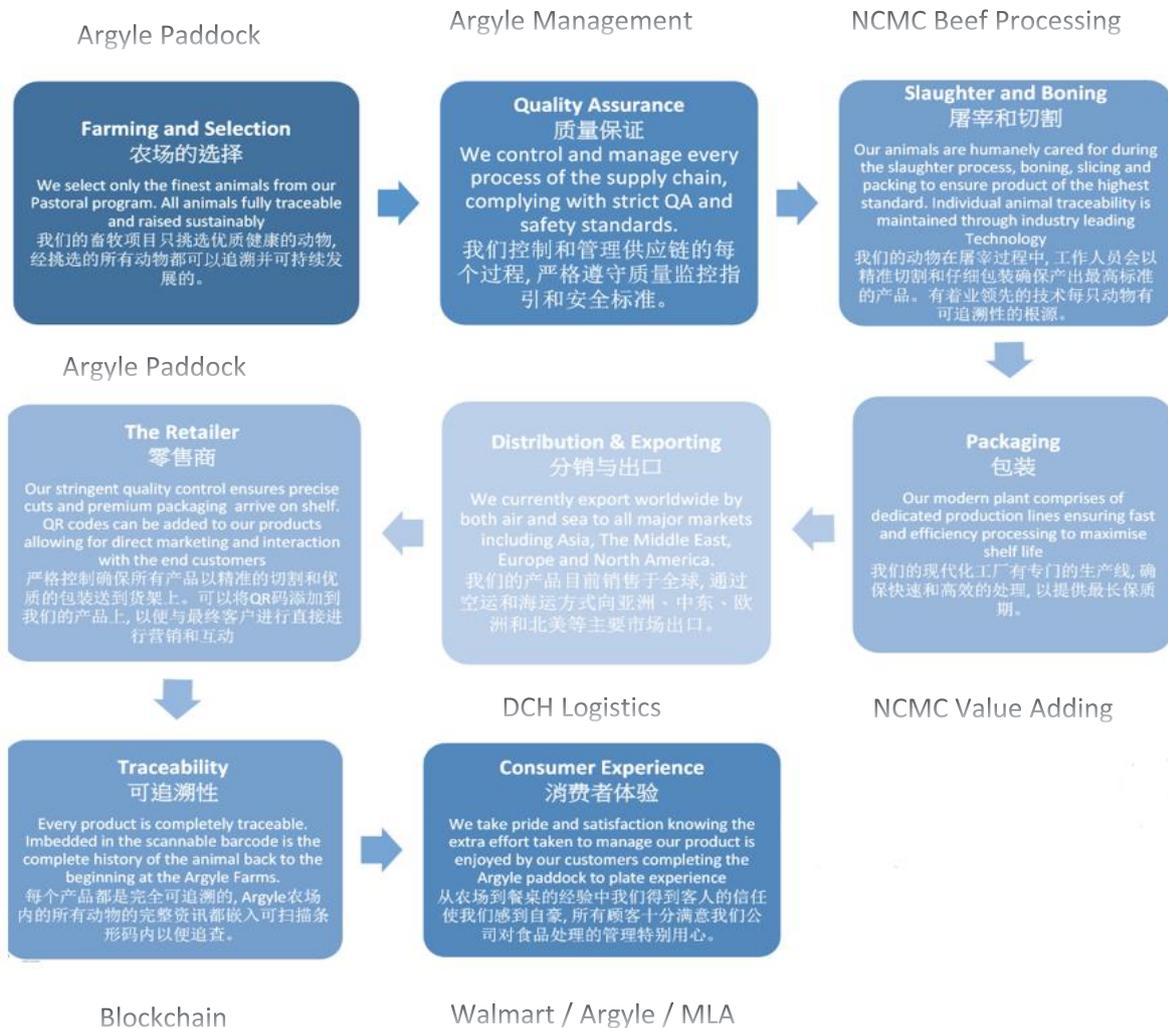


Figure 2: Process map (Argyle Farm – Abattoir – Processing Plant – Export and Distribution – Retailor)

2. Value chain -- from farm gate to retail shelf

Table 2. Value chain

Procurement	Processing	Exporting / Distribution	Warehousing	Retailor
<p>AFC Australian team: Argyle cattle or sourcing cattle sourced by Argyle PTY</p> <p>1) Custom-made order 2) Strategic sourcing (for sales from inventory – own product portfolio based on meeting</p>	<p>NCMC Processed and packed at Est. 239</p>	<p>DCH › Acting as import agent and consignee › Authorized import license and related business licenses › CIQ, Customs and port officials › Air and sea freight</p>	<p>DCH Warehouse cross the country (chilled and frozen) or third-party warehouse.</p>	<p>AFC Hong Kong team: Sales DCH: Logistics and/or competitive high-end</p>

Chinese market demands)			logistics provider.
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4.1.3 Preliminary product range and process specification

8 skus of beef steaks and portion cuts packed in dar fresh packaging has been developed as preliminary range under ‘The Healthy Farmer’ brand for Walmart initial 5 stores launch.

1. Product specification:

Product Description		Pack Size	Spec
Western Style Cuts (Pan Fry, BBQ & Grill)	Beef Striploin Steak (tier 1)	200g	Grass fed, HGPF, fat thickness <5mm
	Oyster Blade Steak (tier 2)	200g	Grass fed, HGPF, fat thickness <5mm
	Chuck Roll Steak (tier 2)	200g	Grass fed, HGPF
Chinese Style Cuts (Stew & Slow Cook)	Brisket PE (tier 2)	200g	Grass fed, HGPF, fat thickness <8mm
	Intercostals (tier 2)	200g	Grass fed, HGPF, fat thickness <5mm
	Beef Shine (tier 2)	200g	Grass fed, HGPF
All Around (Stir Fry etc)	Beef Dice (tier 3)	180g	Grass fed, HGPF, 20x20mm
	Beef Mince (tier 3)	180g	Grass fed, HGPF, 85CL

2. Process specification -- attached in appendix.

4.2 Food safety and traceability

4.2.1 ‘Frozen to Thawed’ -- display procedure of frozen thawed products

Products are shipped, cleared and delivered to the stores as frozen, stock undergo QA inspection mainly a temperature check upon receipt, the targeted temperature should be below -14°C, stock and then are kept in the freezer (freezer temperature ≤ -18°C) until the thawing process takes place.

1. Thawing process

- Move the products within cartons from the frozen storage to a chilled storage
- Remove carton lids and let products thaw in the cold storage (≤ 4.0°C condition) for initial 4 hours, check the products if reach semi frozen state
- Apply a defrosting day sticker onto the product sleeve – from the defrosting day onward, the life of the thawed product is 21 days, this shelf life statement has been pre-printed on the artwork.

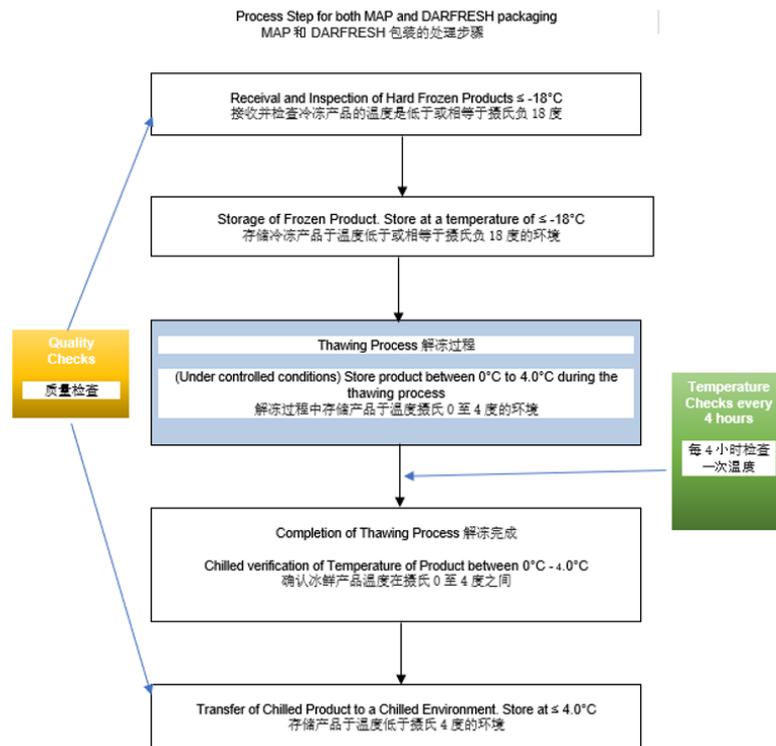


Products are then displayed on the chilled shelf (at 4-7°C) for further thawing process, it normally takes maximum 4 hours to fully defrosted. The fully thawed products possess maximum 21 days life on the chilled meat case.



Frozen / Thawed / Chilled 冷冻 - 解冻 - 冰鲜

2. Figure 3. HACCAP diagram of frozen thawed procedure



Source: Walmart training manual

4.2.2 Shelf life validation of frozen thawed product

Scope of work

Shelf life trials of using MLA prediction modelling will be conducted at the University of Tasmania between July and November 2019 with the following aspects:

- Three different beef products (striploin steak, dices and mince)
- Two different packaging systems (i.e., Dar Fresh packaging and modified atmosphere packaging (80% O2 and 20% CO2))
- 30 packs per sku

All products will be stored frozen (at -18°C) for 1 or 3 months before the products are thawed and stored at 4°C for determination of their shelf life. Dar Fresh packaging is predicted to last 21 days to 28 days and MAP packs are predicted to last 6 – 8 days.

The shelf life of these product will be determined based on microbial analysis (total viable counts and numbers of lactic acid bacteria) and organoleptic assessment (mainly colour before opening by a group of at least 4 people). The data generated will then be used to compare with the UTAs/MLA shelf life prediction models for validation purpose.

Report of result

A summary of shelf life validation result will be submitted in a report format at the end of trial.

4.2.3 Traceability -- Blockchain

Blockchain is a digital platform that records and verifies transactions across different industries and countries in a transparent and secure manner. Supply chain data points are stored in a digital ledger where they are cryptographically timestamped and replicated on a blockchain network. This ledger format provides the ability to view a complete history of an asset and every one of its touch points in the supply chain. The blockchain replication of the ledger then provides a cryptographically verifiable assurance that the data has never changed, deleted or temporally altered. Replication underpins the system to provide four core features:

- Integrity - assurance that data has not been manipulated or corrupted
- Authenticity - assurance we know who sent/created the data
- Non-repudiation - assurance that the author/sender cannot deny an action
- Confidentiality - only authorised people see the data

Argyle block chain prototype and scan result: (powered by ‘Trust Provenance’ – blockchain service provider)

- 1) Open WeChat on your mobile
- 2) Select the top right "+" symbol
- 3) Select SCAN
- 4) Scan this QR code



Table 3. QR code scan result

<p>5) Scan result -- Up appears a premium Argyle tenderloin steak 7) The "About" tab (to be developed) can also have details such as the Argyle Prestige meats story/video, cooking tips, other.</p>	<p>6) Scan result -- Scroll down to see product details and the BLOCKCHAIN hash references to reflect touchpoints through the supply-chain (aspect to reflect the paddock-to-plate journey, biosecurity, farm specifics, breed specifics, etc)</p>
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Argyle Prestige Meats
 Paddock-to-Plate quality assurance

Your product
About

Tenderloin Steak
 Product #283245



PRODUCT

Description: Tenderloin Steak

Packing Date: 04/06/2019, 12:27:38 am

Pack Weight: 0.3 kg

Batch No.: 283245

Manufacturer: Argyle Prestige Meats

Country of Origin: Australia

FARM

Farm Owner: Argyle Prestige Meats

Farm PIC Code:

Location: NSW, Australia

LIVESTOCK

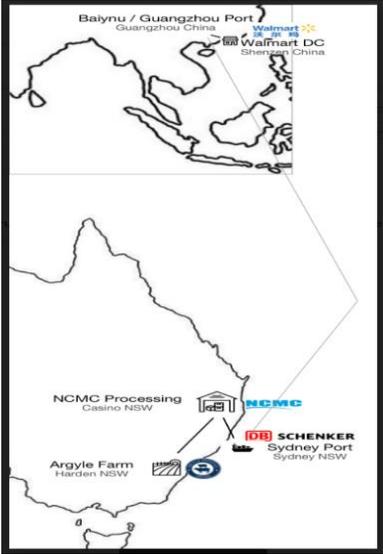
Breed: Black Angus

Age: 34 Months

Feed: Grass

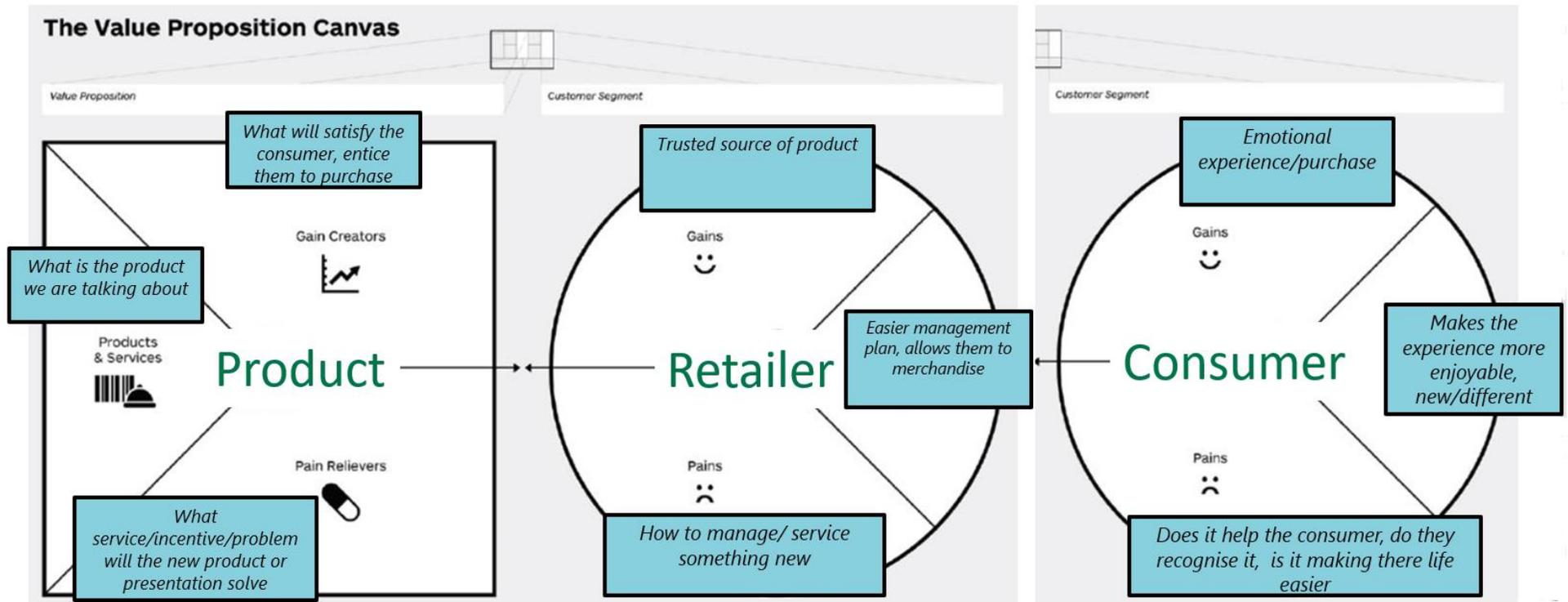
NLIS Identifier:

Trust Provenance Trail

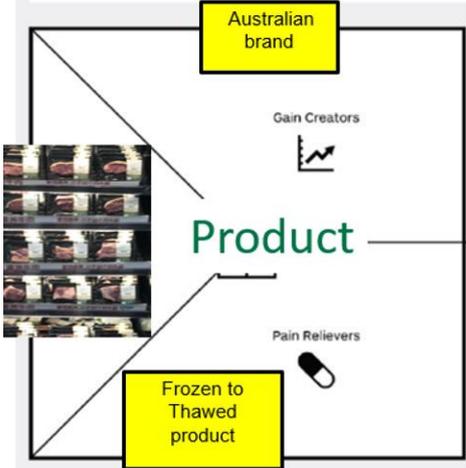
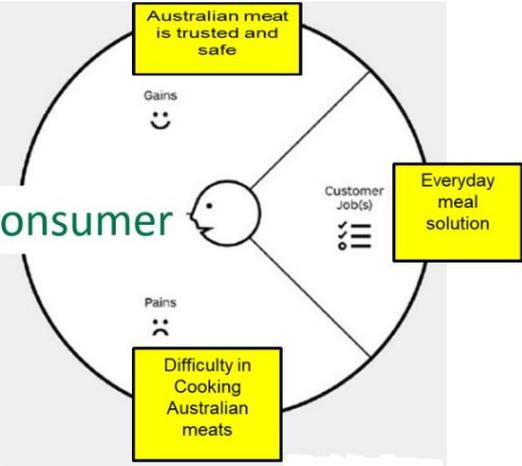


4.3 Value proposition affirmation

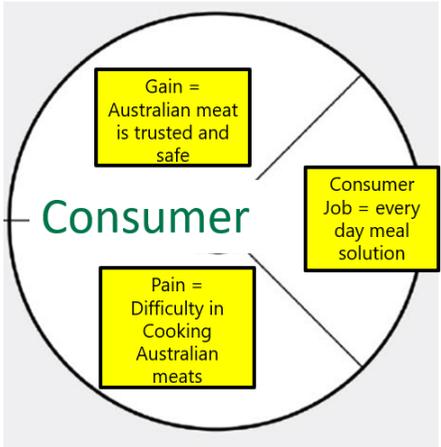
4.3.1 Approach – design led thinking



4.3.2 Assumption of pain / gain points of frozen thawed model

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Product</p>	 <p>The diagram shows a central box labeled 'Product' with an image of packaged meat. To its left, a box labeled 'Australian brand' is connected to the product by a line. Below the product, a box labeled 'Frozen to Thawed product' is also connected. Above the product, the text 'Gain Creators' is written with a small upward-trending line graph icon. Below the product, the text 'Pain Relievers' is written with a pill icon.</p>	<p>Provenance is important to the consumer. The cold chain is not developed enough yet to completely trust and this is eroding value from the value chain.</p> <p>Gain: Frozen/Thaw allows Argyle to present a case ready country of origin packed product that can be better managed through the cold chain by staying frozen up until the point of merchandising.</p> <p>Pain: Understanding that with a new concept comes a responsibility to educate the supply chain in how to effectively merchandise the value proposition to the consumer</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Retailer</p>	 <p>The diagram shows a central circle labeled 'Retailer'. Inside the circle, there are two sections: 'Gains' with a smiley face icon and 'Pains' with a frowny face icon. A box labeled 'Australian = superior point of difference' is connected to the 'Gains' section. A box labeled 'Stock Profitable Products' is connected to the 'Gains' section. A box labeled 'Stock Management' is connected to the 'Pains' section.</p>	<p>The name Australian will support selling the product Retailers struggle with the cold chain management of products and heavy write offs known as shrinkage are common. Retailers are forced to manage complex processing on site due to packaging and the bulk form in which the product is delivered</p> <p>Gain: The new freeze thaw model offers the retailer the opportunity to merchandise an Australian packaged product without having to manage the processing or develop capability of his team to deliver it in usable format to their customers.</p> <p>Pain: Stock management appears to be the only pain in this scenario to which they are perfectly suited to manage this part of the retail process</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Consumer</p>	 <p>The diagram shows a central circle labeled 'Consumer' with a simple face icon. Inside the circle, there are two sections: 'Gains' with a smiley face icon and 'Pains' with a frowny face icon. A box labeled 'Australian meat is trusted and safe' is connected to the 'Gains' section. A box labeled 'Everyday meal solution' is connected to the 'Gains' section. A box labeled 'Difficulty in Cooking Australian meats' is connected to the 'Pains' section. The text 'Customer Job(s)' is written near the consumer icon.</p>	<p>The consumer has repeatedly confessed that they don't trust their own industry systems and that a packed in country of origin product is a better solution for them.</p> <p>Gain: Packing product by set weight makes the purchasing decision easier for the customer to understand exactly how much they are spending and how to ascertain the value proposition in the purchase.</p> <p>Pain: The only lingering problem is the uncertainty in how to prepare and cook the product. Also new packaging solutions come with their own inherent problem of colour and the consumer does not fully understand this</p>

4.3.3 Observation of pain / gain points of frozen thawed model after the experiment

	<p>Consumer</p> <ul style="list-style-type: none"> • Most purchased for a meal that night or within the next few days • Steak was the preferred to come with Marinade • According to consumers the most consumed dish at home was stir fry and stew, but the new packaging style made recognizing the contents difficult • Some had purchased for their parents • For these with children they make the purchasing decision • Pack size was too small for stew as they make bigger batches but OK for steak • Some were not aware of contents, couldn't discern between the packs (steak or diced) • Other meal type was gym / protein hit snack
	<p>Gains</p> <ul style="list-style-type: none"> • Provenance = Walmart trust • For those that recognised Australia, it was the word (translated) and not the image or true Aussie brand - • Packaging indicated new to Walmart and by definition from the consumer of high quality therefore = imported • For these who had travelled to Australia – packaging was similar to what they saw in Australian stores and were comfortable • Many consumers were not aware they were purchasing Australian, most were happy when told • Lacked trust in local (China) product, however, were ok to purchase local product for stir fry or stew (<i>which defies our thinking about the importance of provenance</i>) • For some the farm location was more important than where it was processed/packaged (weak signal)
	<p>Pains</p> <ul style="list-style-type: none"> • Sampling led to purchase • Most were not aware of how to cook steak, sampled was seen as a way of educating local consumers • Many wanted steaks to be marinated as this was their preference, however many realised that marinated steak was often associated with a low-quality product • Product being sampled led to product on shelf being purchased. • Many would like additional material on how to cook, but unclear on what format (some said images, QR, some recipes) • Price for steak was reasonable given it was seen as imported / high quality • For those that did not purchase, it was because they felt they could not replicate the flavour of the sampled product • For these with children, they make the purchasing decision • Dice and stir fry packs were not recognized by the consumer. • Too much detail on the pack label and not enough descriptions on what the product is and could be used for

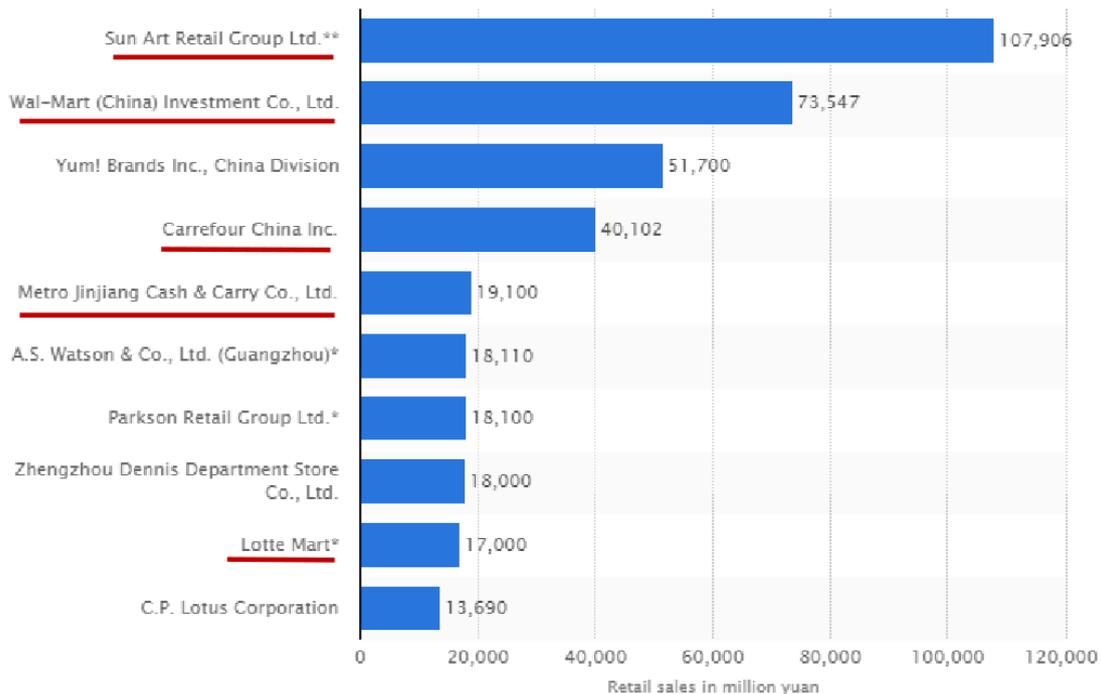
4.4 Size of Price

4.4.1. Walmart China profile

Hypermarkets are a top 3 growth category and therefore worthy of consideration by Australian beef exporters. In addition, the MLA Attractive Cities project found that consumers of Australian beef are more likely to buy beef from hypermarkets. Over 60% of consumers who had eaten Australian beef (in the last year prior to being surveyed) purchased beef through hypermarkets compared to 49% of those consumers who eat beef most often generally, but not specifically Australian beef (Hendry, 2016b). The interpretation provided in the MLA Attractive Cities project was that this could be linked to greater availability of Australian beef in hypermarkets compared to more traditional retail channels, and therefore if consumers see it on shelves they become more aware of it and more likely to consider purchasing it. Among the foreign super/ hypermarket chains, by size of revenue sales, figure 4 of below shows that Wal-Mart is the 2nd largest leading foreign retail China operator, possess 439 stores (by 2016).

Figure 4. Leading Foreign Retail China Operator

By retail sales in million yuan (2015)



4.4.2. Initial 5 Walmart stores trial and result

Table 4 shows the sales of initial 2 weeks of 5 trial stores, steak cuts, such as striploin and oyster blade are performing well. The mark down or dump rate is significantly low, if managed properly and they display what's sold per week mark downs and waste are less than 5% compared to 25% plus for chilled supply chain.

Table 4: First 2 weeks sales data on first 5 store (from 9th Nov to 19th Nov)

Skus	Store Ranged	Packs Sold/Store/Day	Days Sold	Total Packs Sold
Striploin Steak (39 yuan/pck)	5	2.8	14	197
Oyster Blade Steak (29 yuan/pck)	5	2.4	14	166
Chuck Roll Steak (29 yuan/pck)	Stock did not arrive on time			
Point End Brisket (29 yuan/pck)	5	1.0	14	72
Shin Shank (29 yuan/pck)	5	1.0	14	68
Intercostal (29 yuan/pck)	5	0.7	14	47
Beef Dice (19 yuan/pck)	5	0.6	14	40
Beef Mince (19 yuan/pck)	5	0.6	14	40

Store trial delivered satisfactory result; an offer of national launch was received from Walmart vice president of fresh food section.

4.4.3. Growth plan

1. The roll out plan is following, stage 1 has been completed, and the 2nd stage has been commenced recently, so far 138 stores have been launched.

Stage 1 – completed

South China	Guangdong	68 stores
	Fujian	27 stores

Stage 2 – In process

Easter and North China	Shanghai	18 stores
	Zhejiang	30 stores
	Jiangsu	24 stores
	Beijing	2 stores

Stage 3 – FY 19/20

West China	Sichuan	23 stores
	Chongqing	13 stores

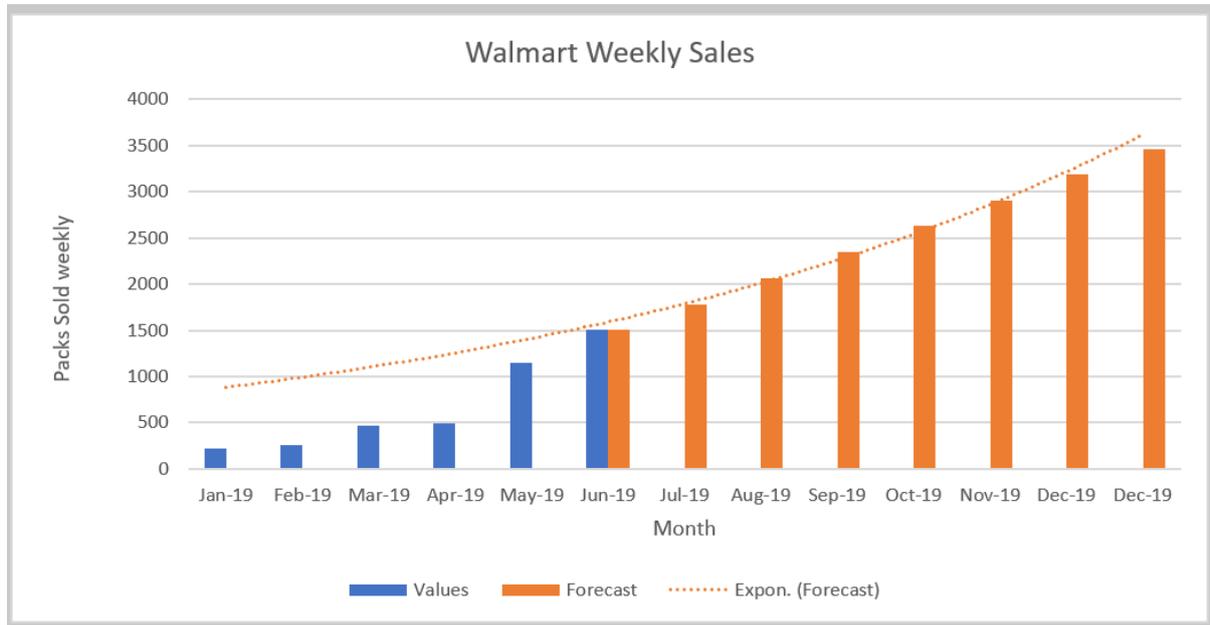
2.Sales data and forecast

The table below shows that the total packs sold in 7 days from January to June, compare to weekly sold volume in January, the weekly volume sold of has been increased by 85%, this is because the stores have been increased from 20 (in January) to 138 stores in June, which is also by 85%.

Table 5. Weekly total pack sold from January to June in 2019

SKU's	Item Desc 1	Jan 1st - 8th	Feb 1st - 8th	March 1st - 8th	April 1st - 8th	April 22nd- 29th	May 1st - 8th	May 28th - June 4th	Total
Oyster Blade	牡蛎牛排.	44	44	72	75	45	98	143	521
Striploin	外脊(西冷牛排).	86	58	95	117	106	155	310	927
Chuck	上脑牛排.	30	61	110	68	24	60	115	468
PEB	前胸肉.	8	1	22	27	59	161	126	404
Shin Shank	精修腱子肉.	6	24	36	39	54	138	239	536
Intercostals	肋条肉.	18	17	35	33	65	118	179	465
Diced	肉丁.	15	21	32	53	115	216	272	724
Mince	肉糜.	17	36	64	86	97	208	126	634
Total		224	262	466	498	565	1154	1510	4,679

Figure 6. Graph of 6 months year sales growth



3. Promotion and merchandising plan

- 1) In store demonstration -- we will be arranging in store promotions to push the brand. The plan is detailed below.
 - a. We will target 10 stores for a period of a month.
 - b. A promoter will spend two days (between Thursday- Sunday) a week in the store
 - c. The promoters will be educated on the product, the benefits and cooking methods. They will verbally sell the product as well as conduct cooking and tasting.
 - d. Promoters will then move to another 10 stores the next month and repeat the above.
 - e. We will focus on key stores, mostly modular stores.
- 2) On ground support -- we have employed a new team member who is Guangzhou based. His role is detailed below.
 - a. To visit stores in a strategic route on a regular basis
 - b. To check and tidy Healthy Farmer display
 - c. To develop a relationship with the category managers of each store and become point of contact.
 - d. Train and educate staff on the frozen thawed process and associated benefits
 - e. Manage the team of promoters
- 3) Product promotion -- we will support sales with promotions and discounts. Options are below.
 - a. Discount for bulk buy (2 for 1)
 - b. Focus on slower moving SKU's
 - c. Promoters to push this agenda in store.

4.4.4 Cost Benefit analysis of frozen thawed model retail ready

1. Increased profit margin – retail ready pack is pre-portioned and packed to be marketed in retail channel with a well-established branding strategy, it is defined as value adding product or differentiated product which delivers increased sell price compare to the primal sale. The primal of grass fed A beef is sold as \$12.00/kg, which is RMB 69 yuan, while the retail ready pack of using same raw material is sold RMB 39 yuan per 200g pack price point in Walmart, to convert it to price/kg, is RMB 200 yuan .
2. The distribution cost of frozen thawed supply chain compares with chilled model - Frozen thawed is 17% of Chilled air freight cost per kg
 - a) Sea freight @ 7.5MT = 40c AUD per kg + Clearance (1500 USD) 1.50 RMB per kg and local Delivery 2 RMB per kg = \$1.15 per kg,
 - b) Air Freight @ 650kgs = \$2.30 AUD per plus Clearance (1500 USD) 16 RMB per kg and local Delivery 5 RMB per kg = \$6.75 AUD per kg
3. The mark down or dump rate compares with normal chilled product -- If managed properly and they display what is sold per week mark downs and waste would be less than 5% compared to 25% plus for chilled. Reduced retail markdowns it will assist in delivering a longer shelf life due to reduced raw material microbial load. This is reflected as a benefit of less markdowns or dumps at retail because the product has more life on shelf, also as the products are transported as frozen state, the product life does not get lost during the shipment. The saving is estimated as the difference between the downgraded product price and the full product price, multiplied by the percentage of total annual chilled product estimated to reach the price downgrade threshold. The retailer realises this full benefit.

5 Discussion

Through in-store consumer interviews to find out if the experiments have been successful and, on the mark, giving the consumer what they want. Feedback on the NPD to evaluate what was effective.

Next steps will be:

- Conduct EPD / NPD on cuts and pack size and trial different pack sizes to entice the consumer to try the product.

Tier	Product Description	Pack Size	Note of Revamp
1 Western Style	Striploin Steak	180g	Size reduction
1 Western Style	Cube Roll Steak	160g	Introduce mini steak
2 Western Style	Oyster Blade Steak	180g	Size reduction
2 Western Style	Chuck Roll Steak	180g	Size reduction
2 Western Style	Rump Steak	160g	Introduce mini steak
3 All Around sku	Beef Strips	180g	Replace to dice for stir fry
3 All Around sku	Beef Mince	180g	No change

- Continuously build NPD pipelines, new ideas such as marinated and ready to cook products.
- Make Australian provenance message more visible.
- Produce a video using typical Chinese cooking apparatus.
- Use the Walmart data base to reach out to consumers and find out how they are preparing / cooking the product and request pictures and descriptions, feedback Prompt the customer to contribute by small offer back promotions to share experience.

6 Conclusions/recommendations

Further NPD and marketing activities:

Experiment #1 – in store sampling with cooking instructions / formats

- Experiment #1A – packaging design / POS to highlight Australian farmer / provenance (use local Chinese agency to describe best definition of what Australia looks like to the average Chinese person) Increase visuals on the product being Australian.
- Experiment #1 B – Experiment adding marinade sachet to the purchase
- Experiment # 1C – Steaks by thickness of slice
 - Tier A prime cuts (cube roll, striploin, tenderloin *1 x 200 gram*)
 - Tier B prime cuts (cube roll, striploin, tenderloin *2 x 100gram*)

Experiment # 1D – Steaks by price

- Tier 1 prime cuts (cube roll, striploin, tenderloin)
- Tier 2 secondary cuts (rump cap minute steak, oyster blade minute steak)
- Tier 3 leg cuts (topside sizzle steak, bolar blade sizzle steak, outside flat sizzle steak)

Experiment #2 – simulate in store sampling (fridges / video/ QR codes)

Experiment # 3 – Bigger QR code displayed on shelves and packaging

7 Key messages

This project is to set up a case study for establishment of frozen thawed supply chain model and ensure the supply chain security and efficiency.

Build capability and capacity to be able to supply Australia beef to Chinese consumer preferences across all regions. This will continue to create opportunities for the Australian red meat industry. The outcome and findings obtained from this project will benefit to exporters, processors and producers who are looking to capture a share of the Chinese market.

8 Bibliography

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9 Appendix

9.1 Process specification



Product Specification Report

WALLMART CHINA - BEEF STRIPLOIN STEAK 200g

Processed at Northern Co-Operative Meat Company (Establishment 239)

Raw Material Details			
Generic Description	Beef Striploin	Code	2000119C
Cut Description	Beef Striploin	HAM No.	2140
Age of RM	<21 days	Cipher Range:	HGPF Grass Fed
Stock to be Purchased	HGPF Grass Fed Beef Striploin	Primal Size	3kg and above
Cutting Lines	Striploin is prepared from a Hindquarter by a cut at the lumbosacral junction to the ventral portion of the Flank. The Flank is removed at a specified distance from the eye muscle (M. longissimus dorsi) at both cranial and caudal ends.		
Processing Details			
Machine	I-cut	Temperature	<5°C
Program	1,2	Fat Depth	<8mm
Tenderised	N/A		
Instructions	<ol style="list-style-type: none"> 1. Trim the fat layer to <8mm, 2. Portion cut the primal into 200g -220g 		



Product Specification Report
WALLMART CHINA - BEEF STRIPLOIN STEAK 200g
 Processed at Northern Co-Operative Meat Company (Establishment 239)

Key Details			
Product Description	Beef Striploin Steak	Product Code (Casino)	240480
Pack weight	200g Fixed Weight	Tolerance	200g – 220g
Chilled/Frozen	Frozen	Shelf Life Frozen	P+12 months
		Shelf Life Chilled	P+21 days
Packaging Type	Darfresh 3 track	Carton Weight	4.8kg
Packing Details			
Pieces/pack	1	EAN	934371800538
Packs/carton	24	TUN	2404800933180706008934
Pack Items	FILM BLACK BASE 423MM 350UM FILM CLEAR TOP 420MM 100UM TRAY DIMENTIONS 230X130X10MM SOAKER PAD 141MM X 64MM NEW HEALTHY FARMER D-WRAP SLEEVE DIGITAL LABEL 50X70MM	CARTON OUTER CARTON LID CARTON LABEL	
Instructions	<ol style="list-style-type: none"> Place the soaker pad in the dar fresh tray, Place the steak neatly to the left-hand side of the tray, with the fat layer facing down, Apply Healthy Farmer D-Wrap Sleeve to the right-hand side of the pack and the Digital Label Pack 24 packs to each Carton 		

Organoleptic Criteria		
CRITERIA	RAW	COOKED
Visual	Deep purple colour of beef, with fat cover on top, less than 10mm external fat	Caramelized beef colour, with good portion of fat
Aroma	Fresh beef aroma, with no sour notes	Cooked beef aroma, no sour notes present
Taste	N/A	Fresh tasting beef flavour, no off notes
Texture	N/A	Tender and juicy texture
Microbiological Criteria		
Criteria	Limit	
Standard Plate Count	<1.0x10 ⁶	
E. Coli	<10	
Coliforms	<1000	

9.2 Image of display frozen thawed retail packs on the chilled shelf

